CHAPTER 1

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Globalization and internationalization of the economy in many countries have impacted not only the business sector but also the education sector. It is almost universally acknowledged that Higher Education Institutions (HEIs) play a vital role in the progress of advanced ‘knowledge economies’ (Secundo et al 2010; Jones et al 2005). As a key producer of new knowledge in the economy, the university’s role in supporting regional and national economic growth and development is also increasingly acknowledged (Pinhero et al 2014; Rossi & Rosli 2013). HEIs are the foundation for building the intellectual capacity of a nation. They produce knowledge and promote various learning practices for updating people’s skills and knowledge. Nevertheless, today HEIs like any other organizations operate in a volatile and dynamic environment, where they need to respond and adapt swiftly to the changes in the environment (Bates 1999; Middlehurst & Woodfield 2007). Further, policy reforms and changes in higher education systems have become top national priorities, as governments in several countries embrace the notion that higher education is a key component of their efforts towards economic and social development (Chapman 2009). The United States of America (USA) has initiated higher education reforms during the year 2013 with the objective of introducing rating system for colleges that will help not only the stakeholders to identify how much value a college truly offers but also link public funding to these colleges. Among the prevailing
themes, boosting institutional performance tops the list with the focus to maximize HEI’s ability to meet state goals such as student retention and degree completion (AASCU policy brief 2013). Further, to allocate state funds to public colleges and universities, the paradigmatic shift is from competency based higher education funding system to performance based funding system where the stress is on how and not how much. The Bologna Process, one of the most notable higher education reforms in the European Union (EU) promotes mobility by facilitating greater comparability and computability among the diverse higher education systems and institutions across Europe (Keeling 2006). However, these measures have often been accompanied by concerns about insufficient funding and declining quality in education (Kovtun & Stick 2009). Similarly, reforms and investments in countries like India (Prathap 2014; Singh & Purohit 2011), Canada (Jones 2014), and Australia (Meek & Davies 2009) aims to support high quality teaching and learning, to improve resources for research and infrastructure and to reward institutions for meeting agreed quality and equity outcomes. For example, the Minister of Human Resources Development which is responsible for higher education in India attempts to address the challenges in higher education sector by proposing various legislative bills. Some of the recent bills that were introduced in the Parliament for improving quality and transparency in higher education are The Educational Tribunal Bill, Foreign Educational Institutions Bill, and The National Accreditation Regulatory Authority for Higher Educational Bill (www.prsindia.org/).

Universities, similar to business organizations face tough competition and hence, they strive hard to achieve competitive advantage by updating their practices, services, and competitiveness through several methods (MacLaren 2012; Pratt et al 1999). Unlike business organizations, the integral business of a university is research and teaching. Yet, what sets a top university apart from its competitors is its quality of performance with
respect to knowledge outcomes. But HEIs continue to operate in a fiscally challenged environment and hence, universities and colleges employ various management strategies such as organizational restructuring, quality management, and training as a part of their ongoing learning initiatives (Pratt et al 1999). Research studies on performance measurement in universities are one of the major focuses in most of the countries. This has opened up myriad avenues for research in higher education sector. The underlying premise is that there are universally ‘good’ and ‘bad’ management practices and these practices matter in a meaningful way on how an organization performs (McCormack et al 2014). Hence, the central tenet that drives all the accreditation and governing agencies in higher education in most countries is to identify those indicators that determine the overall performance of the universities. Extensive literature review on organization behaviour suggests that learning organization culture and knowledge management practices in organizations and institutions to influence the organizational/institutional performance (Gholami et al 2013; Song & Kolb 2013; Kumar & Idris 2006). Therefore, it is important to identify and benchmark HEIs based on the organizational variables for strengthening the quality and performance that ensure continuous and ongoing learning activities in these institutions.

Organizations that have developed a strong learning culture are good at creating, acquiring, and transferring knowledge that improves organizational performance and competitive advantage (Argote 2013). Drucker (1969) pointed out that for organizations in an increasingly complex world, learning how to learn becomes indispensable. As accelerating change challenges the knowledge dynamics of our society, lifelong learning and ‘learning by doing’ has gained significant prominence. It is now increasingly accepted that any organization or institution, profit-making or not, needs to strengthen its learning practices to become innovative and sustainable. In business organizations, a culture conducive for learning and sharing of information holds considerable strategic value and helps the organization to
acquire or develop an attribute or combination of attributes that allow it to outperform its competitors (Tseng 2010). This has also become a necessary evil for non-profit organizations and institutions of higher education. Nevertheless, applying these methods to enhance the research and knowledge performance necessitates HEIs to become a truly learning organization (Metaxiotis & Psarras 2003; Rowley 1998).

Knowledge Management (KM) has found distinct application and credibility as a management tool in HEIs over the past decade. It is necessary to recognize the individual and organizational abilities, skills, experience, values, and a particular work ethos and culture. The challenges in HEIs is to identify the practices that address the organizational learning approaches organized around complex problems and in shared knowledge objects, such as reports, products, and new practices. This helps in transforming information into knowledge that result in forming a broader organizational knowledge. One result of this is the knowledge-based view of the institution, where knowledge is the critical resource enabling effective deployment and transformation of other resources (Collins et al 2001). Thus, this research study focuses upon the internal environment for institutional performance, arguably something that universities can better control in comparison to the external environment such as government policies, regulations and competition.

1.2 PURPOSE OF THE STUDY

Indian higher education sector is the third largest in the world in terms of student enrolment, next to the United States and China (Gupta & Gupta 2012). As per the year 2014 statistics, there are 37,204 colleges, 712 universities, 51 institutes of national importance and various other vocational institutes in the country (www.ugc.ac.in/; http://mhrd.gov.in/). Higher education is the fastest growing sector and has seen rise in student’s mobility
with both Indian and foreign students who apply every year to Indian universities and colleges. The EY-FICCI report (2013) on higher education suggests that with a robust higher education system, India is to emerge as a single largest provider of global talent with one in four graduates in the world being a product of the Indian higher education system. It envisages that more than 20 Indian universities would be in the list of global top 200 universities with learners from all over the world. It further envisions augmenting India’s Gross Enrolment Ratio (GER) to 50% with student enrolment of more than 70 million across the higher education system. Although there has been a surge of new institutions over the past few years to meet the demand, only a few has managed to make a mark. This necessitates the urgency to undertake reformation and rejuvenation strategies to address the current challenges that plague the Indian HEIs. Some of the issues on hand are lack of equitable access, outdated curricula and pedagogy, lack of quality among teaching staff, faculty shortages, lack of infrastructure, lack of strategic leadership for promoting learning, and relative lack of partnership amongst industry, research, and academia.

According to EY-FICCI report (2013) the need for additional skilled workforce across industry and services segments by 2030 is more than 250 million. India with its largest population in the higher education age bracket is better positioned to serve the industry requirements not only within India but also abroad. Despite the given advantages NASSCOM’s report (National Association of Software & Services companies) points out that the percentage of employable graduates in India is only 25% (www.nasscom.in/). This suggests that given on an average 1 million graduates who get passed out every year from higher education institutions, the industry renders at least 7.5 lakh engineers as unemployable. This calls for serious policy and governance measures to aim at improving the education sector.
Further, the exodus of the Indian youth for higher professional education to foreign countries like Australia, Germany, USA etc., is staggering in size. The outflow of the Indian currency for higher education in foreign countries is enormous and hence it is imperative to find a solution to curb this problem. With the purpose of bringing radical reform into the Indian higher education sector, Foreign Education Providers (FEP) Bill is undertaken by the Government of India to allow foreign universities set up their educational campuses (colleges & universities) (DNA 2014). The introduction of global best practices in pedagogy, curricula, research, and training are few of the expectations from these foreign universities. Although the FEP Bill is pending in Parliament, the Ministry of Human Resource Development has however received a green signal from the Department of Industrial Policy and Promotion (DIPP) and the Department of Economic Affairs (DEA) to permit foreign universities to open campuses in India as non-profit companies under the Companies Act. This necessitates the domestic education players including deemed and autonomous institutions to improve their service offerings and set new benchmarks to stay ahead of the competition.

Moreover, accreditation is compulsory for all universities in India and is under the purview of a set of professional councils as recognized by the University Grants Commission (UGC). Until recent years, being recognized by the governing bodies was the only requirement for validating higher education institutions. But presently, Indian government is attempting to raise the standard of the institutions through periodic review by its accreditation agencies to ascertain if an institution is meeting its objectives and established standards. For this purpose, The National Accreditation Regulatory Authority for Higher Educational Institutions Bill, 2010 was passed in the Parliament that makes accreditation and rating of all higher education institutions mandatory in India. The salient feature of the bill is to establish National Accreditation Regulatory Authority for accrediting and rating all higher
education institutes in the country and to bring all the central and state universities, deemed universities, colleges and polytechnics under the purview of the Bill. The expected outcome of the bill is that the compulsory accreditation would establish uniform standards and norms across institutions and thereby enhance the quality of higher education in the country. Therefore, to raise and maintain the quality in Indian higher education, it is imperative to establish a systematic mechanism for these agencies by developing new frameworks and models that analyzes the internal environment of an institution.

Further, transparency and quality in higher education markets is increasingly becoming a hot topic of discussion (Choudaha 2013). Generally, applicants are hard-put to know what the internal environment of an institution would offer and how much they can expect to learn at a college they have never seen. They do not make enlightened choices given the time, cost and/or other constraints to explore all the promising options available to them. A number of studies in both the US and UK have pursued the question on what types of information regarding the quality of the institution do students use to choose the program or university in which they enroll and do existing measures permit students to successfully differentiate between institutions on the quality of learning (O’Reilly 2014; Dill & Soo 2004). In the same vein, Choudaha (2013) has also stressed that in order to reform Indian higher education, it is necessary to improve the transparency of information about institutional performance for students. One specific recommendation in his study was to mandate high standard of institutional performance data disclosures by institutions. Hence, it is necessary for institutions to develop performance-driven models that provide easy access to comparable information on each college or university’s institutional performance based on a set of factors. This would help the students and other stakeholders involved to select the institutions that would satisfy their
requirements and in the process create a state of enhanced competition among institutions.

Thus, it is within the context of a globally changing set of demands that educators and researchers have noted the necessity and advantages of transforming Indian higher education institutions into learning organizations that call upon continuous learning for improved institutional performance. The concept of the learning organization has been widely employed across various business sectors and these studies have mostly used the Dimensions of Learning Organizations (DLOQ) as their measurement tool (Marsick 2013). However, little research on learning organization culture with respect to HEIs has been identified in the literature and particularly, very few from India. In addition, it is seen that there is very little literature in understanding the antecedents of learning organization culture such as creative organizational climate and the mediating effects of knowledge creation practices in the organizational performance models. Further, it is necessary to determine the efficiency of universities based on the internal environment that exists in HEIs. This is because analyzing the efficiency of universities provides a standard measurement (‘benchmark’) of effective performance within universities (Prathap 2014). Thus, the above discussed factors necessitate the need for this research study that benefits not only the institutional stakeholders but also society at large.

1.3 OBJECTIVES OF THE STUDY

This study attempts to develop a model to analyze the institutional performance based on organizational learning and knowledge management concepts in Higher Education Institutions (HEIs). Further, the study attempts to perform efficiency analysis for HEIs based on the variables in the model thus identified.
Thus, the objectives of this study are as follows:

1. To study the variables of organizational learning and knowledge management that improves the knowledge performance of HEIs.

2. To analyze the dimensions of learning organization culture and its antecedents.

3. To analyze the impact of creative organizational climate on the learning organization culture and knowledge performance relationship.

4. To analyze the impact of knowledge creation practices on the learning organization culture and knowledge performance relationship.

5. To determine the structural validity of the hypothesized knowledge performance model.

6. To determine the efficiency of the sample universities based on the variables in the hypothesized knowledge performance model.

1.4 RATIONALE AND RESEARCH QUESTIONS

Organization learning theory and Knowledge management (KM) are becoming more noticeable in public or non-profit institutions such as schools and colleges in the context of defining values, structures, and prescriptive strategies for organizational performance and competitive advantage. While learning and teaching is the integral business of education institutions, yet, they lack the attributes needed for organizational learning (Bauman 2005). Further, creativity and innovation in higher education sector
requires structural reforms with new management practices and thus necessitates new forms of organizations (MacLaren 2012). Thus, understanding the concepts of organizational learning and knowledge management needs methodologically mapped and studied, and new models be developed for higher education institutions to improve their culture for learning, innovation, and performance.

There are several studies pertaining to LOC in higher education sector (Jeffery 2008; Bui & Baruch 2012). However, in the context of Indian higher education only limited studies deal with understanding on how learning organization characteristics influences institutional performance (Patnaik et al 2013). On the other hand, assessment of institutional performance has gained significant attention over time as these evaluations help administrators, policy makers, funding agencies, employers, staffs, parents, and students in making various decisions. Further, it is also essential to focus on knowledge management in higher education institutions since it guarantees that the required knowledge is available to people to take certain actions. In recent times, this is one of the most promising and equally challenging area, which when applied correctly will raise the competitiveness of higher education in this specific market (Sedziuviene & Vveinhardt 2009). It is evident from previous qualitative studies that organizational learning is complementary to knowledge management (King 2009) and hence this study attempts to develop a model based on quantitative analysis. Further, this study compares the efficiency of the sample universities based on the variables in the hypothesized knowledge performance model.
Therefore, this study seeks to answer the following research questions:

1. Are there any differences in the study outcomes based on the demographic variables?

2. Is there any correlation between the variables of organizational learning and knowledge management?

3. Is creative organizational climate an antecedent of learning organization culture?

4. What is the impact of learning organization culture on knowledge performance?

5. What is the impact of creative organizational climate on learning organization culture?

6. What is the impact of learning organization culture on knowledge creation practices?

7. What is the impact of knowledge creation practices on knowledge performance?

8. Does creative organizational climate moderate the learning organization culture and knowledge performance relationship?

9. Do knowledge creation practices mediate the learning organization culture and knowledge performance relationship?

10. How to compare the efficiency of the sample universities based on the variables of the hypothesized knowledge performance model?
1.5 HYPOTHESES

According to Farrugia et al (2010) the primary research question should be driven by the hypothesis rather than data. In order to address the research questions and to analyze the data empirically, this study attempts to propose a hypothesized model with seven related hypotheses. Figure 1.1 shows the hypothesized model and the theoretical background of the hypotheses is discussed subsequently.

Figure 1.1 Hypothesized Knowledge Performance Model of this Study
Learning Organization Culture and Knowledge Performance

Senge (1990a) found that learning organization culture is positively associated with knowledge performance. Marsick & Watkins (2003, 1999) and Watkins & Marsick (1997, 1996, 1993) developed a model and argued that there exists a positive relationship between learning organization culture and knowledge performance. Yang et al (2004) have also measured and validated this model. Further, studies have adapted Watkins & Marsick’s model to analyze the HEIs performance (Kumar & Idris 2006; Kezar 2006; Harman 2005). For example, Kumar & Idris (2006) have argued that private institutions of higher learning can enhance institution’s knowledge performance by investing in their organizational learning culture. In their perceptual study involving private higher learning institutions in Malaysia, three dimensions such as leadership for learning, team learning, and embedded systems are found to be positively correlated to knowledge performance. Therefore, the first hypothesis is:

H1: There exists a positive relationship between learning organization culture and knowledge performance in higher education institutions.

Learning Organization Culture and Creative Organizational Climate

This study examines the relationship between learning organization culture and creative organizational climate with respect to higher education institutions. The creative organizational climate is the suitable working culture that enhances the organizational performance through innovation and creativity. It is the practices and processes in an organization that turns opportunities into practical use (Tidd et al 1997). The role of creative organizational climate on learning organization dimensions were examined in previous studies and the results reveal that creative organizational climate is positively related to learning organizations (Samad 2010, 2004). Further, the relationship between creative organizational climate and learning organization
culture towards innovation has also been analyzed in few studies (Škerlavaj et al 2010; Tran 2008; Ismail 2005). Therefore the second hypothesis is:

**H2:** There exists a positive relationship between creative organizational climate and learning organization culture in higher education institutions.

Although previous studies treat organizational learning culture as an exogenous variable and do not attempt to identify its antecedents (Kopelman et al 1990), it is observed in few studies that more research should examine the antecedents of learning organizations (Ostroff et al 2003). Further, Moghadam et al (2012) have argued that creative climate facilitates organizational learning culture. Hence, the hypothesis 2(a) is:

**H2(a):** Creative organizational climate is an antecedent of learning organization culture in higher education institutions.

**Learning Organization Culture and Knowledge Creation Practices**

Argote (2013) argued the link between organizational learning and knowledge management practices is not new but supported by decades of past research. Song (2008) studied the relationship between learning organization culture and knowledge management practices. It was evident from the study that learning organization culture has a strong and positive impact on knowledge creation practices in organizations. Similarly, the study on team performance by Yoon et al (2010) showed that there exists a positive relationship between learning organization culture and knowledge creation practices. They argued that there is a direct positive impact of learning organization culture on the team’s collaborative knowledge creation practices. Thus, the third hypothesis is:

**H3:** There exists a positive relationship between learning organization culture and knowledge creation practices in higher education institutions.
**Knowledge Creation Practices and Knowledge Performance**

The relationship between knowledge creation practices and performance was well established in the work of Nonaka & Takeuchi (1995). Gholami et al (2013) have studied the influence of KM practices on organizational performance in small and medium enterprises (SME). They found that knowledge creation together with knowledge acquisition, sharing, storage, and implementation has a significant positive effect on organizational performance. Further, the three dimensions of knowledge creation practices such as human capital, employee motivation, and information combination and exchange are found positively related to the organizational performance (Collins et al 2001). Thus, the fourth hypothesis is:

**H4:** There exists a positive relationship between knowledge creation practices and knowledge performance in higher education institutions.

**Mediating effect of knowledge creation practices on the learning organization culture and knowledge performance relationship**

Previous studies have established the link between learning organization and knowledge management practices in organizations (Song et al 2013a; Alipour et al 2011; Yoon et al 2010). Song & Kolb (2013) examined the mediating effect of knowledge creation on the relationship between learning organization culture and performance in Korean firms. The results of their study suggests that the input-related concept of learning culture is directly related to firm performance through the mediating effects of process-related concept of knowledge creation. Further, it is evident from the study by Alipour et al (2011) that knowledge creation and transfer improves the performance in learning organizations. Yoon et al (2010)
examined the structural determinants of team performance through the mutual influences of learning culture, creativity, and knowledge creation practices. They found that knowledge creation practices mediate the learning organization culture and team performance relationship. Hence, this study anticipates that knowledge creation practices would mediate the relationship between learning organization culture and knowledge performance in higher education institutions. Thus, the fifth hypothesis is:

**H5:** The relationship between learning organization culture and knowledge performance is mediated by the knowledge creation practices in the higher education institutions.

**Moderating effects of creative organizational climate on learning organization culture and knowledge performance relationship**

Previous studies have analyzed the relationship between creative organizational climate, organizational learning culture, and organizational performance independently (Moghimi & Subramaniam 2013; Moghadam 2012; Salim & Sulaiman 2011; Bates & Khasawneh 2005; Ismail 2005), but have not studied all the three variables together. Kontogiorghes et al (2005) argued that learning organization dimensions strongly predicts change adaptation and innovation that results in bottom-line organizational performance. This implicates that creative organizational climate has a considerable role in the learning organization culture and knowledge performance relationship. Thus, the sixth hypothesis is:

**H6:** The relationship between learning organization culture and knowledge performance is moderated by the creative organizational climate in the higher education institutions.
Relationship between Organizational Learning and Knowledge Management

It is evident from previous studies that there are various ways to conceptualize the relationship between knowledge management and organizational learning (Dermol 2013; Argote 2013; Pun & Nathai-Balkissoon 2011; King 2009; Easterby-Smith & Lyles 2003). King (2009) argued that organizational learning (OL) is complementary to knowledge management (KM). Pun & Nathai-Balkissoon (2011) have discussed the concepts and models that integrate knowledge management (KM) and organizational learning (OL) spanning the period from 1996 to 2009. They argued that conceptual knowledge transfer, knowledge acquisition and creation, and learning models underlie much of the work being done in the field. Further, it was evident that systems approaches, culture, and the learning organization (LO) and chaordic organization/enterprise (CO/CE) concepts are among the most popularly cited factors for the development of a holistic model. Therefore, the seventh hypothesis is:

**H7**: There is correlation between the variables of organizational learning and knowledge management.

Thus based on these seven hypotheses, this study attempts to develop a knowledge performance model to analyze the institutional performance of higher education institutions.
Summary of the relationships in the hypothesized model

Based on the above discussions Table 1.1 summarizes the relationships between the variables as identified in the literature review and their nature of association.

Table 1.1 Summary of the relationships in the hypothesized model

<table>
<thead>
<tr>
<th>Relationships studied in this paper</th>
<th>Literature basis</th>
<th>Nature of relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moderating effect of Creative Organizational Climate on Learning Organization Culture and Knowledge Performance relationship</td>
<td>This study</td>
<td>Unknown</td>
</tr>
</tbody>
</table>
1.6 SIGNIFICANCE OF THE STUDY

Performance oriented studies in higher education have gained significant prominence in recent years. The questions about the factors that drive organizational adoption and the use of performance data to manage universities and colleges for internal management are of central importance (Rabovsky 2013). Understanding and managing the factors that impact institutional performance through quantitative analysis can help promote better learning outcomes at all levels of the organization such as individual, group, and organizational. Further, this study intends to identify management strategies by employing the theories and concepts in the area of organizational learning and knowledge management. Therefore, the significance of the study is enumerated as follows:

First, a systematic review of literature suggests that there are only very few studies that attempt to understand learning organization culture and its influence on knowledge performance in Indian higher education institutions. Different from previous studies that examine the learning organization concept in Indian medium-to-large business contexts (Awasthy & Gupta 2012, 2011; Bhatnagar 2006), this study focuses upon Indian higher education institutions. It is believed that this will be the first study to discuss the relationships between learning organization culture, creative organizational climate, and knowledge creation practices using Watkins and Marsick’s learning organization model. The data for this study is from a unique survey on the perceptions of students and staff in private and public universities. This novel idea ensures the application of theories and concepts in the area of organizational learning and knowledge management to improve performance of higher education institutions.
Second, Indian government and the governing bodies for higher education institutions are now paying increased attention to the learning organization concept which emphasis on building institutions with better performance through learning process and research initiatives (www.ugc.ac.in/). However, extensive literature review has identified very few studies on learning organization concepts with respect to Indian higher education sector.

Third, this study employs the instrument that has not been previously tested in HEIs, particularly in India. The instrument in this study uses multiple frameworks such as the Dimensions of Learning Organization Questionnaire (DLOQ) (Marsick & Watkins 2003, 1999), Ekvall’s 10 dimensions of creative climate (Ekvall 1996) and SECI model (Nonaka & Takeuchi 1995). Further, previous studies have analyzed the variables in this study independently but the effect of all three variables together and their impact on the institution’s knowledge performance has not been studied.

Finally, this study has both theoretical and practical implications for accreditation agencies, organization development (OD), and HRD research and practices. For example, ranking and rating of institutions has produced much debate and the expanding diversity in rating methodologies indicates lack of consensus in this field. Further, existing measures for evaluating and rating the efficiency of HEIs have not emphasized upon the learning organization concept and the knowledge creation practices. This has become a necessity in this dynamic and competitive environment that present HEIs operate and this study attempts to fill this gap. It is expected that this study would help the students, funding agencies and other stakeholders in higher education to evaluate and select the institutions for course enrolment, funding, recruitment or job opportunities. Thus, based on the above discussions this study intends to contribute to both theory and practice in the
fields of organizational learning, knowledge management, and performance management in the context of higher education sector.

1.7 LIMITATIONS AND DELIMITATIONS OF THE STUDY

The main limitation of this study is the primary constraint pertaining to the perceptual measures of the instrument utilized in the study to understand the satisfaction level of the respondents about their respective institutions. The delimitation of this study is that only public and deemed universities participated in the study since the study methodology did not include other HEIs. The other institutions such as affiliated public/private colleges, institutions of national importance, and other private institutions did not participate in the study. Hence, this limits the extent to which the findings of this study be generalized to other institutions of higher education.

1.8 ASSUMPTIONS IN THE STUDY

This study assumes that the respondents are free from social desirability bias. Generally, the issue of social desirability bias impacts the results of the research survey. Chung & Monroe (2003) indicated that, “social desirability bias is the tendency of individuals to underestimate (overestimate) the likelihood they would perform an undesirable (desirable) action” (p. 291).

The research instrument of this study asks about the presence or absence of certain institutional characteristics that best describes the study variables. This study assumes that the participants in this study understood that there is no right or wrong answer to the questions as mentioned in the self-report questionnaire.
1.9 DEFINITION OF TERMS

**Climate**: The climate is the recurring patterns of behaviour, attitudes, and feelings that characterize life in a higher education institution.

**Creative Organizational Climate**: The creative organizational climate in HEIs is the contextual attributes and mechanisms within an institution that foster creativity and innovation.

**Creativity**: Creativity is a new structure of the mind, a new configuration or a new formulation of meaning (Ekvall 1997). The terms creativity and innovation are interchangeably used in this study.

**Data Envelopment Analysis**: Data Envelopment Analysis (DEA), also known as frontier analysis, is a performance measurement technique for evaluating the relative efficiency of decision-making units (DMU’s) in organizations.

**Efficiency**: Efficiency is the optimal use of inputs with which a higher education institution produces its outputs. It relates to the efficient use of all the inputs in producing the outputs, including both tangible and intangible resources.

**Higher Education**: Higher Education is defined as the education which is obtained after completing 12 years of schooling or equivalent and is of the duration of at least nine months (full time) or after completing 10 years of schooling and is of the duration of at least three years. The education may be of the nature of General, Vocational, Professional or Technical education (www.aishe.nic.in/).
Higher Education Institutions (HEIs): Higher Education Institutions (HEIs) is defined in this study, as all institutions where higher education is imparted in a classroom in direct contact with the teachers and also makes use of other infrastructure facilities like laboratories, library, etc., to enhance the teaching-learning process.

Knowledge Creation Practices: It is the general term for knowledge management practices in HEIs that encompass knowledge creation, acquisition, sharing, storage, and implementation.

Knowledge Management: Knowledge Management (KM) is the process of capturing, developing, sharing, and effectively using organizational knowledge.

Knowledge Outcomes: It comprises the perceptions of an individual with respect to the outcomes as a result of teaching and learning, and knowledge creation practices in HEIs.

Knowledge Performance: Knowledge performance is one of the dimensions in the learning organization model as proposed by Marsick & Watkins (2003). It measures the organizational/institutional performance with respect to its knowledge outcomes.

Learning Organization: A learning organization is an organization which is capable of creating, acquiring and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights.

Learning Organization Culture: Learning organization culture are the practices within HEIs that help an institution to achieve the status of a learning organization. It is also used interchangeably with organizational
learning culture, learning organization practices and learning organization characteristics.

**Non-Teaching Staff:** Non-teaching staff are staff other than teaching staff engaged in Administrative, Secretarial, Laboratory, Library work etc. of the University/Institution/College in different level Groups i.e. Group A, Group B, Group C and Group D as defined by Department of Personnel & Training.

**Organizational Knowledge:** Organizational knowledge is the collection of knowledge derived from the stakeholders of HEIs. This knowledge is “codified” and “owned” by the institutions even when the stakeholders are no longer associated with the institution.

**Organizational Learning:** Organizational learning is an area of study within organizational theory that studies models and theories about the way an organization learns and adapts.

**Organizational Performance:** Performance of a HEI is determined by the action or process of carrying out or accomplishing an action, task, or function as set out by its mission, vision, and objectives.

**Research Outcomes:** It comprises the perceptions of an individual with respect to the outcomes as a result of research activities and innovation.

**Stakeholders:** Stakeholders of a higher education institution are the members from its internal and external environment. The internal environment comprises students, teaching staff, non-teaching staff, and administrators. The external environment comprises employers, policy makers, and parents.

**Student:** Student means a student of the institution and includes any person who has enrolled himself/herself for pursuing any programme of study conducted by the institution.
**Teaching Staff:** Teacher is defined as a faculty/staff assigned the professional activities of instructing pupils, providing knowledge and giving guidance in the subject area of studies in self-contained classes or courses or in classroom situations. Generally, the designation of teaching staff are Vice-Chancellor, Director, Pro-Vice-Chancellor, Principal, Professor & Equivalent, Associate Professor, Additional Professor, Reader, Lecturer (Selection Grade), Assistant Professor, Lecturer (Senior Scale), Lecturer, Tutor, Demonstrator, Part-Time Teacher, Ad hoc Teacher, Temporary Teacher, Contract Teacher, Visiting Teacher.

**University:** Under the University Grants Commission (UGC) Act, 1956, “University” means a University established or incorporated by or under a Central Act, Provincial Act or a State Act, and includes any such institution as may, in consultation with the University concerned, be recognized by the Commission in accordance with the regulations made in this behalf under this Act.

1.10 **AN OUTLINE OF CHAPTERS**

A brief outline of the chapters in this study is given below.

**Chapter 1. Introduction:** This chapter deals with a brief introduction on the purpose, objectives, hypotheses, and significance of this study. Further, it discusses the assumptions and key terminologies used in this study.

**Chapter 2. Literature Review:** This chapter provides a brief overview on the Indian higher education sector and its challenges. It also deals with a systematic review of literature on the variables in this study. Finally, the chapter concludes with the framework of this study based on the literature review.
Chapter 3. Methodology: This chapter provides a description of the research methodology that aims to meet the objectives and research questions of this study. It focuses upon the research design, instrument details, population, sample selection, reliability and validity checks, pilot study, and an overview on the data analysis tools and techniques used in the study.

Chapter 4. Analysis and Interpretation: This chapter deals with the results of the data analysis and its interpretation. The tools for the data analysis include descriptive statistics, multivariate analysis, structural equation modeling, and data envelopment analysis.

Chapter 5. Summary of Findings and Discussion: This chapter discusses the summary of findings. It provides a valuable insight to determine if the findings satisfy the purpose and the objectives of this study.

Chapter 6. Conclusions: This chapter concludes the study with its implications and recommendations for further research.