Impact of Attitude on Job Performance of Teachers in Higher Educational Institutions

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By

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February, 2020

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ABSTRACT

Research has focused to find impact of attitude on job performance of teacher. It also aims to explore the impact of demographic factors like gender, age, qualifications and experience on job performance of teachers. Sample size consists of 400 teachers working in higher educational institution (Self-financed and government funded) in NCR. Literature review and pilot study were done to develop a deep insight to problem. The data was studied using cross tabulation and frequency distribution using SPSS (Ver.21). In addition to the central frequency distribution calculations additional tools like t- test, ANOVA, correlations, regression CFA were carried out using SPSS (Ver.21). AMOS (Ver.22) was also used for SEM. The construct and discriminant validity of the SEM was also determined using calculations in Excel and through Gaskins`s validity tool. The result indicates that there is a significant impact of attitude on job performance, however there is no significant difference in impact of attitude on job performance of teachers in government funded and self-financed higher education institutions. There is no significant difference of impact of gender on job Performance but there is a significant correlation between age, qualifications and experience on job performance of teachers. The inputs from research will present an opportunity to reframe methodologies at institutional, individual level to develop and strengthen the teaching and learning environment through engineering attitude. It will also help policy makers and administration to understand how a teacher actually related his personal and professional characteristics, beliefs to his duties and classroom practices.

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LIST OF ABBREVIATIONS

Sl. No	Acronym	Full Form
1	Att.	Attitude
2	Perf.	Performance
3	Fig.	Figure
4	AA	Affective Attitude
5	BA	Behavioural Attitude
6	CA	Cognitive Attitude
7	JP	Job Performance
8	CCEA	Co- Curricular, Extension and Professional Development Activities
9	SCP	Student`s Performance and Student Centered Practices
10	RAC	Research and Academic Contributions
11	PPE	Punctuality and professional ethics
12	TLPE	Teaching, Learning Process and Evaluation
13	CFA	Confirmatory Factor Analysis
14	ANOVA	Analysis of Variance
15	MSV	Maximum Shared Variance
16	AVE	Average Variance Extracted
17	CR	Critical Ratio
18	ASV	Average Shared Variance
19	SEM	Structural Equation Modeling
20	PCA	Principal Component Analysis
21	NCT	National Capital Territory
22	NCR	National Capital Region
23	POI	Profile of Institution
24	NOI	Nature of Institution
25	HEI	Higher Educational Institution
26	AISHE	All India Survey on Higher Education
27	HRD	Human Resource Development
28	UGC	University Grant Commission

29	API	Academic Performance Indicator
30	PBAS	Performance Based Appraisal system
31	SPSS	Statistical Package for the Social Sciences
32	AMOS	Analysis of Moment Structures

CHAPTER – 1

INTRODUCTION

CHAPTER – 1

INTODUCTION

1.1 Introduction

The growth and development of a nation and its citizens largely depend upon their intellectual, educational growth and the way they are developed and guided. Education especially higher education is the most powerful tool that shapes intellectual growth and helps individuals, society to determine vision, mission and structure and make them aware of self. Society is witnessing both formal and informal system of education in which teachers are playing a pivotal role. The psychological qualities of a teacher (including attitude) influences the attribute, characteristics and delivery and are considered to be the most important factors affecting job performance. A good teacher having a negative attitude cannot stimulate teaching and learning process and hence cannot reciprocate knowledge and other informational inputs, and therefore impacts the job performance negatively. Hence, it is important to carry out systematic investigation to examine inter – relationship between attitude and job performance, that how the attitude (of a teacher) is affecting his job performance in higher educational institutions.

The chapter profound introduction base of the research work and attempts to answer "why" related to the selected topic. It presents an overview of the problems and its background and has highlighted the need of study (pertaining to the selected topic). The chapter attempts to provide the probable reasons behind the selection of the stated topic that has motivated the researcher to carry out the research. The applicability/ boundary of the research work have also been mentioned in the chapter along with its relative importance that is how the research is important to different stakeholders. Later in the chapter motivation behind the study undertaken and thesis outline are mentioned. Most recently National Education Policy has also given thrust to develop and inculcate innovative, adaptive critical thinking and problem solving approach to stimulate teaching and learning environment especially in higher educational institutions. The policy has also stressed on use of technology, removing language barriers, transparent codes etc. to strengthen education especially higher education in India. The policy has provided a platform to teachers to act responsibly and has paved way to equip teachers with latest knowledge casting a positive impact on their attitude.

1.1.1 Problem and Its Background

Education is the backbone of development of any nation. The growth, development, flexibility and adaptation of a nation and its citizens largely depend upon the growth of education in the country. Education facilitates and compliment changes and brings a positive impact in behavior, attitude, feelings, action and thinking. It makes us able to understand and imbibe the internal and external happenings and occurrences.

A teacher with positive attitude always compliments his teaching with creativity, innovation and enthusiasm and guides the students towards attainment of the prime goal in most productive way. A good teacher with a negative or sublime attitude cannot deliver as per the need and expectations and hence cannot play a pivotal role in dissemination of education and information. The importance of a teacher cannot be replaced or equated with other teaching material or aid rather a Guru play an important role in shaping the entire race, humanity and civilization resulting in creation of a happy, satisfied and intellectual society. Different studies have proved that the intensity of influence of a teacher on students, society and civilization is more as compared to any other tools and techniques.

The characteristics and qualities of a teacher are actually unlimited. These qualities have to be conditioned and upgraded according the need and expectations of stakeholders and environment. Out of these several qualities attitude acquires an important place. A good teacher having sound knowledge base, good vision and etiquette would be failing in his duties if he doesn't carry a good attitude towards stakeholders and profession. A teacher having a negative attitude cannot respect either his profession or the expectations of stakeholders and due to the same his delivery and articulation both are affected.

More stress should be given to interpersonal relation between students and other stakeholders in order to create a favorable environment to teach and learn. Teacher should carry a clear mindset, goals and objectives complemented with interpersonal skills, good personality to create an aura to teach, however all these things would go in vein, if the attitude of the teacher is not flowing in proper direction and this will have a retrogressive effect on job performance.

Most recently government has also pointed out the failing standards of higher education and research in India and has treated this as one of the major cause of concern. Along with all other responsible reasons be it the infrastructure, delivery, quality of student and teachers, quality of research etc. one reason could be the unfavorable attitude of teachers

Therefore, it is very important to examine the relationship between attitude and job performance. To present a clear picture of the interrelationship between attitude and job performance the interrelationship between different components of attitude with job performance is must.

A favourable and positive attitude not only helps the teacher in acquiring proficiency and job satisfaction rather it would also complement the teaching, learning and delivery environment of the institution. Therefore it is important to examine the inter – relationship between attitude and job performance of teachers in higher educational institutions (in both government funded and self-financed higher educational institutions)

1.1.2 Need of the Study

It is a well-established universal fact that the role of teacher is pivotal in making teaching interesting, stimulating and effective. Teachers are believed to be the facilitators and creators of a learning society that leads to a self-sustaining and sustainable future. The role of a teacher in shaping the career of individuals, society and economy cannot be undermined and therefore the teachers acquire the topmost position in the educational hierarchy. It has been witnessed that number of graduating students have increased but they don't carry required skills to be employable. Increasing employability and falling standards of higher education in India in negatively impacting the social and economic infrastructure of the country. Innovative, adaptive critical thinking and problem solving approach are lacking in todays educated youths, many reasons are responsible for this including how they are being taught, developed, controlled and conditioned. Psychological attributes of teachers especially the nature of attitude is an important determinant as well as solution to this problem. The need of the hour is requirement of good and quality teachers who meet the requirements at social, economic, national and international levels and should satisfy the thrust of stakeholders. A good and knowledgeable teacher would be failing in his duties of teaching, delivery, guiding and motivating the students, if he carries a negative attitude towards teaching. In addition to teaching and learning, attitude not only compliments the decision making and selection rather it equally affects his actions, behaviour and attribute towards his profession and other related things.

Therefore it is really important to study the interrelationship between attitude and job performance as this would formulate a basis for synchronization, decision making and policy formulation. Also to compete with the teaching standards of rest of the world our intellectual

capitals have to be psychological positive and should carry a good and favourable attitude toward teaching and their job.

1.2 Concept of Attitude

Attitude acquires an important place in human as well as social psychology. In general it could be described as an evaluative part of human by virtue of which we all evaluate objects, events, persons, things and phenomenon around us. Attitude helps us in predicting and describing the behavior of a person and it also helps in explaining the longevity and the direction of consistency of an individual`s behavior. The exact position of attitude in human psychology is relatively tough to determine but somewhere it lies between one`s belief and his respective behavior. It can also be treated as relative mental alertness, readiness or promptness toward specific objects, events, situations or things. Attitude can also be treated a relative, layered and adaptive pattern of beliefs that cause a person to respond and behave in a specific way with respect to any stimulus. Attitude determined individuals feeling about objected and events, it could also be treated as a psychological constructed triggered by experiences and other related situational factors. It can also be treated as factor that predicts how individuals will act and behave when they are open to object event, situation or an experience. Attitude to a larger extent is the determining factor behind consistency and coherence of individual`s response and behavior and determine the positivity, negativity or neutrality of behavior. Attitude could also be understood as a factor determining readiness, preparedness, responsiveness and evaluativeness of human mind with respect to a stimulus or stimuli. Since past the concept of attitude has travelled a lot and has evolved from determining factor of body posture to evaluative part of individuals

Different scientists and social psychologists have different views about the attitude, they are summarized below

- **Thurstone (1931)** has described attitude as the measure of intensity of positiveness or negativity associated with some psychological situation
- **Kretch and Crutchfield (1948)** has described attitude as an important factor behind cognitive process, motivation and perpetual succession of individuals with respect to specified situations. He also described it as a learned ability of individuals that differs from person to person.

- **Rokeach (1960)** has explained attitude as network of beliefs associated with an object or thing
- **Fishbein (1967)** has explained attitude as positive, negative or neutral nature of individuals.
- **Armstrong et.al. (1981)** have highlighted the evaluative nature of attitude and explained attitude as the responsible factor behind evaluative nature of individuals.
- **Campbell (1981)** has explained attitude as the factor determining consistency of individual`s response.
- **Chowdhury & Salam (2015**) has described attitude as learned predisposition to respond towards cognitive aspects, conative and affective aspects.

1.2.1 Characteristics/ Nature of Attitude

Though it is really difficult to classify exactly the nature of attitude, however some of the important characteristics of attitude are as following

- **Attitude is learned predisposition** – As a psychological attribute, attitude are always learnt and it follows the normal process of learning, it could not be related innate nature. Attitude is expressed as response of an individual towards stimulus those are learned. Stimulus could be an object, event, individual, situation or things. Attitude are always influenced and shaped by divergence and different learning and experiences and are very important in determining/ indicating consistencies in responses. **Freeman (1944)** expressed attitude as individual mode of response with respect to and specified object or thing, he further explained that the process of learning attitude is similar to that of learning behaviour. **Guilford (1954)** explained that the attitude to a larger extent determines personality traits and they carry a dynamic nature but the intensity and direction of attitude affects personality traits.
- **Society plays an important role in shaping attitude** – Society shapes attitude both in formal and informal ways. Attitude is a resultant of summed up experiences that a person acquired during his lifetime. Societal events and happening plays an important role in shaping the experience of a person and hence the attitude is eventually shaped. Individuals are having several and vivid past experiences and these past experiences (that are drawn from society) plays an important role in shaping psychological attributes of an

individual. **Lasley (1980)** in his research work explained that psychological attributes, beliefs and values are formed within an individual when he is exposed to new ideas, thoughts and happenings in society. Individual as a discrete unit or as a part of group, specific culture draws a lot of experiences in a social set up and as a result of that he subsequently develop a specific pattern to respond and that is how attitude evolved.

- **Group norms as an important determinant of attitude** – Individual as a part of group develops specific way of thinking and analysis. The group norms, rules and regulations play an important role in determining group cohesiveness and in turn the degree and intensity of group cohesiveness influences the way an individual receives and perceives the stimuli and information. The group phenomenon and norms affects the kinetic and intellectual movement of an individual and conditions his efficiency and intellectual ability and psychological attributes to a larger extent. The effect of group norms are well explained by **(Sansfacon & Amiot, 2014),** in his work he explained that when an individual having a separate and different set of norms is made part of a group having different and conflicting set of norms then the individual adopts group specific norms in order to be a part of the group. The findings of the study clearly show that group norms could influence the psychological attributes of an individual including attitude.
- **Attitude is hierarchical and carries a collateral nature**–Attitude is organized in nature and always represents a unified mental state of the person either in conscious or in unconscious state. Attitude could be treated as an outcome or response with respect to a single or multiple objects as a result of interrelation between different mental states. The behaviour of a person is as a result of combination and interaction a lot of previous attitudes. **Krathwohl, Bloom, & Masia (1965)** explained in his work that the tendency to be judgmental either positive or negative is largely influenced and affected by the cognitive structure and state of the mind. **Ruiz & Baer (1997)** in his work explained that the attitude is as a result of conscious efforts or conscious goals or it is governed by principles of life. Attitude is composed of different sets of beliefs, values, experiences and learning that are organized and arranged in a definite set of hierarchy. The intensity and direction of attitude largely depends upon the strength of correlation between object, event cognitive structure of the mind and determines orientation of an individual, group or society towards the objectives/ goals and life.

- **Attitude as a determinant of behaviour** – Overt and covert behaviour of an individual are determined by attitude and the selective perception of the individual. Attitude influences behaviour and guides inner drive of a person towards attains of goals or pre-determined objectives. It created a bonding between inner drive and capabilities and motivated an individual to show some actions. As per the research carried out by **Case (1985),** attitude is the prime reason behind selective response, it uses the standard process of selection to control behaviour and behaviour related responses. **Driscoll (1994)** has endorsed the views of Case, he highlighted that the attitude casts its effect of behaviour and as a result of this some responses are blocked and some are facilitated in context to the direction of objective completion.
- **Attitude in intangible** – The physical existence of attitude is not there it is always viewed as a psychological response but the impact of attitude is manifested in the form of an action or behaviour.

1.2.2 Components of Attitude

Attitude is composed of three components and these components are correlated to each other and their combined outcome is the overall attitude. These three components are also refereed as the ABC model where A account for Affective component, B accounts for behavioural component and C accounts for cognitive component. Any particular behaviour of a person is based either as an effect or dominance of 1 component or combination of components.

The three components of attitude may be expressed as below

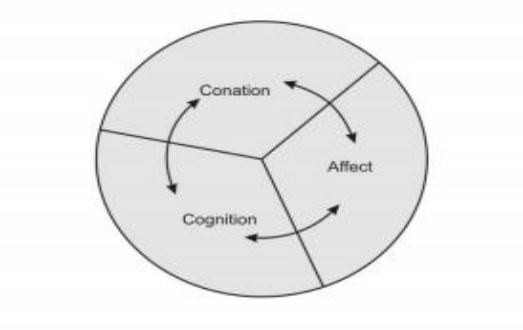

Fig –1.2.1- Tri-component Attitude Model

(Source: Source: Schifman, L., & Kanuk, L., (2007), Consumer Behavior, 9th Edition, Pearson Publications)

- **Cognitive Component**- It indicated belief of a person, his thoughts and attributes associated with an event, place, object or thing. It can be expressed in terms of statement of belief and could be effectively be related to the general cognition and knowledge of a person. It is also known as the informational component of attitude
- **Affective Component** –this component of attitude is based upon feeling of emotions of a person and effectively be expressed in the form of statement highlighting feeling. It is also referred as the emotional component.
- **Behavioral Component** - This component is the covert component. It highlights the intension and tendencies to behave. It is prevalent both in short and long run

Table- 1.1.1 Article on components of attitude

Sl No	Tag	Title	Author, Year	Gist	Linkage to the Study
1	Journal Article	3D model of attitude, *International Journal of Advanced Research in Management and Social Sciences*, 3(3), 1-12	Jain, V., (2014)	Attitude is a combination of 3 components namely cognitive, behavioural and affective component highlighting feelings, response and belief, these components are combined together to attitude	Overall Attitude if a combination of cognitive, behavioural and effective component
2	Journal Article	Empirical Validation of Affect, Behavior, and Cognition a Distinct Components of Attitude, *Journal of Personality and Social Psychology*, 47(6), 1191-1205	Breckler, S., J.,(1984)	The tripartite model of attitude was validated and inter-component correlation was observed between cognitive, behavioural and affective components of attitude	Overall Attitude if a combination of cognitive, behavioural and effective component
3	Journal Article	Measuring Leisure Attitude, *Journal of Leisure Research*, 14(2), 155- 167	Ragheb, M., G. & Beard, J., G., (1982)	The indicators of leisure attitudes and reaction behaviour are a combination of 3 components cognitive, behavioural and affective attitude	Overall Attitude if a combination of cognitive, behavioural and effective component
4	Journal Article	Validation of feeling, belief, and intention to act as three components of	Kothanda pani, V., (1971)	The three components of attitude signified belief of a person, his feeling and intention to act and in turn	Overall Attitude if a combination of cognitive, behavioural and

		attitude and their contribution to prediction of contraceptive behavior, *Journal of Personality and Social Psychology*, 9(3), 321-333		a combination of all these defines the behaviour of a person	effective component
5	Journal Article	The Relationship between the Affective, Behavioral, and Cognitive Components of Attitude, Journal of experimental social psychology, 5, 12-30	Ostrom, T., A., (1969)	The attitude results into response and in turn the evaluative response of a person is resultant of the combined impact of all the three components of attitude cognitive, behavioural and affective	Overall Attitude if a combination of cognitive, behavioural and effective component

1.2.3 Functions of Attitude

Attitude is the basic reason behind decisive responses and behaviour. It is the prime force behind channelization of inner drive as a result f which an individual initiates action for achievement of goals. It results into generation and facilitation of need gratification behaviour. Skinner (1961) has categorized the functions of attitude in 4 different parameters mentioned below

- Adaptive functions
- Cognitive functions
- Ego defense mechanism
- Functions related to need gratification

In same line Daniel Katz outlined 4 different set of functions of attitude

- **Adjustment function** – It always assists and help an individual or group to adapt and evolve according the surrounding environment and propound the base for future activities. Such functions of attitude are largely influenced by his perception and knowledge of what is right and what is considered to be wrong.
- **Ego defensive functions** – These functions of attitude helps an individual to justify their action as correct. These functions protect the individual against any psychological depression or harm.

- **Value Expression functions** – It assists the fulfillment of esteem needs of the person and helps them in gaining reputation and social acceptance. Such attitudes are often influenced by self-concept of the person and help in social establishment of the person.
- **Knowledge functions** – Such functions of attitude provides a sense of control to an individual's on his behaviour and action. Such functions help the individuals in establishing cause and effect relationships and assist the individual to understand the world, happenings around him.

1.2.4 Theories of Attitude Formation

Every individual are having distinct characteristics and his own opinion, beliefs, experiences, social environment and his interaction with internal and external environment determines and shapes that attitude of the person. The attitude formation is a gradual process, personal experiences, cognition and social learning shapes the attitude formation/ change. Some of the landmark concepts and theories highlighting the attitude formation are mentioned below.

- **The learning theory** - According to the learning approach attitude is learned like other habits. The attitude of a person is formed as a result of social learning. The learning approach emphasizes on the concepts of initiation, association and reinforcement. The theory also attempts to highlight the role of persuasive communication, change in opinions, presence or absence of the linked reward to attitude formation **(Hovland, Janis & Kelley, 1953).**
- **Motivational theories** – These theories of attitude formation is based on gains or incentives received by a person. According to these theories a person tends to adopt the attitude corresponding to which he enjoys maximum gains or incentives. The theory also highlights that a coherence of interpersonal relationships must exists between peoples for balance of emotions and social relationships and cognitive harmony is the base of attitude formation **(Heider, 1958).**
- **Cognitive affect and Cognitive Dissonance theory** - A person always tries to seek congruency in their respective belief and feeling towards an object, event or thing and make their cognition constant, however the resulting attitude can be changed or modified by introducing a modification in either belief or feeling **(Rosenbarg, 1960).** A person always have a tendency to create a harmony between his own attitude and behaviour and

if in case a dissonance is their between his belief and behaviour then he feels a sense of discomfort and finally it leads to modification or change in belief, behaviour or attitude **(Festinger, 1957)**

- **Self-Perception theory** – The central idea of this theory is the self-perception of the person about his own behaviour. This theory highlights the formation of attitude on the basis of self-perception of behaviour and in the circumstances, social environment in which behaviour has surfaced. In fact the base of attitude formation is the people`s interpretation of self and behaviour **(Craft, 1950**). Complimenting to the self-perception theory **Borich (1977)** also has conducted a study on teachers and found that the teachers having positive attitude perceives their job and principles more positively and his teaching style is largely influenced by his beliefs and attitude.

1.2.5 Factors Affecting Teachers Attitude

Attitude determined individuals feeling about objected and events and can also be treated as factor that predicts how individuals will act and behave when they are open to object event, situation or an experience. Positive teachers` attitude is important for their optimal job performance to ensure inclusive education. . Some of the important factors that influence attitude of a teacher are

- Training and education
- Teaching position
- Personal experiences
- Personal and organizational accomplishment
- Environment of the institution
- Learning platforms
- Teaching learning process
- Freedom to adopt teaching pedagogy and innovations
- Salary Structure
- Recognitions and awards
- Nature of students
- Virtual learning
- Inclusion of technology in teaching
- Support service available

- Demographic characteristics like age, gender, income
- Challenges and problem faced

A positive and balanced mixture of above mention factors will enable and encourage a teacher to learn and increases his patience, preparedness, strength and open mindedness toward his profession. These factors manifest professionalism and the outcome is a balanced and professional behaviour and performance.

1.3 Motivation of the Study

Despite of being the 3rd largest country in the works in terms of education industry/ higher education sector the quality of output is still a question mark. The social and economic development of India has created well qualified pool of talent however on the other side the number of unemployed educated youth has increased and their talent and knowledge is substandard to a considerable extent.

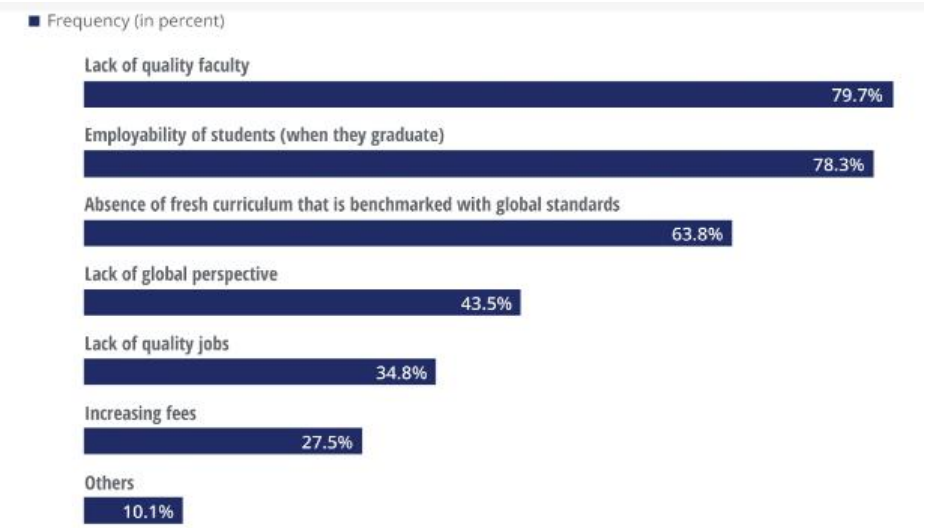

Fig-1.2.2– Problem faced by higher education in India

(Source: https://www2.deloitte.com/us/en/insights/focus/reimagining-higher-education/indian-higher-education-sector.html)

Many reasons are responsible for this including the infrastructure, reach, methodology adopted, educational policy, teachers etc. Teacher`s attitude is vital in changing social, cultural, technical, and economic environment of a nation. Teachers are seen and perceived as natural leaders and role models, their knowledge, teaching style and pedagogy impacts the behavior and values of

taught and hence effects their functioning in society. Student`s attitude and behavior, ethical awareness, scientific thinking and expression and their capabilities to live learn and earn largely depends on attitude and behavior of a teacher. A teacher with a positive attitude communicates knowledge in an innovative and structured way and motivates students to grasp and develop solution to a problem in a unique way. Students who are believed to be the seeds of social, cultural and economic development after gaining their degree fuels the development of a society and nation therefore, it is important to carry out systematic investigation to examine inter – relationship. Teachers overall contribution in development of system, students, society and nation is indispensible therefore they should always carry a balanced approach and should develop favourable attitude towards teaching. A lot of factor like personal experiences, environment and social factors, monetary benefits and recognition, support of management, relationship with fellow workers, work life, nature of students, freedom to act, training and developmental program etc. shapes attitude of a teacher, however these factors should be balanced and optimal. These factors impact opinion and attitude of a teacher and hence their job performance is impacted. In NCR a lot of qualified professionals are there however the quality of students and higher education a matter of concern. Therefore a detailed investigation was carried out to find out the impact of attitude on job performance of teachers.

1.4 Scope of the Study

Scope always defines the boundary and applicability of an individual, event, process or thing. Though the scope of the topic of research is limited but the findings could be generalized.

Following point highlight the scope of the research undertaken

- **Content wise scope** – The study is limited to assess the impact of Attitude (Cognitive, Behavioural and Affective) of Job performance of teachers in higher education Institutions.
- **Geographical Scope** - The scope of research is limited to the geographical area of NCT, Delhi. It include 5 zoned of Delhi (Central Zone, Eastern Zone, Western Zone, Southern Zone and Eastern Zone) and other areas like Ghaziabad, Gurugram, Sonipat, Noida and Greater Noida were also included.
- **Scope in terms of Nature of Institution** – The study has covered both self-financed and government funded higher educational institutions located in NCR. The institutions

studied includes University, degree colleges, University affiliated colleges, engineering institutions, management institutions, B.Ed & M. Ed colleges, Others

- **Gender wise scope** – Both male and female teachers working in self-financed and government funded higher educational institutions located in NCR.
- **Sample wise scope** – The research is based on the response collected from 400 respondents (including male and female teachers from Government aided and self – financed higher educational institutions) only.

1.5 Thesis Outline

- **Chapter – 1 -** The chapter profound introduction base of the research work and attempts to answer "why" related to the selected topic. It presents an overview of the problems and its background and has highlighted the need of study (pertaining to the selected topic). The chapter attempts to provide the probable reasons behind the selection of the stated topic that has motivated the researcher to carry out the research.
- **Chapter – 2 -** The chapter presents a compact view of the selected scholarly articles, literature and publication relevant to the topic of research. The chapter presents theoretical support framework to the research work.
- **Chapter – 3 -** This chapter explains the step wise detailed process used to carry out the process of research to realize the objectives considered. In the chapter a systematic and detailed method has been discussed related to the specific field of study considered.
- **Chapter – 4 -** In this chapter data analysis was carried out. Different statistical tool was applied to the collected data and then the result was interpreted to arrive at conclusions
- **Chapter – 5 -** The chapter summarized the findings of the research that was discussed in the previous chapter. The summarization is based on data analysis. Result, discussion and conclusion are the presentation of the findings of the research in compact form.
- **References –** It consists of the details of the sources from where reference has been taken or cited

1.6 Significance of the Study

To bind the importance of the present research in few words is really a tough task as it presents a vast scope before an individual, group or institution to reform. Restructuring and development in almost all dimensions of teaching and learning is required for sustainable development. Out of all relevant dimensions teachers are at top of the hierarchy especially in higher educational institution. Therefore the factors that could shape and impact the job performance of a teacher should be listed and counted. Psychological factors like attitude impacts the job performance more and hence the impact of attitude on job performance of teachers in higher educational institutions should be concentrated more.

Present era in education is rightly related to the structural and policy reforms wherein the quality of teaching and selection of right teachers acquire an important place, therefore it is at most important to determine the right teacher having right attitude to facilitate stimulating teaching and learning environment at the institution.

Ranging from development of concept to establishment of impact and inter- relationships between job performance and components of attitude, everything about this research is important and contextual to education sector and quality of teaching and learning. The research is important and significant form point of view of knowledge addition, policy formation and further research. This research will help scholar as well as others to understand the concepts and dimensions of attitude and job performance. Most importantly the management and board members of colleges, universities and higher education institutes may get important information and insight which they can use in strategic formulation to achieve satisfaction, structural, ethical and business excellence. The corporate may also get some important insight from this work in context to understanding the attitude and behaviour of employees at work place and how the respective attitude is affecting job performance. In addition to all these, it may also prove to be a useful document which may improve the relationship between management and teaching community thereby resulting in development of a better environment for self-management and self-synthesis.

The study is significant, as it gives a fair idea about the intensity of relationship between attitude of male and female teaching staff working in government funded and self-financed institution with their respective job performance. The knowledge about the stated inter- relationship will help management, stakeholders as well as government to understand gender wise cause and

effect relationship (attitude and job performance) in different set up and will assist them is improvisation of the structures and systems being practiced for long.

The study also attempts to study the correlation between qualification, age and job performance of teacher, this would facilitate the policy and decision maker to decide upon the composition of teaching staff to incubate teaching and learning environment more properly as compared to before.

The research would further help the administrators to design the most appropriate pedagogy to stimulate teaching and learning environment in the higher educational institutions giving specific importance of psychological inputs of teaching staff in a definite set up.

1.7 Summary of the Chapter

The chapter attempts to provide the probable reasons behind the selection of the stated topic that has motivated to carry out the research. After going through the chapter background of the study and need to carry out the research is clear and preliminary direction to think and proceed is also finalized. It also addressed the research gaps that have tried to be fulfilled through present work. The chapter has presented the basic understanding of the topic and has also defined the scope within which the work has to be carried out. One of the important outputs could be related to establishment the need to deep insight into the problem, a systematic investigation to the impact attitude on job performance of teachers.

CHAPTER - 2

REVIEW OF LITERATURE

CHAPTER – 2

REVIEW OF LITERATURE

2.1 Introduction

The chapter presents a compact view of the selected scholarly articles, literature and publication relevant to the topic of research. The chapter presents theoretical support framework to the research work. A literature review is conducted to presents a comprehensive summarization of the relevant academic content and records that highlights the study/ progress made in the field of study under consideration. It is actually a scope of the work that has already been done. The review of literature is prepared based on the careful analysis and summarization of the knowledge present in published sources like books, journals, magazines etc. Review of literature assists the researcher in developing a clear line of thinking and laying the foundation stone for further research work. It intensifies the views of research and imparts clarity to his vision and thinking. One of the main contributions of literature review could be related to the identification of gaps and lacunae in the selected field of study which finally leads to refinement of the study. In this chapter it is expected to include the theories, concepts and principles that relevant to the chosen topic of study. Pertaining to the research undertaken the chapter focuses mainly on the literature that are relevant to the specific topic selected and specific focus is given on the literature that were published after 2010, however to specify some fundamental concepts like attitude and its component even older literature are cited. The first stage of literature review has helped to understand the broad conceptual framework which has helped to develop a basic understanding of the topic, issues and problem involved. On the basis first stage the field of research was chosen and research gaps were identified. The second stage of literature review has helped to crystallize the topic, scale preparation, validation, and model preparation and finally assisted in analysis and interpretation. Pertaining to the present research the chapter of literature review starts with the present status of higher education in India and also explains the paradigm shift in higher education. Changing profile of teachers, teaching and how teaching has evolved from its old frame to learning has also been discussed. Key performance indicators of teacher are also briefed along with the competencies required by a teacher for being an effective teacher. In later part details of attitude its concept, nature, functions, and theories of attitude formation are discussed. The dimensions of attitude of a teacher are expressed and its impact of on

performance is also presented. In last the conceptual framework highlighting the inter-relationship between attitude and job performance is also mentioned.

2.2 Summary of the Topic wise Literature Survey

Table-2.1.1-Topic wise Literature Survey

Sl. No	Topic	Type of Literature Surveyed					
		Journals/ Articles	**Thesis**	**Seminar / Conference Proceedings/ Books**	**News Paper**	**Total**	**Relevant to my Topic**
1	Higher education in India: Present status	18	2	5	4	29	8
2	Paradigm shift in higher education in India	21	1	7	3	32	9
3	From teaching to learning	15	1	4	3	23	6
4	Change in Profile of learners and their mindsets	16	1	5	2	24	10
5	Teaching to facilitation of learning – Role of a teacher	12	1	8	2	23	9
6	Key Performance Indicator of a Teacher	19	2	8	1	30	10
7	Competencies needed for being an effective teacher	14	1	9	1	25	6
8	Correlation between demographic factors like age, qualifications and gender of job performance of a teacher	19	1	10	2	32	7
9	Concept of attitude	14	1	6	3	24	7
10	Characteristics/ nature of attitude	16	1	6	2	25	8
11	Component of Attitude	10	1	6	2	19	8
12	Theories of attitude formation	17	1	6	2	26	10
13	Dimensions of attitude of a teacher	12	1	3	2	18	8
14	Impact of attitude on Job performance	24	1	4	4	33	14
	Total	227	16	87	33	363	120

2.3 Higher Education in India: Present Status

The Indian higher education is ranked as 3rd largest higher education system in the world, only USA and China are ahead of India in this field. Presently the Indian higher education is being governed by UGC under the aegis of Ministry of HRD (now Education Ministry). As per AISHE report2018 – 2019, the total no of registered universities in India is 962, which itself explains the vastness of the Indian higher education system.

Box 2 : Response of Universities during 2018-19		
Type of university	**Number of Universities**	**Number of Response***
Central University	46	44
Central Open University	1	1
Institution of National Importance	127	122
State Public University	371	364
Institution Under State Legislature Act	5	4
State Open University	14	14
State Private University	304	289
State Private Open University	1	0
Deemed University- Government	34	34
Deemed University- Government Aided	10	10
Deemed University- Private	80	80
Grand Total	**993**	**962**

*Including 18 universities which have uploaded data for AISHE 2016-17 to 2017-18.

Fig.-2.2.1 -No of Registered Universities

(Source: http://aishe.nic.in/aishe/viewDocument.action?documentId=262)

The last decade has witnessed the mushrooming of universities and colleges all over India to impart education, teaching and learning process; however the quality of delivery and higher education is still a matter of concern. For overall improvement of the higher education in India standard benchmarking as compared to international level is much required. The future of higher education is computer/ internet based teaching so strengthening of communication system and internet based infrastructure is must especially in rural India.

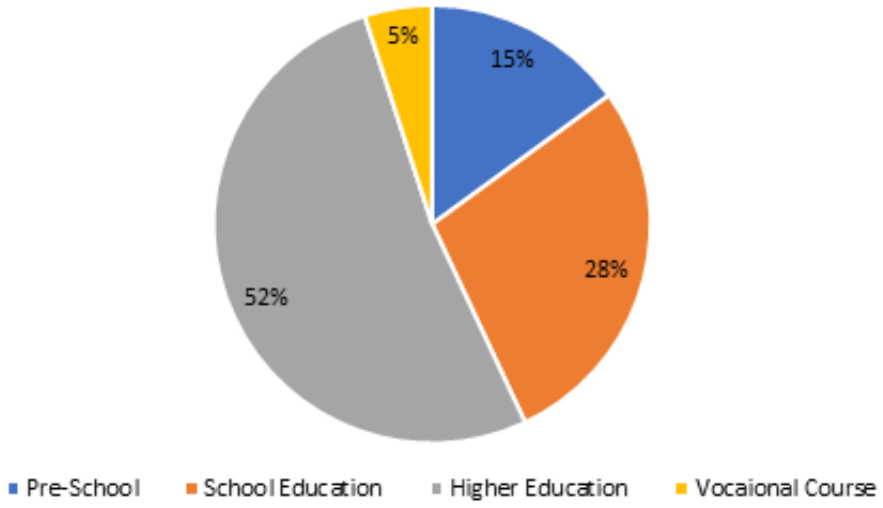

Fig.–2.2.2–Education Sector in India: Market Contributions

Source: https://www.televisory.com/blogs/-/blogs/education-industry-in-india-an-overview

Today`s era is witnessing the public private partnership, student centered dynamic approach and mobilization of resources in the higher education system to support sustainable and economic development of India, however still the quality is a major concern.

Table-2.1.2-Literature review of the article on higher education in India: Present status

Sl No	Tag	Title	Author, Year	Gist	Linkage to the Study
1	Journal Article	Indian Higher Education: Issues and Opportunities, *Journal of Critical Reviews*, 7(2), 542-545	Saravana kumar, A., R., and Devi, K., R., P., (2020)	Indian higher education system is finding it difficult to meet the need of unplanned social and economical expansion of the nation and uneven growth as a result of that the no of educated unemployed population is increasing. Commercialization of education, limited creativity and teacher burnout are adding to the problem, therefore the existing higher education needs over oiling and Improvement.	The impact of population growth and unplanned economic expansion has impacted the status of higher education in India

2	Journal Article	Higher Education System in India: Challenges and Opportunities, *International Journal of Scientific & Technology Research*, 8(12), 2213-2217	Srimathi, H., & Krishnamoorthy A., (2019),	India is growing rapidly and its contribution in nation building cannot be undermined. The recent government initiatives has improved and accelerated the growth of nation, however the higher education standards should be comparable to the international standards so as to capture a major share in the global workforce. Higher education infrastructure and network is important for socio economic development of the nation.	The need of inter-comparison of the Indian higher education with International standards and emergence of higher education infrastructure has defined the status of higher education in India
3	Journal Article	Latest Trends in Higher Education in India: A Study, *Addaiyan Journal of Arts, Humanities and Social Sciences*, 1(1), 61-68	Kakati, M., (2018),	Indian higher education system should become more vibrant ad adopt standard benchmarking for overall improvement in terms of teaching- learning, delivery – instruction and administrative related task and it should be treated as the first priority of government toward nation	The need of international benchmarking in education and education as priority of government highlights the current status of education in India
4	Journal Article	A study on higher education in India: Issues, challenges and directions, *International Journal of Multidisciplinary Research and Development*, 4(2), 188-191	Sharanabasappa, C., B., & Kadamudimatha, B., N., (2017)	Indian higher education system has gained its pace post independence and is an avenue to solve all evils of the society and could be treated as the key to solution of the problems. Incentive to research/ teachers, public private partnership, student centered dynamic approach and mobilization of resources is much needed in the Indian higher education.	The impact of student centered approach, public private partnership and mobilization of resources has impacted the status of higher education in India

5	Journal Article	Current Scenario of Higher Education in India: Reflections on some Critical Issues, *International Research Journal of Social Science & Humanities*, 1(1), 73-78	Hiremath , S., S., & Albal, D., A., (2016)	Indian higher education system has developed a knowledge base society and has improved in terms of quantity; however the higher education system needs to be more vibrant in terms of quality and competitiveness.	The study expressed the present status of Indian education system its problems and prospects.
6	Journal Article	Present Scenario of Higher Education in India, *Journal of Youngish Teachers' Interaction Forum*, 1-6	Matliwala, K., (2016),	India higher education sector and government needs active support of private players and foreign players in strengthening the infrastructure of higher education in India	Public , private partnership in higher education express the status of present status of higher education in India
7	Journal Article	Higher Education in India: Emerging Issues, Challenges and Suggestions, *International Journal of Business Quantitative Economics and Applied Management Research*, 1(11), 67-74	Chahal, M., (2015)	Higher education in India has to be strengthen more to transform India to become a global accelerator of growth also the research and development part of higher education system should be stressed more to improve the quality and standard of the higher education.	The need of research and the quality improvement in higher education has defined the present status of higher education
8	Journal Article	Status of Higher Education in Sustainable Development of Rural Areas: A Study on Goreswar Area of Baksa (BTAD) District, *International Journal of Humanities & Social Science Studies*, 1(4), 105-110	Dasgupta , R., (2015)	Higher educational institutions are located in and around the urban India and its growth is awaited in the rural India. The strengthening of higher education sector is much required for sustainable and economic development of India because the higher education acts as the backbone of development	The need of combined and balanced development of higher education in Urban and rural India has explained the status of higher education in India

2.4 Paradigm shift in Higher Education in India

Since independence India has witnessed paradigm shift from institutional learning to open and online learning. The pre independence era has witnessed the higher education under colonial rule followed by the dominance of government sector or government aided institutions. Till late 60`s the higher education institutes experienced the era of restructuring and has strictly followed the nationalized education policy. The late 70`s have witnessed the setting up of and strengthening the institutes of national importance and eminence and has helped in sharpening the competitive edge of higher education. The higher education in India in mid 90`s has also witnessed a paradigm shift from government owned institutions to private and private public partnered institutions transforming the higher education composition and infrastructure. The Indian society has witnessed the large scale proliferation of higher educational institutes and it is evident from the mushrooming of institutes and universities throughout the state.

This development has lead to creation of well qualified pool of talent however on the other side the number of unemployed educated youth has also increased. One side effect of the proliferation and privatization of institutes could be effectively related to depriving poor of quality education. The frames of higher education in India is changing at a very fast rate subsequently resulted into a professional approach to teaching and learning. Finally today internet based online education is writing the future of higher education in India, however One of the evident shifts is witnessed in the decline of the conventional courses being replaced by professional courses.

Table-2.1.3-Literature review of the article on paradigm shift in higher education in India

Sl No	Tag	Title	Author, Year	Gist	Linkage to the Study
1	Journal Article	Paradigm Shift in Indian Higher Education Accreditation, Internal Quality Assurance in HEIs, 76-89	Patil, J.,(2019)	The role and importance of accreditation in improvement of standards of higher education in India is indispensible. The reforms in higher education sector via accreditation have improved transparency, data management and inclusion of information communication and technology and hence the overall process of quality	The accreditation and reforms in higher education, improved transparency, data management and inclusion of information communication has highlighted the paradigm shift in higher education

				enhancement is triggered	
2	Journal Article	Paradigm Shift in Indian Higher Education: challenges Ahead, Voice of Research, 7(2), 1-4	Saha, K., (2018)	Higher educational system is a meaningful way to secure a better life. India presently is lagging the access to quality education as compared to developed nations of the world but the infrastructure has improved a lot as compared to the pre independence era. A paradigm shift is required in the higher education system of India to create a knowledgeable and sustainable workforce.	The number of institutions imparting higher education has improved however quality is still a question mark
3	Journal Article	National Digital Library: A Platform For Paradigm Shift in Education and Research in India, *Science and Culture*, 82(1-2), 1-11	Das, P., P., et.al, (2016)	Indian higher education system is facing challenge however through an active leverage of information and communication technology and online teaching platform the effect has subsided considerably. The sector has witnessed paradigm shift in terms of integration of pan-India virtual teaching-learning-evaluation-knowledge platform to the traditional system.	The higher education sector has witnessed paradigm shift in terms of integration of pan-India virtual teaching-learning-platform has highlighted the paradigm shift in higher education
4	Journal Article	Paradigm Shift in the Field of Higher Education, *Golden Research Thoughts*, 2(11), 1-6	Bisen, D., K., & Kudnar, N., S., (2013)	Higher education in India has become more adaptable and affordable and has become an investable platform to provide training and skills. After 1980 the role of private player becomes prominent in the higher education	More affordable higher education and change in composition of higher education to inclusion of private players has highlighted paradigm shift in

				system in India and the country has witnessed the growth of non university institutions to support the demand of a growing economy like India.	higher education
5	Journal Article	Paradigm Shift in Knowledge Creation through Higher Education, IOSR Journal of Humanities and Social Science, 13(2), 1- 7	Chaudhary, V., M., & Malik, S., (2013)	Higher education in India is producing knowledge workers and with well resourced higher educational institutions and relaxed and standard academic norms has smoothed the process. The Indian higher education system witnessed the growth from a cast based education system to a more developmental, training oriented and relaxed system.	The emergence of traditional higher education to developmental, training oriented and relaxed system has added to paradigm shift in higher education

2.5 From Teaching to Learning

Teaching to facilitation of learning bridges the gap between the pedagogy and the learning process of the students. The facilitation from teaching to learning is a student centered approach dedicate to learning and concentrates on individual conduct of the student. The higher educational institutes round the India has transformed and are concentrating more on motivating the students to develop their own thoughts and self exploration. The facilitation of learning in higher educational institutions in India has made the learning process easy and reachable. As compared to the traditional teaching method now more concentration is given on creating, discovering, and applying learning insights in the practical life and markets. The drift from teaching to learning has motivated students to carry out their efforts and self learning endeavors. The role of teacher has upgraded to moderator, who not only guides the students but also simplifies the learning ways whenever a student or learner is trapped in learning dilemma or struggle. The facilitation of teaching to learning has replaced the instructional learning with engaged and developmental learning and has equipped the higher education system in India to adopt innovation, expectations and change.

Table-2.1.4-Literature review of the article from teaching to learning

Sl No	Tag	Title	Author, Year	Gist	Linkage to the Study
1	Journal Article	Effect of Learning Module with Setting Contextual Teaching and Learning to Increase the Understanding of Concepts, *International Journal of Education and Learning*, 1(1), 19 – 26	Dewi, P., Y., A., & Primayana, K., H., (2019)	The journey from teaching to learning has not only impacted the methodology that a teacher adopts to teach students rather it has helped both the teacher and taught to increase their understanding level and mental receptiveness	The shit to learning has impacted the methodology that a teacher adopts
2	Journal Article	Teacher Awareness, Teaching Confidence and Facilitation of Learning for Children with Special Educational Needs (SEN) in an Inclusive Classroom, *Education Perspectives*, 8(1), 82-94	Senarath, S., (2019)	Now a day's teachers have become facilitators, and to facilitate teaching they themselves goes through a lot of specific training courses and refresher courses to match their skills with specific needs of students	The shit to learning from teaching has made teacher to match their skills as per the need of students
3	Journal Article	Why Does a Teacher Need to Facilitate the Learning? : A Comparative Study, *Journal of Educational and Social Research*, 4(2), 47 – 50	Aktepe, D., & Coskun L., (2014)	An effective teacher always facilitates learning and with a well-planned pedagogy he delivers and develops learning materials matching with the understanding and grasping level of students	Well planned pedagogy and development learning materials to facilitate the journey from teaching to learning
4	Journal Article	Teachers Role as Facilitator in Learning, *Scholarly Research Journal for Humanities Science & English Language*, 3(17), 3903 – 3905	Jagtap, P., (2016)	The globalized era has made the difference between the teaching and learning clear and has carried out many innovations including Learning to live, learning to know, learning to do, and learning to be	The shift from teaching to learning has resulted into inclusion of many innovations.
5	Journal Article	Receiving the Gift of Teaching: From Learning From to	Biesta, G., (2012)	Teaching should impart practical insight in addition to the course and syllabus and even is should go	The shift from teaching to learning has added a practical

		Being Taught By, *Studies in Philosophy and Education*, 32(5), 449–461		beyond the facilitation of learning in terms of carving out what s already there inside the student and shape it to make the learning process smooth	insight to facilitate learning

2.6 Changes in Profile of the Learners and their Mind Sets

Learning is a systematic process of grasping new knowledge and it exists as long as the journey of mankind is. Learning has experienced paradigm shift in the process and pedagogy and still it is evolving as per the need of individuals and groups. The learners are also subsequently evolving from instruction based standard learning to diversified and open learning. The learners are now more adaptive to a diverse and universal approach and favour self-learning to get an edge in traditional or professional higher education. Earlier students assumed to have a fixed and pre meditated approach towards education however the present era has witnessed a shift towards sustainable and self-propelled learning, where the role of learner becomes pivotal in teaching and learning process. Now a day`s the learning ability of a student doesn't only depends on their cognitive and grasping abilities rather they are being influenced by their attitude values and conation. While encountering any academic struggle a learner now adopts an open mindset and a practical approach rather than having a fixed and pre meditated mindset.

Table-2.1.5-Literature review of the article on change in profile of the learners and their mind sets

Sl No	**Tag**	**Title**	**Author, Year**	Gist	**Linkage to the Study**
1	Journal Article	Growing a growth mindset: characterizing how and why undergraduate students' mindsets change, *International Journal of STEM Education*, 2-19	Limeri, L.,B., et.al, (2020)	The authors stressed that modern learner believes in accepting challenges in the field of academics and tries to solve it with new strategies and increasing efforts	The profile of the learner has changed from traditional to modern and diversified.
2	Journal Article	Integrated work study program: Students' growth mindset and perception of change in work-related skills,	Mui, M., L., S., Foo, Y., L., Yeo, M., F.,	Now a day`s mindsets of students (graduate) is polarized toward work related skills and more application of mindset	The modern learners require more job related and professional

		International Journal of Work-Integrated Learning, 21(2), 103-115	Chan, C., Y, X., & Loh, H., T., (2020)	interventions is required which in turn improves the academic achievements of students	skills
3	Journal Article	Everyone Designs: Learner Autonomy through Creative, Reflective, and Iterative Practice Mindsets, *Journal of Formative Design in Learning*, 1-13	Henriksen, D., Cain, W., & Mishra, P., (2018)	In the globalized era, it is really important to improve instructional methodology to facilitate learner's autonomy and to give lifetime learning experiences to them to meet the need of changing profile and expectations of the learners	The modern learners/ students are more receptive towards motivational learning rather than instructional learning
4	Journal Article	Effects of Academic Mindsets on College Students' Achievement and Retention, *Journal of College Student Development*, 58, 1119 – 1134	Han, C., W., Farruggia, S., P., & Moss, T., P., (2017)	The academic performance of the students largely depends on their mindsets and as the mindsets of students are versatile and uneven therefore, formal interventions are required to promote self- efficacy among the learners	The mindsets of students are versatile and self efficacy is more valued
5	Book Chapter	Toward an Integral Approach for Evolving Mindsets for Generative Learning and Timely Action in the Midst of Ambiguity, *Teachers College Record*, Columbia University, 115	Yorks, L., & Nicolaides, A., (2013)	To satisfy the changing mindsets and expectations of the learners new methodology and approaches are required and this warrants the need of more systematic research in the stated field	The new methodologies and innovative approaches to teaching are much required to satisfy today`s learners
6	Journal Article	Educational Technology at the Crossroads: New Mindsets and New Directions, *Educational Technology Research and Development*, 37(1), 67-80	Reigeluth, C., M., (1989)	The intention and engagement of learners have to be concentrated to develop social attitudes, conceptions, and moral character also external influence on students have to be managed properly to facilitate learning	The changing mindset and profile of learners requires engagements and environment management

2.7 Teaching to Facilitate Learning

If the word human has to be defined then the first thing that will come is that humans are the species on earth which are highly intelligent because of their thinking, analyzing and questioning abilities. Over the years of human evolution, it can be seen that humans have always been interdependent on one another. They never preferred living in isolation. Human beings are therefore social animals and for our survival we have always depended on other humans' efforts. The process of teaching, learning and knowledge sharing will therefore continue for ages to come. Over the years there has been evolution of teaching methods for knowledge sharing which have now reached to the stage of teaching to learning.

Table-2.1.6-Literature review of the article on teaching to facilitation of learning

Sl No	**Tag**	**Title**	**Author, Year**	**Gist**	**Linkage to the Study**
1	Journal Article	Toward an Integrated Theory of Teaching and Learning, *Educational Psychologist*, 28(4), 291- 311	Shuell, T.,J., (2010)	Teaching and learning are building blocks of education structure. They are interdependent and closely connected. They share similar principles and have more or less same goals. In any education institution one cannot take place without another	Teaching and learning have evolved but both are inter – related and inter dependent
2	Journal Article	From Teaching to Learning: Learner-Centered Teaching and Assessment in Information Systems Education, *Journal of Information Systems Education*, 19(2), 169-174	Saulnier, B., M., Landry, J., P., & Wagner, T.,A., (2008)	Teaching paradigm is now expressed as a subset of learning also the assessment patterns have changed over the years. Now student's knowledge gain is given priority. Instructors are also assessed in terms of their style, connectivity with students, and quality of lecturing etc. by higher authorities	The student's knowledge is the main focus of learning and it could be expressed in terms of their qualities
3	Journal Article	Developing Principles for Practitioner	Allwright ,	The teaching style must reflect the change in the real world so as to adapt to	The transformation from teaching to

		Research: The Case of Exploratory Practice, *The Modern Language Journal*	D.,(2005)	the changes happening, the learner should be placed at the center of learning process and meeting their needs	learning must be felt in the style of teaching and learning
4	Journal Article	When Teaching Becomes Learning, *Cognition and Instruction*, 20(2), 119 – 150	Sherin, M., G., (2002)	The teaching pedagogy and methodology has evolved from instruction based set up to a motivating teaching and learning environment according to the needs of students and for sharing knowledge in formal way, there are two inter-related ways, Subject matter knowledge and Pedagogical content knowledge. The teachers in the process should pose appropriate questions for students to help them rethink and bring out new ideas	The evolution of learning is always student centric and has lead to development of subject matter and pedagogical content
5	Journal Article	Teaching, as Learning, in Practice, *Mind, Culture, and Activity*, 3(3), 149-164	Lave, J., (1996)	Teaching and learning are the finest examples which acted as catalyst in the process of human evolution and have a significant impact social nature of learning	The evolution from teaching to learning has added to the up-gradation of social life
6	Journal Article	From Teaching to Learning - A New Paradigm for Undergraduate Education Change, *The Magazine of Higher Learning*, 27 (6), 12-26	Barr, R., B., & Tagg, J., (!995)	From point of view of higher education, the shift from teaching to learning is the great challenge to the higher education. The learning paradigm views the teacher as a coach, coach not only designs a solution but also create new and better solutions ones that more and better way to find the solution. Knowledge is presents in each person but it can be	The shift from teaching to learning can also be viewed as a positive change in behavior of an individual.

				developed by individual experience and learning brings about changes in the behavior of an individual	
7	Journal Article	Teaching for Learning, *AARE Bulletin*, 39(8), 1-6	Patricia, C., K., (1987)	The world is changing, it is felt that the process of knowledge sharing should not be restricted rather there should be certain reforms that might bring another factor called excellence besides learning	The transformation from teaching to learning has brought excellence in the system
8	Journal Article	The Teaching of Learning Strategies, *Innovation Abstracts*, 5(32), 1-4	Weinstein, C., E., & Mayer, R., E., (1983)	Learning and teaching strategies can be defined as behaviors and thoughts in which a learner strategy may be to affect the learner or affect the way in which the learner selects new knowledge	The transformation from teaching to learning has helped the learner tto select their own way of learning

2.8 Key Performance Indicators of a Teacher

The job performance signifies how well an individual carries out the duties and tasks assigned to him effectively and efficiently. It could be related to the completion of the standard expectancy from the person in terms of behavior and output within a set of time frame. The basic performance of teachers in higher education in India depends on their sense of responsibility, Knowledge, skills, methodology of teaching and other personal characteristics like cognition and knowledge processing, however external factors like work environment, support of hierarchy also impacts the performance. Periodic performance evaluation is required for the growth of teachers, students, institution and the entire higher education, but for this the identification of performance parameters/ key performance indicators is required. In this regard a comprehensive key academic performance indicator system was proposed by UGC for career advancement and promotions in higher educational institutions. In accordance with the 4th amendments of UGC regulations in 2010, which was carried out in 2016, PBAS scheme was introduced formally for calculating proposed scores for academic performance of teachers working in higher educational institutions/ colleges/ universities. The system was comprehensively adopted by universities,

affiliated colleges, government funded higher educational institutes and other private colleges and universities.UGC PBAS has three parameters to evaluate performance of teachers

- Teaching learning and evaluation related activity
- Co- curricular, Extension and Professional Development related Activities
- Research and Academic Contributions

Table-2.1.7-Literature review of the article on key performance indicators of a teacher

Sl No	**Tag**	**Title**	**Author, Year**	**Gist**	**Linkage to the Study**
1	Journal Article	KPIs Identification for Performance Evaluation: A Case Study of Academic Staff in Engineering and Technology Universities in Hanoi, *Asian Journal of Research in Education and Social Sciences*, 2(2), 1-9	Ngoc, P., T., K., & Anh, D., H., (2020)	The key performance indicators in terms of which academic performance of a teacher could be expressed are Research and innovation, teaching and supervisor, publication, consultancy and Services, particularly in engineering and Technology University in Vietnam	Research and innovation, teaching and supervisor, publication, consultancy and Services are some key performance indicators
2	Journal Article	Evaluation of Faculty Performance on Introduction of Continuous Annual Faculty Evaluation Score (CAFE), *Indian Journal of Public Health Research & Development*, 10(11), 3696 – 3700	Nallaswamy, D., Geetha, R., V., & Subha, M., (2019)	Punctuality and professional ethics could be treated as one of the important dimensions of expression of job performance of a teacher	Punctuality and professional ethics is on of the important parameter of performance indicator.
3	Journal Article	Issues in Malaysian Higher Education: A Quantitative Representation of the Top Five Priorities, Values, Challenges, and Solutions From the Viewpoints of Academic Leaders,	Ghasemy, M., et al., (2018)	The key performance indicator of a teacher ranges from performance in Academic activities, Management related responsibilities, examination related task, Leadership abilities and	Participation in CCA, Leadership abilities are some key area of performance for teachers in higher education

		Sage Journals, 1-15		work values and ethics	
4	Journal Article	A Study on the Academic Performance of College Teachers based on Key Performance Indicators, *International Journal of Trend in Scientific Research and Development*, 2(3), 259- 261	Anuradha, K., Subasri, B., & Vignesh, S., (2018)	The UGC – API system is framed to measure the performance of a college teacher, the system is comprehensive and is for the betterment for all the stakeholders including the institution, teacher and student	UGC – API system is best to measure the job performance of a teacher
5	Journal Article	Influence of Academic Performance Indicators on the Quality of education and Research, *University News*, 55(21), 7-10	Mann, J., S., (2017)	Research and academic contribution as one of the indispensible key performance of teachers, he also highlighted that due to poor quality research and less accountability the entire education system in India is suffering	Research and Academic contributions are the key points in measuring performance of a teacher in higher education
6	Conference Paper	Selecting Key Performance Indicators in Universities – Academic Perspective, XVII International Scientific Conference on Industrial Systems, 518 – 521	Tasic, N., et al, (2017)	Selection and defining performance indicators for performance measurement of a teacher is very important and it could further classified into teaching and learning, research, Knowledge Transfer, Regional Engagements and Internationalization	Teaching and learning, research, Knowledge Transfer, Regional Engagements and Internationalization are some key performance indicators
7	Journal Article	Key Performance Indicators for excellent teachers in Malaysia: A measurement model for excellent teaching practices, *International Journal of Productivity and Performance*	Amzat, I., H., (2017)	The performance of a teacher could be measured in terms of pedagogy adopted by a teacher, his teaching skills and classroom management skills; however the methodology of teaching is having a weak correlation with performance	Teacher`s performance could be expressed in terms of classroom skills and pedagogy

		Management, 66(3)		excellence	
8	Magazine	Academic Performance Indicators Straitjacketing Higher Education, *Economic & Political Weekly*, 49(50), 68-71	Das, D., N., & Chattopadhyay, S., (2014)	The API – PBAS system is well accepted method for governance and knowledge creation, it also acts as measures for performance indicator of a teacher but it is having and adverse impact on academic ambience	UGC – API is well accepted method to measure performance but it may suffer some adverse affects
9	Journal Article	Status of Academic Performance Indicator (API) for College Teachers of Madhya Pradesh: *A Review, Research Journal of Educational Sciences*, 2(5), 5-13	Baroniya, S., S., Gadge, S., Baroniya, M., B., & Vyas, H., (2014)	UGC – API regulation is an efficient tool made for the betterment of teaching, teacher`s and student`s, the additional things along with teaching like exam related duties and others will make teacher multidimensional	UGC – API could be treated as effective tool to measure performance of a teacher

2.9 Competencies Needed for Being an Effective Teacher

Competencies define the skills, belief, motivation and value that a teacher should possess. To sum up competencies of a teacher is very difficult as a teacher can mould himself according to the need and requirements of students and environment. Some of the core competencies that all teachers should possess are listed below but not limited to

- Open minded, flexible to learn
- Able to create positive teaching and learning environment
- Good pedagogy and subject expert
- Easily assessable and master of innovative strategies
- Ability to motivate and guide learners after establishing the specific learning needs
- Good at expression and communication
- Professional appearance, commitment and positive attitude
- Team worker and out of the box thinker

Competencies possessed by a teacher allow him to become master of his profession and enables him to identify skills, knowledge and abilities for successful discharge of his duties thus casting a positive impact on his psychology. The competencies of a teacher not only add to his professional career rather it helps him to obtain his specific identity and also adds to the identity of the institution **(Sharma & Srivastava, 2015).** Teachers' competencies involve the ability to meet complex demands of today's teaching and learning environment. Some of the common competencies of a good teacher involve pedagogic innovations, communication, subject domain knowledge, flexibility, positive mind-set, ICT expertise etc. These competencies motivate a teacher to contribute to success of taught, society and nation also enables a teacher to establish relationship among himself and different stakeholder of educational infrastructure. These competencies help teacher to get a control and mastery over lessons, delivery and instructions and casts a positive psychological impact on his personality and enables him to distinguish among right and wrong and hence helps in shaping attitude.

Table-2.1.8-Literature review of the article on competencies needed for being an effective teacher

Sl No	**Tag**	**Title**	**Author, Year**	**Gist**	**Linkage to the Study**
1	Journal Article	Teacher competencies in game-based pedagogy, *Teaching and Teacher Education*, 74,85-97	Nousiainen,T., Kangas, M., Rikala, J., & Vesisenaho, M., (2018)	The optimal competencies results into better job satisfaction in long run and increases the chance of success in professional career	Better competencies increases the chance of success in long run
2	Journal Article	National Digital Library: A Platform For Paradigm Shift in Education and Research in India, *Science and Culture*, 82(1-2), 1-11	Das, P., P., et.al, (2016)	The competencies possessed by a teacher helps them to manage his skills and emotions and make them an expert and finally help them to bridge the gap between job requirement and job performance	Competencies of a teacher helps him in bridge the gap between job requirement and job performance
3	Journal Article	The Competencies of the Modern Teacher, *Bulgarian*	Nessipbayeva, O., (2012)	Attitude, Knowledge and skills are the three main competencies that a teacher	The main competencies of a teacher could be

		Comparative Education Society, 148-154		should have and teacher is a disseminator who provides student with the required personal and professional skills effectively and sensitively	effectively related to Attitude, Knowledge and skills
4	Journal Article	Internationalization of Higher Education: Preparing Faculty to Teach Cross-culturally, *International Journal of Teaching and Learning in Higher Education*, 23(3), 373-381	Gopal, A., (2011)	The globalization of markets and internationalization of higher education has added another dimension to the competencies of a teacher in terms of knowledge and comprehension, gender roles, cultural self awareness, language, skills, reflexivity and self-reflection	Cultural self awareness, language, skills, reflexivity and self-reflection are added to competency as a result of globalization
5	Journal Article	Teachers' Competencies, *Cultura. International Journal of Philosophy of Culture and Axiology*, 7(1), 167-175	Selvi, K., (2010)	The competencies possess by a teacher deeply impacts their personal aspects and professional career and they could further be explained in terms of Research, Curriculum, Lifelong learning, Social- cultural, Emotional and Communication	Research, Curriculum, Lifelong learning, Social- cultural, Emotional and Communication are some key competencies
6	Journal Article	Prioritization of online instructor roles: implications for competency-based teacher education programs, *Distance Education*, 30(3), 383 – 397	Bawanea, J., & Spector, J., M., (2009)	One of the main competencies of a teacher could be related to management of role and skills in coordination with time and advancement in technology, as a better coordination may result into better synthesis of results related to self and students	Competencies of a teacher could be related to management of role and skills in coordination with time
7	Journal Article	Internationalization of Higher Education: Preparing Faculty to Teach Cross-culturally, *International Journal*	Gopal, A., (2011)	The globalization of markets and internationalization of higher education has added another dimension to the competencies of a teacher	Cultural self awareness, language, skills, reflexivity and self-reflection are added to

		of Teaching and Learning in Higher Education, 23(3), 373-381		in terms of knowledge and comprehension, gender roles, cultural self awareness, language, skills, reflexivity and self-reflection	competency as a result of globalization

2. 10 Correlation Between Demographic factors like Age, Qualifications and Gender of Job Performance of a Teacher

Positive attitude in favourable direction increase effectiveness and efficiency of a teacher however demographics like gender, age, qualification may or may not have an impact on performance on a teacher, so a deep investigation is further required. Many authors have also found the relationship to be non-significant and positive; however the research of some researcher reveals that the relationship between gender, age, qualification is significant less and positive. Some of the important literature that has been undergone through are as following

Table-2.1.9-Literature review of the article on impact of Demographic factors like age, qualifications and gender of job performance of a teacher

Sl No	Tag	Title	Author, Year	Gist	Linkage to the Study
1	Journal Article	Relationship between teaching experience and teacher effectiveness: implications for policy decisions, *Journal of Instructional Pedagogies* 22, 1-19	Irvine, J., (2019)	The relationship between the experience of a teacher and his job performance (in terms of student`s achievement) and effectiveness in complex and nonlinear.	Experience is having no impact on job performance
2	Journal Article	Job Performance of Primary and Secondary School Teachers, *International Journal of Pure applied bioscience*, 6(2), 854-860	Chaithra, V., K., & Hiremath , U., S., (2018)	The demographic factors like Age, education, job experience is having a non-significant but positive relationship with job performance especially in rural school.	The impact of age, experience , education on job on performance is non-significant
3	Journal Article	Influence of Gender and Age of Teachers on Teaching:	Shah, S., R., & Udgaonk	From student point of view, If a teacher is compassionate about his	Age and gender is having no impact on job

		Students Perspective, *International Journal of Current Microbiology and Applied Sciences*, 2436-2441	ar, U. S., (2018)	teaching and imparts innovative and quality teaching then demographic factors like age and gender is having no impact on his job performance	performance
4	Journal Article	Gender Differences in Motivation and Teacher Performance in Core Functions in Kenyan Secondary Schools, Academic Journal of Interdisciplinary Studies, 7(1), 89-95	Wanakacha, C., K., Aloka, P., J., O., & Nyaswa, P., (2018)	Job performance of a teacher is a matter of social concern and the gender is having no impact on motivation and performance of teacher in terms of intrinsic and extrinsic aspects.	Gender is having no impact on job performance
5	Journal Article	Job Performance of Iranian English Teachers: Do Teaching Experience and Gender Make a Difference?, *Iranian Journal of English for Academic Purposes*, 6(2), 13-21	Sarani, A., & Rezaee, A., (2017)	Teaching experience is having an important role to play in performance and development of a teacher whereas gender is having no significant impact	The relationship between gender and job performance is not statistically significant
6	Journal Article	The Effect of Gender on Teachers' Job Satisfaction: A Meta-analysis, *Anthropologist*, 20(3), 385-396	Aytac, T., (2015)	In teacher`s opinion and perception, a lot of factors impacts job performance of a teacher, however the gender is having no significant impact on performance	Gender is having no significant impact on job performance
7	Journal Article	Age and Teaching Performance, *The journal of Higher Educatio*n, 63(3), 282-302	Kinney, D., P., & Smith, S. P., (1992)	It is evident from the research that there is a small but significant correlation between age and job performance but that too varied among different discipline.	The impact of age on job performance is very less

2.11 Dimensions of Attitude of a Teacher

Teacher's attitude explains the tendency of a teacher to behave in a specific way primarily with respect to student, teaching and learning practices, frames and structure of education and

educational policies etc. To a larger extent the first mentioned factor determines the behaviour of a teacher towards students and vice versa, if the relationship is cordial and cooperative then teacher and student both will be having favourable attitude towards each other and both parties will be working together towards the attainment of the goal.

Ahluwalia (2006) has expressed the attitude of a teacher in terms of 6 dimensions. Teachers Attitude Inventory was proposed by Dr. Ahluwalia, to measure teacher's attitude towards his/ her profession and students

- **Teaching profession** – It includes several dimensions like opinion about teaching, likeness of teaching, respect to the profession and optimism towards teaching etc.
- **Classroom teaching** – It includes the aspects related to classroom teaching that begets social atmosphere like discipline, classroom teaching, pedagogy etc
- **Child centered practices**- It includes that attitude of a teacher in terms of the practices that a teacher adopts while teaching in the class. It may be interpreted in terms of child centered teaching methodologies, Students behaviour, resource deployment strategies and practices adopted by a teacher to teach, motivate and guide students etc.
- **Educational process** - It highlights the assumption and belief of a teacher toward the teaching and learning process. It may be interpreted in terms of methodology of teaching, the delivery process, student teacher relationship, punishment, reward and motivation system etc.
- **Pupils –** Relationship between teacher and student, student development, sincerity among students, student's development, and increase in participation of students in academic and nonacademic activities are some common parameters in terms of which teacher s attitude and efforts towards pupils may be understood.
- **Teachers –** Teachers attitude may be interpreted in terms of qualities of a teacher, leadership abilities,

2.12 Impact of Attitude on Job Performance

The attitude of a teacher towards teaching impacts his interactions with students, colleagues and other stakeholders and hence impacts his performance. A positive attitude manages and guides the way a teacher interacts and communicates and casts a positive impact on his willingness to work in a team and towards attainment of the stated objectives of institution. A teacher having

positive attitude ignites the mind of the learners there by transforming the teaching and learning environment into a dynamic and open system where collaborative earning is more values than instructional learning. Positive attitude of a teacher affects his behavioural intentions towards the entire teaching and learning process. Teachers having a positive attitude can easily attach themselves with the organizational goals and values and work for the development of the institution.

Table – 2.1.10- Literature review of the article on impact of attitude on job performance

Sl No	Tag	Title	Author, Year	Gist	Linkage to the Study
1	Journal Article	Effect of Managing Employee Attitudes for Improved Performance of L.G.S.C., Enugu, Nigeria, *International Journal of Academic Research in Economics and Management Sciences*, 7(4), 64–77.	Offorbike, S., A., Nnadi, C., S., O., & Agu, J., C., (2018)	Employees who are having positive attitude are conscious and aware about the environmental and business dynamics and it leads to overall development, productivity and performance of self and entire organization	Attitude positively impacts job performance and they are positively correlated to each other
2	Journal Article	Impact of Employee Work Related Attitudes on Job Performance, *British Journal of Economics, Finance and Management Sciences*, 13(2), 93-105	Rahiman, H., U., & Kodikal, R., (2017)	The work relate attitude that a employee possess is having a deep impact on his job performance as they can easily correlate the organizational goals and values with their work	Attitude impacts Job performance
3	Journal Article	Relationship between Teachers' Job Satisfaction and their Attitudes towards Students' Beliefs and Motivation, English Language Teaching, 8(7), 46-61	Salehi, H., Taghavi, E., & Yunus, M., M., (2015)	There is a positive and significant relationship between job satisfaction and the attitude of teachers toward students motivation and hence their job performance	Attitude impacts Job performance
4	Journal Article	Teaching Attitude and Job Satisfaction of Secondary School Teachers, Shanlax International Journal of Education, 3(4), 1-6	Kavitha, S., & Venkateswaran, R., (2015)	The performance of a teacher can be maximum if he is having a positive attitude towards his profession also he derives a sense of positive satisfaction from his job	Attitude positively impacts job performance and they are positively correlated to each other

5	Journal Article	Impact of Attitude on Employees Performance: A Study of Textile Industry in Punjab, Pakistan, *World Applied Sciences Journal 30 (Innovation Challenges in Multidisciplinary Research & Practice)*, 191-197	Khan, I., Dongping, H., & Ghauri, T., A., (2014)	All the factors related to attitude, motivation and job commitment positively impacted the performance of employee	Attitude positively impacts job performance and they are positively correlated to each other
6	Journal Article	Teachers' Attitudes and Performance: An Analysis of Effects due to Teaching Experience, *International Interdisciplinary Journal of Education*, 2(9), 888-893	Harthy, S., S., H., A., Jamaluddin, S., & Abedalaziz, N,A., (2013)	Teachers who are having positive attitude about their profession and job have a direct and significant effect on their professional performance	Attitude impacts Job performance
7	Journal Article	Employee's Job Performance: The Effect of Attitude toward Works, Organizational Commitment, and Job Satisfaction, *Jurnal Teknik Industri*, 15(1), 13-24	Susanty, A., & Miradipta, R., (2013)	The attitude carried by employee is having a positive impact on performance of employee and hence his performance got improved also motivation plays an important role in improving the performance of employees	Attitude impacts Job performance
8	Journal Article	The effects of teachers' attitudes on students' personality and performance, *Procedia - Social and Behavioral Sciences*, 30, 738-742	Uluga, M., Ozden, M., S., & Eryilmaz, A. (2011)	The positive attitude of a teacher impacts the students personality positively and in turn the teacher`s performance goes teaching and knowledge transfer	Attitude positively impacts job performance and they are positively correlated to each other
9	Journal Article	How important are job attitudes? meta-analytic comparisons of integrative behavioral outcomes and time sequences,	Harrison, D., A., Newman, D., A., & Roth, P.,	The attitude of employees are core related to their behavior at work therefore, employees having positive attitude are supposed to be more engaged in their work	Attitude positively impacts job performance and they are positively correlated to each other

		Academy of Management Journal, 49(2), 305 - 325	L., (2006)	exhibiting a high level of work performance	
10	Journal Article	The Influence of Occupational Image Subculture on Job Attitudes, Job Performance, and the Job Attitude-Job Performance Relationship, *Human Relationships*, 39(7), 661 – 672,	Birnbaum, D., & Somers, M., J.(1986)	Work related attitude is having a significant impact on organizational performance and the impact is socio-physiological in nature	Attitude impacts Job performance

2.13 Gaps Identified

Pertaining to the topic selected for research "Impact of attitude of Job performance of teachers in higher educational institutions" considerable research has been conducted .Secondary literature from 363 sources (including research paper, books, thesis, conference proceedings etc) were scanned and studied on various topics related to the selected field of study. On the basis of literature review research gaps have been identified and it was noted that

- Very less work has been conducted to compare the intensity (correlation intensity) of Cognitive, affective and behavioural attitude of a teacher on their respective job performance
- Very less work has been conducted to compare the intensity (correlation intensity) of components of attitude and key performance indicators of a teacher
- In most of the research the impact of attitude on job performance is studied but very few attempts has been carried out to study the impact of attitude of male and female teachers in government funded and self-financed higher education institutions

The present research addresses the above mentioned gaps and tried to bring upon a statistic findings and conclusions.

2.14 Conceptual Model Framework

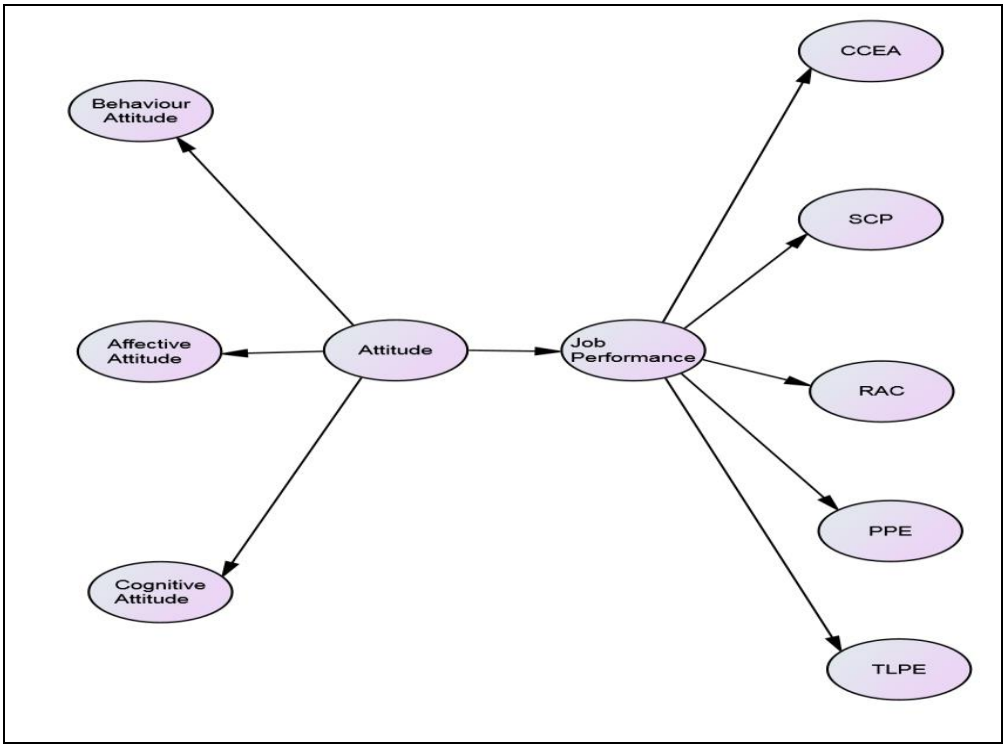

Fig – 2.2.3– Conceptual Model

The theoretical model presented above conceptualize the central theme of research where in the main objective is to find out the impact of attitude on Job performance of a teacher working in higher educational institute in NCR. It is evident from the literature support that overall attitude is composed of three components (cognitive, behavioural and affective attitude) and these components are correlated to each other. The key academic performance indicator system proposed by UGC measures the academic performance of a teacher in terms of teaching learning and evaluation related activity, Co- curricular, extension and professional development related activities and Research and academic contributions, in addition to these parameters (Mentioned by UGC) punctuality and professional ethics and Student`s performance and student centered practices were also added to make the key performance indicators more comprehensive. With the help of the theoretical model mentioned efforts has been made to study the correlation between attitude and job performance of teacher and how attitude of teachers impacts their job performance. It would be really interesting to know and calculate the interrelationship between cognitive, behavioural and affective attitude on overall attitude and correlation between Co-Curricular, Extension and Professional Development Activities (CCEA), Student`s Performance

and Student Centered Practices (SCP), Research and Academic Contributions (RAC), Punctuality and professional ethics (PPE) and Teaching, Learning Process and Evaluation (TLPE) on overall Job performance of a Teacher.

2.15 Profile of the Respondents

The demographic profile of the respondents on the basis of gender are represented below

Table-2.1.11-Frequency distribution of gender of respondents, N = 400

Gender	Count	Percentage
Male	200	50%
Female	200	50%
Total	400	100%

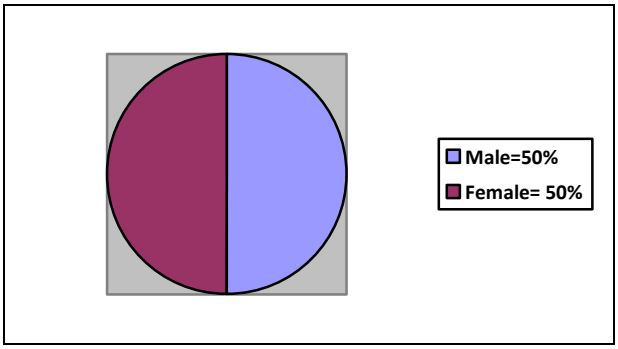

Fig.- 2.2.4-Gender of Respondents (Figure in %, N = 400)

Interpretation - From the table and fig it is evident that the response has been collected from 50% Male respondent and 50% female respondents.

The demographic profile of the respondents on the basis of qualifications are represented below

Table-2.1.12-Frequency distribution of qualifications of respondents

Gender	Count	Percentage
B. Ed./ M.Ed.	105	26.25%
M.Tech/ M.Sc /M.C.A	110	27.5%
UGC-NET	28	7%
Ph.D.	157	39.25%
Total	400	100%

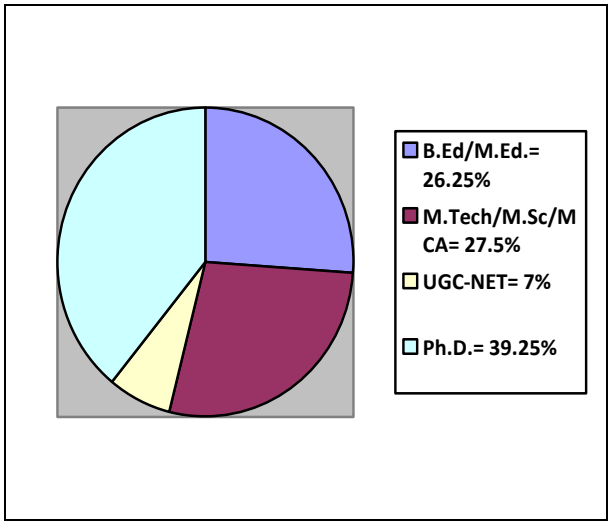

Fig.-2.2.5- Qualifications of respondents (Figure in %, N = 400)

Interpretation – From the table and chart it is evident that the response has been collected from 39.25% respondents who were having Ph.D. as their highest qualification, followed by 27.5% respondents who were having M.Tech/ M.Sc/M.C.A as their highest qualification, another 26.25% respondents were having B. Ed / M.Ed as their highest qualification and rest 7% respondents were having UGC - NET. as their highest qualification

The demographic profile of the respondents on the basis of age are represented below

Table-2.1.13- Frequency distribution of age of respondents

Gender	Count	Percentage
Less than 30 Years	14	3.5%
31 years to 40 Years	141	35.25%
41 Years to 50 Years	140	35%
51 years and Above	105	26.25
Total	400	100%

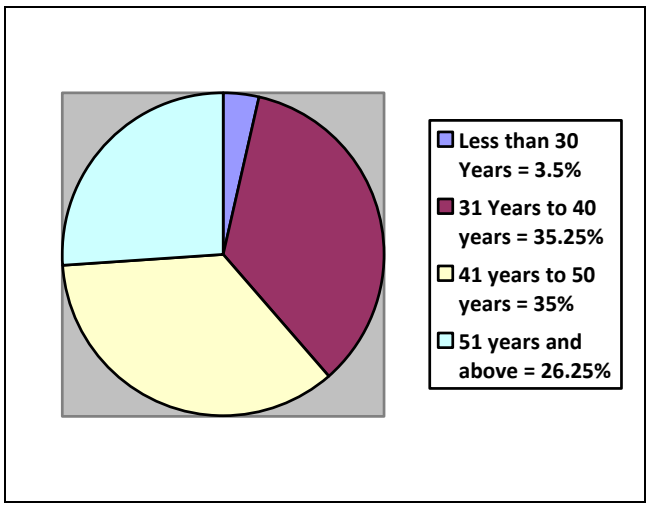

Fig.- 2.2.6-Age of respondents (Figure in %, N = 400)

Interpretation – From the table and fig. it is evident that 35.25% respondents were between 31 to 40 years age, followed by 35% respondents who were between 41 to 50 years age, another 26.25% respondents were between above 51 years age and rest 3.5% respondents were less than 30 years age

Cross Tabulation of Gender Age and Qualification

Table-2.1.14-Gender * Age Cross tabulation

		AGE				Total
		Less than 30 Years	31 years to 40 Years	41 Years to 50 Years	51 years and Above	
GENDER	Male	3%	38%	32.5%	26.5%	200 Respondents
	Female	4%	32.5%	37.5%	26%	200 Respondents

Interpretation – From the table it is clear that out of the total respondents (200 male respondents and 200 female respondents) 3% male respondents and 4% female respectively were below 30 years of age, followed by 38% male respondents and 32.5% female respondents between 31 – 40 years of age, another 32.5% male respondents and 37.5% female respondents were between 41 to 50 years of age and rest 26.5% male respondents and 26% female respondents were above 51 years age.

Table-2.1.15- Gender * Qualifications Cross tabulation

		QUALIFICATIONS				Total
		B. Ed/ M.Ed	M.Tech/ M.Sc/M.C.A	UGC-NET	Ph.D.	
GENDER	Male	29.5%	30%	7%	33.5%	200 Respondents
	Female	23%	25%	7%	45%	200 Respondents

Interpretation - From the table it is clear that out of the total respondents (200 male respondents and 200 female respondents) 29.5% male respondents and 23% female were having B. Ed/ M.Ed as their highest qualification, followed by 30% male respondents and 25% female respondents who were having M.Tech/ M.Sc/M.C.A as their highest qualification,, another 7% male respondents and 7% female respondents were having UGC-NET as their highest qualification and rest 33.5% male respondents and 45% female having Ph.D. as their highest qualification

2.16 Summary of the Chapter

The chapter has presented a comprehensive summarization of the relevant academic content and knowledge present in published sources like books, journals, magazines etc relevant to the selected field of study. Review of literature has intensifies the views of research and imparts clarity to the line of thinking, corresponding to which research has been actively taken. One of the major contributions of this chapter is addition in knowledge related to attitude, components of attitude, key performance indicators, job performance and associated theories. It has helped to crystallize the topic, scale preparation, validation, and model preparation and finally assisted in analysis and interpretation. This chapter has also helped in identification of gaps and lacunae in the selected field of study and that has finally leaded to refinement of the study. Review of literature has prepared a conceptual and theoretical base to the selected field of research.

CHAPTER – 3

RESEARCH METHODOLOGY

CHAPTER – 3
RESEARCH METHODOLOGY

3.1 Introduction

Research methodology always signifies and explains the detailed systematic and scientific process of the conduction of research. This chapter explains the step wise detailed process used to realize the objectives related to the work. In the chapter a systematic and detailed method has been discussed related to the specific field of study considered. The methodology discussed and presented in the chapter has been used extensively as a code of conduct to guide the research towards a specific direction of realization of the objectives considered. The chapter discuss in detail the research design considered, the sampling technique and the sample size, sources of data, type of date, the data collection tools and the process of data analysis. The pilot study part and the focused group discussion (process details) were also discussed in details to present a clear picture of the methodology used.

The present work could be considered as a survey based descriptive work wherein self-administered questionnaire was used to collect the data related to attitude and job performance from 400 respondents. The respondents were male and female teachers working in higher educational institution of Delhi/ NCR. The higher education institutions were both government aided and self – financed. Secondary data has also been used and captured and after collection of the data the data was analyzed with the help of the appropriate statistical tools to arrive at a conclusion.

3.2 Statement of Problem

According to common masses the attitude and work commitment of employees lies at extreme ends either toward positive end or towards negative end and in general we use to classify people having positive attitude and active work commitment and having negative attitude and dormant work commitment. In practical it vibrates from situations to situations and at the end of a time spell its average is counted state whether an employee carries a positive or negative predisposition.

Education sector is collection of intellectual section of the society having creative mind and approach toward education, skills and development; hence to identify and study the impact of

attitude on job performance of employees (especially teaching community) in such dynamic environment is challenging. Some of the other major challenges that has added to the complexity of the task are

- Deviating objectives of educational institutes
- Changing revenue generating pattern,
- Changing education system and its interaction with foreign educational pattern,
- Dynamic nature of the legality and Increasing expectations of stakeholders

Educational institutes are experiencing conglomerate diversifications which has equally affected the psychology and motivational pattern of employees especially teachers. As per the reports of ministry of Human resource development and some independent agencies the quality of higher education and graduated in India both are continuously deteriorating, there could a lot of factors responsible and out of all the impact of psychological attribute of teachers like attitude on Job performance cannot be undermined. Hence a deep insight into the problem, a systematic investigation to the impact attitude on job performance of teachers is warrant.

Therefore the problem statement is titled as to assess the "**Impact of Attitude on Job performance of teachers in higher educational institutions"**

3.3 Research Questions

Bases on the literature survey in line with the research objectives the study attempts to find adequate and relevant answers to following

- Does the attitude of teachers influence their job performance in higher educational institutions?
- Is demographic attributes like age, gender, educational qualifications affects job performance?
- Is there any difference between attitude and job performance of teachers working in government funded and self-financed higher educational institutions?
- Does the components of attitude is having any relationship with job performance and the key performance areas in terms of which job performance is expressed

3.4 Research Objectives

The objectives of the research are as following

- To study the impact of attitude on job performance of teacher in higher educational institutions in NCR
- To analyze the impact of attitude on job performance of teacher in government funded and self-financed higher educational institutions in NCR
- To explore the impact of demographic factors like gender, age, qualifications and experience on job performance and attitude of teachers in higher education institutions in NCR

3.5 Hypotheses

3.5.1 Hypotheses related to Objective No - 1

- H_{1a} - There is significant impact of attitude on job performance of teacher in higher educational institutions.

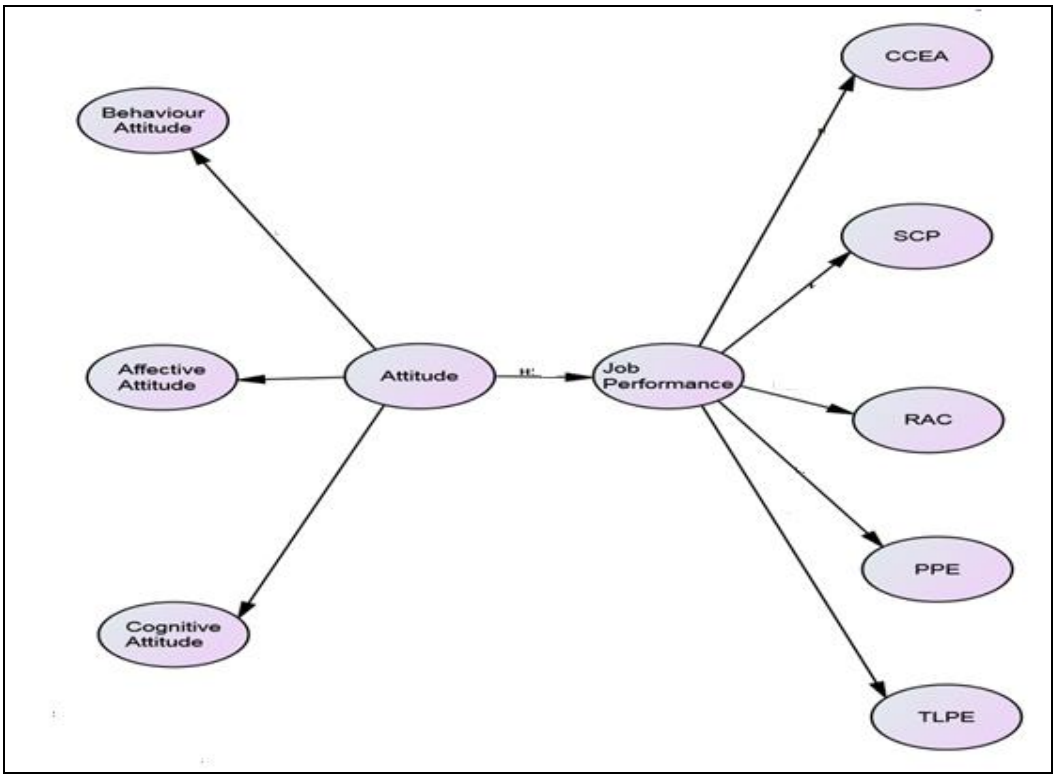

Fig-3.2.1 – Hypotheses related to Objective No – 1

3.5.2 Hypothesis related to Objective No.-2

- H_{2a} - There is significant difference in impact of attitude on job performance of teachers in government funded and self-financed higher education institutions in NCR.

3.5.3 Hypothesis related to Objective No.-3

- H_{3a} – There is a significant difference in job performance perception across gender in higher education institutions in NCR.
- H_{3b} - There is significant difference in job performance perception across age of teachers in higher education institutions in NCR.
- H_{3c} - There is significant difference in job performance perception across qualification of teachers in higher education institutions in NCR.
- H_{3d} - There is significant difference in experience on job performance of teachers in higher education institutions in NCR.
- H_{3e} - There is significant difference in attitude perception across gender of teachers in higher education institutions in NCR.
- H_{3f} - There is significant difference in attitude perception across age of teachers in higher education institutions in NCR.
- H_{3g} - There is significant difference in job performance perception across qualification of teachers in higher education institutions in NCR.
- $H3_{h}$ - There is significant difference in attitude perception across experience of teachers in higher education institutions in NCR.

3.6 Research Design

Research design is an integrated strategy chosen for effective and efficient completion of the research objectives. It addresses the research problem in a logical way and highlights the overall blueprint of the research.

In relation to the present study the concept of both exploratory and descriptive research design has been used. As stated the main objective of exploratory research design is to formulate the matter under investigation in a more précised form from operational point of view, the present work also attempts to identify and formulate the subject matter under study more precisely. The study also attempts to find out and manifest the correlation between attitude / components of

attitude and job performance of a teacher. The study is not only limited to the correlation but an attempt is also made to explore the underlying fact behind the correlation between components of attitude and Job performance of a teacher working in higher educational institutions in Delhi/ NCT. The present study also tries to explore the relationship between various variables like qualification, age, and experience of a teacher with the respective Job performance.

The present work also attempts to study the impact of attitude/ components of attitude on job performance of a teacher. The study is not restricted to the stated description but it also attempts to find out the reasons behind the observed facts and attitude of teachers and their prompt impact of job performance.

3.7 Stages of Research/ Research Methods

Research method highlight the techniques, process, flow and strategies that are used either to achieve objective/ objectives, add something to the existing body of knowledge, impart better understanding of a topic, to solve a problem or to discover new facts. Research method is an integrated path chosen by the researchers to conduct their work undertaken. (**Sileyew , 2019).** It could also be viewed as a systematic plan to conduct research pertaining to a selected topic. Research method is all about carrying out a systematic, objective and careful investigation conducted, to obtain facts that could be validated and after that conclusion could be drawn **(Williams, (2007).** Research method is a systematic method to explain a problem under consideration analytically **(Mishra, 2018).**

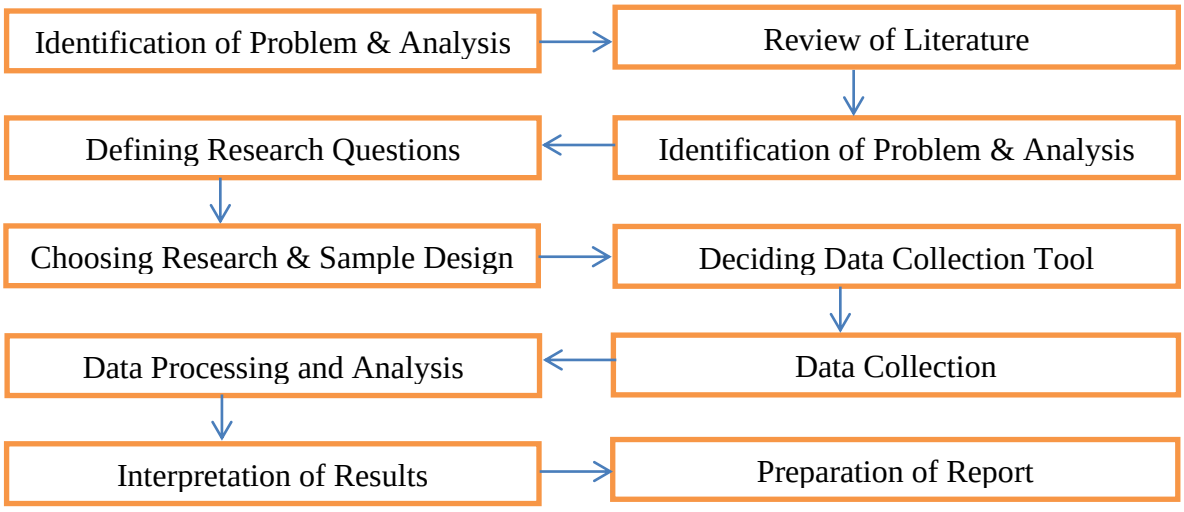

Fig-3.2.2-Research Process

3.8 Population and Sampling Frame

3.8.1 Population

In National Capital Territory of Delhi (NCT, Delhi), 5 Central Universities, 6 State Universities and 9 Deemed Universities are recognized by UGC.As per the AISHE Report (2015 – 2016), in NCT, Delhi the total number of registered colleges are 191 and the total no of teachers enrolled is 20,082

3.8.2 Sampling Frame

Sampling Frame can be treated as a source from which the sample is drawn. It is a specific list encompassing all the items in the population. It specifies a list of things or items from which researcher draws a sample for study **(Carl et al., 2003).** Sampling frame can also be understood as a specified database of respondents or a uniform source that acts as a source of sample and could provide necessary information pertaining to the study. Sampling frame provide basis for selecting a particular respondent of target population, who are being interviewed for data collection (Turner, 2003). The sampling frame used in the present study has been summarized as below

3.8.3 Sampling Techniques

Following steps were followed

- **Step-1**-First of all the geographical area of Government of NCT Delhi studied properly to find out the total number of higher educational institutions
- **Step-2**-An exhaustive list of higher educational institution in Delhi NCT was prepared.
- **Step-3**-List of higher educational institutions was then segregated on the basis of zones. (List of consolidated higher educational institution attached in annexure B)
- **Step-4-**With the help of simple random sampling the zone was selected for the purpose of data collection.
- **Step-5-**The process mentioned in step no 4 was repeated to select the higher educational institutions too.
- **Step-6-**The concept of convenience sampling was followed to select the departments (if in case the institution is having more than 1 department)
- **Step-7**- Again the concept of convenience sampling followed to select the respondents.

Table-3.1.1-Sampling Technique

Sl. No.	Selection of Units	Sampling Scheme
1	Field of Study	Convenience
2	Selection of Districts/ Zones	Simple Random
3	Selection of Higher Education Institutions	Simple Random
4	Selection of Departments	Convenience
5	Selection of Respondents	Convenience

3.9 Sample Size Determination

Samples are considered to be the complete representatives of the population exhibiting the characteristics of the population in all aspects. The sample size is calculated based on precision rate and confidence level. Sample is treated as a finite part of a targeted population, the properties/ characteristics of whom are to be studied a whole **(Webster & Burgess, 1948).** In contest to the present research work the precision rate was 5% at a confidence level of 95% .The formula for determining the sample size is mentioned below **(Kothari, 2014)**

$$n = z^2.p.q.N / e^2 (N-1) + z^2.p.q$$

Where,

- n = sample size
- N = Population Size
- z = Standard Variate at given confidence level. The value of z for confidence level of 95% is 1.96
- e = Precision or acceptable error. The value of 'e' is taken as .05 for this study.
- p = Sample proportion and q = 1- p

Here the population considered is 20,082 and at 95% confidence level, the sample size calculated was 377, however the response was taken from 400 respondents. As this sample size is more than 30, hence the distribution of mean approximates a normal distribution (**Soleman & Badar , 2011**). **(Ghasemi and Zahediasl, 2012)** and **(Rochon, Gondan and Kieser, 2012)** have also worked in same directions and have highlighted that a large sample size assumes the distribution of mean to be normal.

3.9.1 Sample Size from Different Strata

Table-3.1.2-Profile of institution and gender details

		GENDER		Total
		Male	Female	
POI	University	16	22	38
	Degree College	79	72	151
	Engineering College	25	19	44
	Management College	65	63	128
	Others	15	24	39
Total		200	200	400

Table-3.1.3-Nature of institution and gender details

		GENDER		Total
		Male	Female	
NOI	Government Aided	97	103	200
	Self Financed	103	97	200
Total		200	200	400

During collection of information, the purpose and objective of collecting data has been fully explained to the respondents along with the use of data strictly be used for academic purpose It was observed that most of the respondents were resistant in giving their personal details

3.9.2 Response Details

Table-3.1.4-Response details

Total Population	Total Questionnaires Distributed	Non-Response	Received filled in Questionnaire	Incomplete Responses	Responses considered for Analysis	Percentage
20,082	475	57	418	17	400	84.2%

Initially 475 questionnaire has been distributed out of that 418 filled questionnaire has been received and finally 400 questionnaire were considered for analysis purpose as they were properly filled and complete in all the aspects.

3.10 Data Collection Method

Data can be treated as a collection of meaningful and related objects, figures, events, symbols that are collected from identified sources for processing and interpretation o get some meaningful outcome. There are two sources of data collection

- Primary data sources
- Secondary data sources

First hand data collections through primary data sources are referred as primary data. The data that has been collected by some other person for some other purposes, if referred by researcher for current study/ research termed as secondary data

3.10.1 Data Sources

Both primary and secondary sources have been used to collect the data pertaining to the stated work.

- **Primary data** – Primary data has been gathered through self-administered questionnaire personal observations and personal interviews. The targeted respondents were the teachers (both male and female) working in higher educational institutions in Delhi/ NCR. After the data collection from the targeted respondents, it was classified, coded, tabulated and analyzed to arrive at a conclusion. To find out the probable reasons behind the findings focused group interview was also conducted to summarize the experiences of experts and to strengthen the linkages of experiences and discussions with the statistical findings.
- **Secondary data** – Pertaining to the present study the secondary data was collected through various sources. Some of the important sources are AISHE reports, Reports published by Ministry of HRD, Government of NCT Delhi and other relevant reports published by government and other non-government sources. Published research work of other researchers, articles, online sources, books, journals, periodicals, reports and other published work relevant and related to the topic considered were some of the secondary sources that were referred during the period of study. PBAS Performa of UGC, reports published by UGC were also considered extensively, Teachers Attitude Inventory developed by Dr. S. P. Ahluwalia and other slandered tools/ scale were also studies

extensively to collect secondary data for the stated research work. The AISHE were also referred along with other national and international research papers and reports.

3.10.2 Methodology of Data Collection

The methodology to collect primary data through self-administered questionnaire has followed a definite pattern. First of all the higher educational institution was visited and a preferable time slot was then asked from the respondents / departments and then the entire objective of the study was explained to them and after solving their queries (if any), the questionnaire was distributed to them and were finally collected. Some respondents took 30 to 50 minutes to fill the questionnaire but most of the respondents have asked the researcher to come on a convenient date to take back the filled questionnaire Follow up calls were also made to make the respondents fill the questionnaire. Some questionnaires were also distributed through Google sheets. Observations and personal interviews were also carried out to collect the relevant information and to understand the subject matter properly for better and precise results.

3.10.3 Experiences of Data Collections

Accurate, relevant, complete and quality response capturing as per the requirement of the topic of research is a tough task. The tools and techniques of data collection are more familiar but their correct implementation and right effort is a big question mark. Surprisingly the techniques, tendencies and process vibrated from plane to place and nation to nation. The mixture of process, attitude and effort in data collection those are prevalent in Developed nation id different from that of developing countries. Some of the core experiences that were experienced while collecting data are as following

- Most surprisingly some of the respondents considered the data collection part as an unproductive exercise as they told that the situations and conditions under which the data is collected vibrates from time to time so the relevance of data is a question mark
- Most of the respondents were very reluctant in providing their personal details, though they have filled the questionnaire but the columns of personal details were left vacant.
- The data collection process was very patience testing as to collect a complete filled questionnaire, many rounds of interactions, requests were have to be forwarded
- The data collection process is an exhaustive, expensive and time taking exercise.

- In data collection process reaching right person at right time under right situation is really a challenge
- Before proceeding the objective and purpose of the exercise has to be explained to the respondents then only they could take interest in providing the response.
- The waiting time to collect the data is really long
- Unwillingness, improper attitude and misjudgment of the respondents regarding the research work considered are some common hurdles in the path of justified data collection.

3.11 Questionnaire Design

The questionnaire is having two parts part – A and part – B , Part – A of the questionnaire intended to measure the " Attitude", Part – B of the questionnaire was intended to measure "Job Performance" of teachers working in higher educational institutions in NCT

Part A of the questionnaire includes seven Parameters adopted from **"Teacher`s Attitude Inventory"** developed by Dr. S. P. Ahluwalia (2006)

Questionnaire (Attitude)

Indirect statements were framed related to following 6 parameters

Table-3.1.5-Statements for measuring attitude

Sl. No.	Parameter	Total No of statements
1	Teaching profession	**7**
2	Class room Teaching	**7**
3	Student Centered Practices	**7**
4	Educational Process	**7**
5	Students	**5**
6	Teachers	**6**

Questionnaire (Job Performance)

Part B of the questionnaire includes three Parameters adopted from **UGC PBAS system** to evaluate performance of teachers. In addition to the above parameter prescribed by UGC, two more parameter were added (after pilot study)

- Student`s Performance and Student Centered Practices
- Punctuality and Professional Ethics

Therefore the total no of parameters for this part has become five as below

Table-3.1.6 – Statements for measuring job performance

Sl No	Parameters	Total No of Statements
1	Teaching, Learning Process and Evaluation)	8
2	Co- Curricular, Extension and Professional Development	7
3	Research and Academic Contributions	3
4	Student`s Performance and Student Centered Practices	8
5	Punctuality and professional ethics	3

The implementation of adapted instrument is carried out in four steps viz. Literature Survey, pre pilot study development, pilot study, post pilot study modification

- **First Stage** - The first stage demarks an extensive literature survey of the available published work, standard tools, and articlesto form a basic understanding of the items, variables to be included in the questionnaire. The research work/ published work of other researcher and extensive literature survey has given a fair idea to the researcher regarding the items/ variables to be concentrated upon in questionnaire for data collection purpose.. After the extensive literature survey "Teachers Attitude Inventory" developed by Dr. S.P. Ahluwalia was found to be one of the most suitable tools to measure attitude of teachers working in higher educational institution, hence it was decided to adopt the parameters from the scale. However the parameters related to measurement of job performance was adopted from the recommendations given by UGC in relation to PBAS.
- **Second Stage** - Pre pilot study has included interviews and preliminary discussion with senior academicians, faculty members, Administrators, retired principals to understand factors relevant in measurement of attitude and job performance of both teachers working in higher educational institutions (both government funded and self-financed structure). After the preliminary discussion and interview it was suggested that the similar sounding variables, items of similar sounding nature could be fused together to form a composite variables to reduce the number of items in the questionnaire and to make it more compact and attractive. It was also suggested that the scholar should add few more variables facilitating attitude to make the study more factual and real.
- **Third Stage** - The third stage demarks a pilot study and a study was conducted on 10% of the total sample size that is 40 to test the feasibility of the instrument considered and to

improve upon the research design. The outcomes of the pilot study were convincing but one of the important add upon received was the suggestion to be incorporated in part A of the questionnaire related to addition of the factors facilitating attitude and fusion of the similar sounding variable into composite variables. It was also suggested to the researcher to add one or 2 more parameters in part B of the questionnaire in addition to what UGC has recommended in UGC- PBAS. The recommendations forwarded by the participants were adopted and the tool was upgraded accordingly, however the parameters suggested by UGC in PBAS format were very exhaustive (After up gradation of the tool its reliability and validity was again tested)

- **Fourth Stage** - In post pilot study modification all the suggestions receive in the third stage were successfully incorporated. To ensure the content validity the questionnaire was again sent to the experts, senior academicians, retired principals and academic administrators to know whether the newly constructed tool measures the attributes truly that it intended to measure (Flynn et al., 1990). However no significant suggestions were made and after that the Cronbach`s alpha was calculated it was found to be 0.829 and hence it could be concluded that the tool that has been developed to measure Attitude (part A of the Questionnaire) and Job performance (Part B of the Questionnaire) is a standard tool and it could be used as a standard instrument to carry out further studies to realize he basic objectives considered in context to research.

3.12 Pilot Study

A pilot study is a preliminary study conducted or carried out on a small scale in order to calculate and record the different feasibility aspects of the study undertaken. The basic objective of the pilot study is to incorporate improvements in the existing research design, flow, feasibility, data collection tool and other related aspects. It actually demarks the rehearsal of the full scale study/ research work. The results, suggestions and comments that are received after pilot study served as a guide to improve upon the current work undertaken and ensures the speedy, methodological and swiftly delivery and completion of the research work. The pilot study helps in understanding of the research problem in more clear terms and may highlight the issues that are negatively affecting the success of the research work. It also provides a chance to improve feasibility of the

current study undertaken and improves upon the approach to the study and data collection tools/ methodology.

Pertaining to the current study too, a preliminary pilot study was conducted to know about the appropriateness of methodology, data collection tools and flow, feasibility of the study and to un-earthen those factors responsible for the swift, directional and speedy delivery of the work undertaken. The questionnaire was distributed to 40 respondents (10% of the total sample size considered for the study purpose) and their response was recorded properly to know that whether the tool considered for the research was carrying out the same task or some modification or changes are required. After pilot study following observations/ suggestions were recorded

- Scholar should try to short the length of the questionnaire as the adapted "Teachers Attitude Inventory" by Dr. S. P. Ahluwalia consists of more statements/ variables. Due to more no of statements the respondents subsequently loose interest in giving proper response or filling up of the questionnaire.
- Respondents/ Experts agree to the fact that few similar sounding variables are there they further suggested that they should be fused together to form a composite variable/ Statements
- Respondents/ Experts also suggested that the factors that facilitate attitude should also be added to make the questionnaire a complete tool to collected the intended data
- A few suggestions were also related to addition of few new statement/ Parameters in the questionnaire by the scholar to make it a bit innovative and new.
- Few experts also suggested that after incorporating all the suggestions the face and content validity of the questionnaire formed should also be judged.

3.13 Reframing and Description of Questionnaire

The essential suggestions received after pilot survey were incorporated and amendments were done especially related to the incorporation of the variables facilitation attitude, fusing the similar sounding variables into composite variables and shortening the length of the questionnaire. The questionnaire is having 2 parts part – A and part – B , Part – A of the questionnaire intended to measure the " Attitude", Part – B of the questionnaire was intended to measure "Job Performance" of teachers working in higher educational institutions in NCT. All together 67 question in totality was there in the questionnaire, out of that first 38 questions

mentioned in Part – A was related to measuring Attitude and the next 29 questions was intended to measure Job performance of teachers working in both Government aided and Self Financed higher educational institutions in Delhi/ NCT.

3.14 Scoring Pattern

Each item alternative is assigned a weight ranging from 5 (Strongly Agree) to 1 (strongly Disagree) for favourable items. In the case of unfavourable items range of weights is reversed i.e. from 1 (Strongly Agree) to 5 (Strongly Disagree). The attitude score of a subject is the sum total of item scores of all the six sub-scales. And the Job performance score is subjected to the sum total of all the 5 sub scales.

Table –3.1.7– Scoring Pattern

Sl. No	Score	Interpretation
1	1	Highly Disagree
2	2	Disagree
3	3	Neutral
4	4	Agree
5	5	Highly Agree

(Source- Sullivan, G.M. and Artino, A.R. (2013), Analyzing and Interpreting Data From Likert-Type Scales, Journal of Graduate Medical Education,pp- 541-542)

3.15 Statistical Tools and Techniques Used

One of the main objectives of the statistical analysis is to calculate the effect of explanatory variables on the dependent variables (**Cooley, 1978**). Statistical tools and techniques pertaining to the present study have been selected after careful analysis of the objectives, topics research problem and the nature of data. Statistical tools and techniques are always applied on the raw data collected to draw meaningful conclusion out of it. Statistical techniques are also applied to test the significance of scores without which the raw data do not carry and meaning as well as weight. Keeping in view the topic considered for study, the intended scale to measure attitude and job performance of the selected respondents, objective of the research and researcher, research problem formulated following statistical techniques has been extensively used in the present study.

3.15.1 Descriptive Statistics

For the purpose of organizing and summarization of data through measures like Central Tendency, variability etc. descriptive statistics are used. In this study the descriptive statistics like mean, standard deviations etc are used to study/express/ describe the data in more meaningful way related to the following

- Expressing demographic profile of respondents, profile of institution, nature of institutions etc.
- Describing variables used in attitudes and job performance
- Describing group statistics under objectives

Mean

It is one of the most commonly used central tendency measures. It is generally calculated bydividing the total sum of scores by number of observations. The concept of mean has been used in the study to make the meaningful interpretation out of the collected Data

Slandered Deviation

It is frequently used to compare the deviation of individual scores. It is calculated as the square root of the variance and is widely used to measure the dispersion or scores. The formula for slandered deviation is given below

3.15.2 Inferential Statistics

Inferential statistics are used for generalization purposes. It is used to generalize has to be made from a sample to populations. Hypothesis testing is an important part of inferential statistics and other inferential statistics tests are applied after this to generalize the result further. In relation to the present study following inferential statistical measures has been extensively used

- Karl Pearson's Coefficient of Correlation
- Multiple Regression
- t-test for Significance of Difference Between Means

Karl Pearson's Coefficient of Correlation

The correlation coefficient is used to describe the extent of relationship between two variables. It describes the extent to which two things are correlated **(Guilford and Fruchter, 1983).** It can also be explained as to what extent the variation would be caused in another variable as a result of variation in one variable. The most widely used correlation coefficient is Karl Pearson's Coefficient of Correlation. The correlation of coefficient vibrates from + 1 to – 1 , the earlier one denotes a perfect positive correlation and the later denoted perfectly negative correlation whereas 0 highlights no correlation amongst the variables. The concept of correlation has extensively been used in the current study. In this study, Karl Pearson's coefficient of correlation was used to study correlations between components of attitude and indicators of Job performance of teachers.

Regression Analysis

Regression analysis is an inferential statistical technique applied to study the variance proportion in the dependent variable as caused by the independent variable. It is also applied to study the combined effect of the independent variables taken together on independent variables. It helps in identifying the shared common variance between predictor and criterion variable and in this case the dependent variable is treated as the criterion variable and independent variable is treated as predictor variable. In this study, linear regression analysis was used to analyse the impact of components of attitude (Cognitive, behavioural and affective) on Job performance. The formula for multiple regressions is given below, it is just an extension to the linear regression

$Y = a + b1X1 + b2X2 + \ldots\ldots..$

Where

- Y = variable to be predicted
- a = constant or intercept
- b = slope of predictor
- X = scores of predictor

t-test for Significance of Difference Between Means

t – test is used as one of the important inferential statistical test to find out the difference between two means and to judge whether the difference is significant or not In this study, independent sample t-test was used to find out the difference between impact of attitude on job performance of teachers in government funded and self financed higher education institutions. It was also

used to describe the impact of demographic factors like gender, age, qualifications and experience on job performance

Factor Analysis

Factor analysis is considered as a powerful statistical tool when many variables are needed to be reduced to a smaller set describing the most of the variance of the original variables. In this test similar sounding variables are group together into a "Factor". In factor analysis following stages are there

- Extraction of Factors
- Rotation of Principal components

Factor analysis is used in the case where the objective is to reduce the number of variables and to group those into factors. In later stages the percentage of communalities are compared with the factor loading value against each variable, As a rule of thumb, variables against which both of the above values (communalities and factor loading value) are more than 0.5 are considered for further analysis **(Hair and Anderson, 2014).**

In this study the factor extraction for both part of questionnaire (Part A – Attitude and Part B-Job Performance) principal component analysis was used to identify the no of factor extracted. Furthermore in PCA the Eigen Value is used to determine the extraction of factors.

Path Analysis (Model Testing)

- **Convergent Validity -**This type of validity indicates a specific construct convergence, or those which share a high proportion of variance in common. It is one of the most important aspects that should be considered by the researcher while doing their research. Convergent validity validates the degree to which two measures, sharing the same concept, are related. When said this way, reliability is an indicator of convergent validity (Hair et. al., 2010). This type of validity can be analyzed through Confirmatory Factor Analysis, to guarantee that the factor loading of constructs is more than .50 (Hair et. al., 2006). For convergent validity to be established the value of CR > 0.7,AVE > 0.5 and CR > AVE.

- **Discriminant Validity -** It represents the extent to which a measure is distinct from other measures not concerned with the measurement of the same construct (Nunnally, 1970). Therefore, low correlations between variables reveal the existence of discriminate

validity. Discriminant validity can be evaluated by using the Average Variance Extracted (AVE) (Fronell and Larcker, 1981), for every construct that exceeds the squared correlations between the construct and any other constructs For discriminant validity AVE > MSV and AVE > ASV

Use of SPSS (Ver. 21)

Advanced statistical techniques were applied with help of IBM - SPSS (ver 21.) to the collect data to make meaningful interpretation intended to the topic and objective under study

Use of AMOS (Ver.22)

AMOS (Ver.22) was extensively used for SEM and path model tasks

3.16 Focused group discussion (Process Details)

Focused group discussion is a collection of experts/ people of homogenous nature in terms of background and experience who discuss a common topic of interest. It is a well-established part of qualitative research wherein the participants are asked about their core experiences, beliefs and opining about a common specific topic. It could also be treated as a form of predetermined structured interview headed or guided by a moderator. In focused group discussion the moderator use to ask specific questions to elicit response from the participants of focused group discussion **(Prasad, 2017)**

After the data collection and analysis, statistical conclusions have been to be drawn to find out the outcome of the study conducted. To find out reasons for Statistical conclusions (Derived after data analysis) a focused group discussion has also been conducted involving the experts from Academics and administration. The details of the focused group discussion are mentioned below

Strength of focused group - 9 members

Composition of the focused group

- 2 were (senior administrator)
- 1 (retired administrators)
- 2 Principals (1 from self-financed and another from Government Institution)
- 2 Retired teachers (one from government aided and another from self-financed higher educational institute)

- 2 Faculty members (one from government aided and another from self-financed higher educational institute).

Process Details

The focused group discussion was conducted using a specified methodology mentioned below and the scholar/ researcher was acting as the moderator of the group performing duties of organizing, asking questions, giving direction, eliciting and recording the responses. The focused group follows the following steps

- **Step – 1 –** In this step a reasonable no of questions was prepared related to the topics under study and statistical conclusions that were drawn after data analysis as the main objective was to know the reason behind the statistical conclusion drawn and to record the original response of respondents on the basis of their experiences, opinion and feel. The questions were divided into probe questions, follow up questions and exit questions.
- **Step – 2 –** In this steps the participants related to the same field were selected (homogenous nature and field) and were invited to a common place for focused group discussion and the topic of discussion was explained to them. The duration of the focused group discussion was of 1 hour.
- **Step – 3 –** In this step the topic was discussed and the moderator threw some topics related to the topic and statistical conclusions drawn to discuss. During the whole discussion the moderator was neutral and has performed his duties thereby guiding the discussions and recording the outcomes of the discussion. Some dormant participants were also elicited by soliciting them. The basic objective of this step was to probe deeper to the stated topic of research to draw better reasons behind the statistical conclusion drawn.
- **Step – 4** – The stage demarks the concluding the focused group discussion. In this step the moderator recited all the points that he has recorded and ask the participants to add something in case they want to add.

3.17 Summary of the Chapter

The chapter summarizes systematic plan to conduct research pertaining to a selected topic. It presents a systematic and careful investigation to obtain facts that could be validated. This chapter has explained the steps with the help of which the research problem was summarized and

the information was collected, analyzed to accomplish research objectives through judicious integrated approach. The research objectives and hypotheses were stated first and a detailed systematic plan to achieve the stated objectives was also discussed later in the chapter. The chapter has given fair idea about the research design followed, nature of data requirements and the corresponding sources of data collection. Knowledge of sampling and determination of sample size were integral part of it. The chapter has also explained the tools with the help of which data was collected and how the tool was constructed/ adapted and modified. The pilot study part and the focused group discussion (process details) were also discussed in details to present a clear picture of the methodology used. Summarization of the statistical tools used later in chapter no – 4 were also briefed. Altogether as outcome the chapter explained the a detailed plan including research design, research methodology, sampling plan, data collection tools and sources, Questionnaire design, pilot study and statistical tools to analyze the data.

CHAPTER - 4

DATA ANALYSIS AND INTERPRETATION

CHAPTER-4
DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

In this chapter data analysis was carried out. Different statistical tool was applied to the collected data and then the result was interpreted to arrive at conclusions. The chapter started with the test of Consistency and Reliability of the Questionnaire using Cronbach`s alpha for Attitude and Job performance, the value of alpha was also calculated for sub constructs of attitude and job performance. To reduce the no. of variables (Attitude and Job Performance) describing the most of the variance of the original variables Factor analysis was applied but before proceeding to factor analysis KMO and Bartlett's test of sphericity was applied to test proportion of variance among variables and to judge whether the data could be used for factor analysis or not. To find out the impact of independent variable (Attitude) on dependent variable (Job Performance structure equation modeling was used. The reliability and validity of the constructs were tested through CFA. Some other statistical test like t test, ANOVA was also used to compare the means of different groups

4.2 Internal Consistency and Reliability of the Questionnaire

The internal consistency and reliability of the questionnaire was examined through use of Cronbach`s Alpha. The test was conducted with the help of SPSS software.

Table-4.1.1-Reliability Statistics (Questionnaire)

Cronbach's Alpha	N of Items
.890	67

Interpretation – It is evident from the above table that the value of Cronbach`s alpha is 0.890, hence the questionnaire could be treated as an acceptable and reliable tool and therefore the data (Related to attitude and Job performance) collected could be treated as consistent and reliable**.**

4.2.1 Internal consistency and reliability separate sections of questionnaire

The internal consistency and reliability of Attitude and Job Performance was also examined separately through use of Cronbach`s Alpha. The test was conducted with the help of SPSS software

4.2.1.1 Internal consistency and reliability of Attitude

Table-4.1.2-Sample Table – Reliability of attitude

Sl No.	Construct	No of items	Cronbach`s alpha
1	Cognitive Attitude	14	0.758
2	Affective Attitude	13	0.718
3	Behavioural Attitude	11	0.796
4	Overall Attitude	38	0.851

Interpretation – The Cronbach`s alpha value above 0.7 is better and acceptable (Hair et al., 2006) and it is evident from the above table that the value of Cronbach`s alpha is acceptable is all the cases. For overall attitude the value of Cronbach`s alpha is 0.851, hence the questionnaire could be treated as an acceptable and reliable tool and therefore the data (related to attitude) collected could be treated as consistent and reliable.

4.2.1.2 Internal consistency and reliability of Job Performance

Table-4.1.3-Sample Table – Reliability for job performance

Sl No.	Construct	No of items	Cronbach`s alpha
1	Curricular, Extension and Professional Development Activities (CCEA)	7	0.856
2	Student`s Performance and Student Centered Practices (SCP)	8	0.868
3	Research and Academic Contributions (RAC)	3	0.721
4	Punctuality and professional ethics (PPE)	3	0.713
5	Teaching, Learning Process and Evaluation (TLPE)	8	0.743
6	Job Performance	29	0.801

Interpretation – The Cronbach`s alpha value above 0.7 is better and acceptable (Hair et al., 2006) and it is evident from the above table that the value of Cronbach`s alpha is acceptable is all the cases. For Job performance the value of Cronbach`s alpha is 0.801, hence the questionnaire could be treated as an acceptable and reliable tool and therefore the data (related Job Performance) collected could be treated as consistent and reliable.

4. 3 Exploratory Factor Analysis

Self-Administered questionnaire was sent to 400 respondents. Likert scale was the base of questionnaire. The respondents were asked to respond on a scale of 1 to 5, where 5 represent the highest score “Strongly Agree” and 1 represents the lowest score “Strongly Disagree”. Before proceeding to the EFA the analysis of descriptive statistics of Attitude and Job Performance was conducted. In descriptive statistics mean, standard deviations, variance was recorded.

Exploratory Factor Analysis:

Factor analysis is considered as a powerful statistical tool when many variables are needed to be reduced to a smaller set describing the most of the variance of the original variables. In this test similar sounding variables are group together into a “Factor”. In factor analysis following stages are there

- Extraction of Factors
- Rotation of Principal components

In this analysis the factor extraction for both part of questionnaire (Part A – Attitude and Part B- Job Performance) principal component analysis was used to identify the no of factor extracted. Furthermore in PCA the Eigen Value is used to determine the extraction of factors. Eigenvalue reflects the number of extracted factors whose sum should be equal to number of items which are subjected to factor analysis. In this case the objective is to reduce the number of variables and to group those into factors therefore those variable are retained whose Eigenvalue is equal to or more than 1.

In later stages the percentage of communalities are compared with the factor loading value against each variable, As a rule of thumb, variables against which both of the above values (communalities and factor loading value) are more than 0.5 are considered for further analysis. (Hair and Anderson, 2014). If in case any of the loading values is less than 0.5 (either in communalities or rotated component matrix) then that variable is not considered to be statistically significant and would be dropped from the further analysis.

4.3.1 Factor Analysis - Attitude

Kaiser-Meyer-Olkin (KMO) Test

KMO is a well known test applied to test proportion of variance among variables. In this case before applying factor analysis to the collected data KMO test was applied to checks sampling adequacy for each variable in the model. As reported the value of KMO lies between 0 to 1.

Table-4.1.4-KMO and Bartlett's Test (Attitude)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.859
Bartlett's Test of Sphericity	Approx. Chi-Square	11766.913
	df	703
	Sig.	.000

Interpretation – It is evident from the above table that the value of KMO is 0.859. Furthermore in Bartlett`s test of sphericity table the value of sig is less than 0.05, it signifies that the variables under consideration are significantly correlated and could be treated as adequate and factor analysis could further be applied to the collected data

Table-4.1.5-Communalities (Attitude)

	Initial	Extraction
V1	**1.000**	**.481**
V2	1.000	.805
V3	**1.000**	**.493**

V4	**1.000**	**.351**
V5	**1.000**	**.462**
V6	**1.000**	**.483**
V7	**1.000**	**.391**
V8	**1.000**	**.488**
V9	1.000	.817
V10	**1.000**	**.487**
V11	**1.000**	**.418**
V12	**1.000**	**.493**
V13	1.000	.681
V14	**1.000**	**.486**
V15	1.000	.875
V16	**1.000**	**.290**
V17	1.000	.804
V18	1.000	.679
V19	1.000	.741
V20	1.000	.833
V21	1.000	.676
V22	1.000	.802
V23	**1.000**	**.488**
V24	1.000	.841
V25	1.000	.637
V26	1.000	.659
V27	1.000	.758
V28	1.000	.851
V29	**1.000**	**.490**
V30	**1.000**	**.413**
V31	1.000	.794
V32	**1.000**	**.423**
V33	**1.000**	**.317**
V34	1.000	.724
V35	1.000	.812
V36	1.000	.488
V37	**1.000**	**.187**
V38	**1.000**	**.477**
Extraction Method: Principal Component Analysis.		

Interpretation - The above table of communalities explains how much of the variance in the variables has been accounted for, by the extracted factors. For instance, over 80.5% of the variance in variable V2 has been accounted for, by the extracted factors. Variables/ Statements against which the factor loading is more than 0.5 are considered for further analysis and values less than 0.5 were dropped from the analysis (Hair and Anderson, 2014). The items against which the loading value is less than 0.5 were further removed from the analysis.

Table-4.1.6 - Total variance explained (Attitude)

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.327	27.17	27.17	10.32	27.17	27.17	7.42	19.54	19.54
2	5.646	14.85	42.03	5.64	14.85	42.03	6.14	16.18	35.72
3	4.403	11.58	53.61	4.40	11.58	53.61	5.92	15.58	51.30
4	2.023	5.323	58.94	2.02	5.32	58.94	2.90	7.63	58.94
5	.991	2.60	61.55						
6	.980	2.58	64.13						
7	.966	2.54	66.67						
8	.924	2.43	69.10						
9	.877	2.30	71.41						
10	.826	2.17	73.58						
11	.779	2.05	75.63						
12	.773	2.03	77.67						
13	.694	1.82	79.49						
14	.657	1.72	81.22						
15	.631	1.66	82.88						
16	.599	1.57	84.46						
17	.567	1.49	85.95						
18	.522	1.37	87.33						
19	.476	1.25	88.58						
20	.445	1.17	89.75						
21	.426	1.12	90.87						
22	.421	1.10	91.98						
23	.384	1.01	92.99						
24	.357	.94	93.93						
25	.329	.86	94.79						
26	.304	.79	95.59						
27	.272	.71	96.31						
28	.223	.58	96.89						
29	.211	.55	97.45						
30	.168	.44	97.89						
31	.161	.42	98.32						
32	.144	.37	98.69						
33	.134	.35	99.05						
34	.099	.26	99.31						
35	.088	.23	99.54						
36	.070	.18	99.73						
37	.058	.15	99.88						
38	.045	.11	100.00						

Extraction Method: Principal Component Analysis.

Interpretation - It is clearly evident from the above table that four factors extracted together account for 58.942% of the total variance (information contained in the original 38 variables), while 41.058% of the information content is lost. However from further analysis 4th factor was dropped (Only 3 factors were considered) as the loading value of the items against 4th Factor was low.

Table-4.1.7- Rotated Component Matrix[a] (Attitude)

	Component			
	1	2	3	4
V1	**.677**	.128	-.012	.077
V2	**.861**	.146	-.034	-.202
V3	**.554**	-.055	.085	-.419
V4	.333	.157	.223	**.408**
V5	-.192	.226	-.071	**.607**
V6	.156	**.674**	.033	.056
V7	.203	**.570**	.007	.158
V8	**.688**	.064	-.006	.101
V9	-.098	.092	**.877**	-.174
V10	-.003	.079	**.662**	.208
V11	.103	.006	**.587**	.251
V12	.038	.026	**.654**	-.250
V13	.241	.100	**.659**	.422
V14	**.679**	.085	-.058	.120
V15	.200	**.854**	.197	.261
V16	.183	.242	.064	**.440**
V17	**.836**	.249	.114	.174
V18	.040	**.823**	.017	-.004
V19	**.766**	.301	-.008	.252
V20	**.757**	.071	.293	.411
V21	**.754**	-.062	.238	.216
V22	**.821**	.127	.201	.266
V23	-.147	**.508**	.100	.445
V24	.115	**.868**	.223	.156
V25	.215	**.740**	.117	.172
V26	**.715**	.207	-.217	-.241
V27	-.050	.135	**.850**	-.123
V28	.110	.160	**.839**	.332
V29	.005	-.020	**.683**	-.154
V30	.137	.081	**.618**	.075
V31	-.034	.248	**.854**	-.044
V32	.269	.230	-.043	**.544**
V33	**.548**	.043	.118	.035
V34	.005	**.840**	.136	.024
V35	.043	**.874**	.190	.100
V36	**.674**	.062	-.077	-.153
V37	.139	**.341**	-.013	.226
V38	.197	**.464**	-.035	.471

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 6 iterations.

Interpretation – The above table helps in identifying which variable is loaded o which factor and whether it is statically significant or not**.** In this analysis varimax rotation is applied and the above matrix is used to find variables which have high loading on one factor, but low loading on other factors. For example V2 is having factor loading 0.861 and it associated with Factor No – 1. The table further helps in grouping of variables to specific factor.

Interpretation of Factor Analysis for Attitude

Output of Factor Analysis is obtained by requesting Principal Components Analysis and specifying a rotation using varimax. It is clearly evident four factors extracted together account for 58.942% of the total variance (information contained in the original 38 variables), while 41.058% of the information content is lost. Factor 4 has low loading value, therefore it has been dropped from the analysis. As for the factor analysis result only 3 factors will be applicable for further analysis and after extracting within 18 variables are found to be of statistical significant.

- As evident from Table no.- 4.1.15 the rotated component matrix, the variables V2,V17,V22,V19,V20,V21 and V26 have high loading of 0.861, 0.836, 0.821, 0.766, 0.757, 0.754 and 0.715 respectively on factor 1. After capturing the original essence and sense of original variables mentioned above factor 1 could be named as 'Behavioural Attitude.
- As as shown in Table no. - 4.1.15, down the column for factor 2, and find that variables V35,V24,V15,V34,V18 and V25 have a high loading of 0.874, 0.868, 0.854, 0.840, 0.823 and 0.740 respectively. This indicates that factor 2 is a combination of the above 6 variables and could be named as 'Affective Attitude'.
- As evident from Table no. 4.1.15, down the column for factor 3, and find that variables V9,V31,V27,V28,V13 have a high loading of 0.877, 0.854, 0.850, 0.839 and 0.659 respectively on factor 3. This indicates that factor 3 is a combination of the above 5 variables and could be named as 'Cognitive Attitude.

Out of 38 variables only 18 variables have extracted which are statistically significant and will account for further analysis. The analysis of data is expressed below

Table-4.1.8 - Variable Extracted (Attitude)

Factors	Factor – 1 – Behavioural Attitude (BA)	Factor – 2 – Affective Attitude (AA)	Factor – 3 – Cognitive Attitude (CA)
Variables → ↓	V2	V35	V9
	V17	V24	V31
	V22	V15	V27
	V19	V34	V28
	V20	V18	V13
	V21	V25	
	V26		

Table-4.1.9-Dimension wise descriptive statistics (Attitude)

Factor – 1			
	Mean	Std. Deviation	Variance
I give proper importance to Students behavior and aptitude and I always try to clarify their doubts.	1.98	1.00	1.00
I respect everybody and pays attention to students.	4.38	.79	.62
A teacher's job is primarily of teachings and explaining the subject matter to students hence they should not be strict in dealing with them	3.30	.64	.42
I pay due attention to the special abilities of students and always try to teach as per their abilities so that all of them can understand what I teach	4.36	.8	.64
I always respect the student's right to express-disagreement with what the teacher says.	4.33	.91	.82
I will not take up any other job except teaching, as it is very stimulating profession	4.40	.65	.42
I always keep students informed of their progress and do what they say.	4.51	.55	.30
Factor - 2			
No occupation is better than the teaching profession as it develops personality and character	4.25	.79	.62
Warm and Friendly relationship between the teacher and the students is essential for learning	4.15	.83	.70
I feel that teachers are not free to express their views and are held responsible for failure of students	3.19	.83	.69
Different activities performed by the students should not have a place in their final Evaluation as they can do anything to get through Examination	4.28	.71	.51
I take pride in telling that I am a teacher and I am having full command on the subject that I teach.	3.25	1.60	2.5
I feel that bright and talented students often suffer in class-room teaching as principle of "learning by doing" cannot be implemented in class room	4.20	.75	.57
Factor – 3			
I believe that Students are generally sincere and they learn best by doing.	4.26	.90	.82

Class-room teaching strengthens the desire of Students to learn as they gain a lot through the revision of the lessons	4.27	.71	.50
Teaching practices needed to be innovative to make the class room teaching lively	4.25	.93	.87
Teachers should make lesson interesting for students	3.04	1.02	1.04
Teachers are the leaders who make the students learn more though love than by punishment	2.79	.54	.29

4.3.2 Factor Analysis– Job Performance

Table-4.1.10- Kaiser-Meyer-Olkin (KMO) Test (Job Performance)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.854
Bartlett's Test of Sphericity	Approx. Chi-Square	6488.195
	df	406
	Sig.	.000

Interpretation – It is evident from the above table that the value of KMO is 0.854. Furthermore in Bartlett`s test of sphericity table the value of sig is less than 0.05, it signifies that the variables under consideration are significantly correlated and could be treated as adequate and factor analysis could further be applied to the collected data

Table-4.1.11-Communalities (Job Performance)

	Initial	Extraction
VAR1	1.000	.763
VAR2	1.000	.778
VAR3	1.000	.807
VAR4	1.000	.777
VAR5	1.000	.732
VAR6	**1.000**	**.494**
VAR7	**1.000**	**.487**
VAR8	**1.000**	**.305**
VAR9	1.000	.798
VAR10	1.000	.836
VAR11	1.000	.841
VAR12	1.000	.702
VAR13	1.000	.763
VAR14	1.000	.699
VAR15	**1.000**	**.484**
VAR16	1.000	.721

VAR17	**1.000**	**.477**
VAR18	**1.000**	**.490**
VAR19	**1.000**	**.357**
VAR20	1.000	.726
VAR21	1.000	.521
VAR22	**1.000**	**.490**
VAR23	**1.000**	**.482**
VAR24	**1.000**	**.419**
VAR25	**1.000**	**.475**
VAR26	**1.000**	**.489**
VAR27	1.000	.687
VAR28	**1.000**	**.476**
VAR29	1.000	.560

Extraction Method: Principal Component Analysis.

Interpretation - The above table of communalities explains how much of the variance in the variables has been accounted for, by the extracted factors. For instance, over 77.8% of the variance in variable Q2 has been accounted for, by the extracted factors. Variables/ Statements against which the factor loading is more than 0.5 are considered for further analysis and values less than 0.5 were dropped from the analysis (Hair and Anderson, 2014). The items against which the loading value is less than 0.5 were further removed from the analysis.

Table-4.1.12-Total variance explained (Job performance)

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.00	20.71	20.71	6.00	20.71	20.71	5.31	18.34	18.34
2	5.68	19.60	40.32	5.68	19.60	40.32	4.67	16.12	34.46
3	2.47	8.54	48.87	2.47	8.54	48.87	3.02	10.4	44.88
4	2.05	7.08	55.95	2.05	7.08	55.95	2.37	8.18	53.07
5	1.40	4.85	60.81	1.40	4.85	60.81	2.24	7.73	60.81
6	.96	3.31	64.12						
7	.93	3.21	67.33						
8	.87	3.01	70.35						
9	.81	2.81	73.16						
10	.74	2.57	75.73						
11	.66	2.30	78.03						
12	.65	2.24	80.28						
13	.60	2.09	82.37						
14	.58	2.00	84.38						
15	.54	1.87	86.25						
16	.49	1.71	87.97						
17	.46	1.61	89.58						
18	.41	1.42	91.01						
19	.38	1.33	92.34						
20	.35	1.21	93.55						
21	.31	1.10	94.65						
22	.27	.960	95.61						
23	.26	.919	96.53						
24	.22	.779	97.31						
25	.19	.674	97.98						
26	.17	.593	98.58						
27	.17	.592	99.17						
28	.13	.464	99.63						
29	.10	.365	100.00						
Extraction Method: Principal Component Analysis.									

Interpretation - It is clearly evident from the table that five factors extracted together account for 60.810% of the total variance (information contained in the original 38 variables), while 39.19% of the information content is lost. Items against which the factor loading value is less than 0.5 were dropped from the analysis (Hair and Anderson, 2014).

Table-4.1.13-Rotated Component Matrix[a] (Job Performance)

	Component				
	1	2	3	4	5
VAR20	**.845**	.047	-.075	-.049	.045
VAR16	**.803**	.071	-.116	-.039	.237
VAR22	**.692**	.066	-.063	.000	.059
VAR17	**.688**	.037	-.042	-.014	.008
VAR21	**.687**	.016	-.087	.072	-.187
VAR18	**.687**	.083	-.067	-.069	.047
VAR25	**.685**	.049	.029	.037	.038
VAR23	**.682**	-.009	-.039	.028	.118
VAR24	**.628**	.035	.031	-.125	.082
VAR19	**.565**	-.002	-.035	-.094	.166
VAR3	.255	**.852**	.022	.096	.079
VAR4	.032	**.851**	.152	.168	.004
VAR1	.244	**.838**	-.030	.028	.010
VAR2	.254	**.835**	.036	.113	.055
VAR5	-.104	**.821**	.138	.156	-.059
VAR28	-.064	**.675**	.101	.074	-.010
VAR6	-.105	**.669**	.150	.093	.059
VAR13	-.033	.102	**.849**	.172	.014
VAR14	-.016	.113	**.820**	.116	-.006
VAR12	.106	.178	**.802**	.122	.027
VAR15	-.155	.025	**.663**	.141	-.004
VAR8	-.210	.076	**.481**	.093	-.123
VAR11	-.081	.183	.280	**.850**	-.008
VAR10	-.033	.248	.261	**.840**	.002
VAR9	-.070	.248	.208	**.830**	.005
VAR27	.147	.064	-.028	.076	**.809**
VAR29	-.110	.030	-.016	.101	**.732**
VAR26	.172	-.015	-.069	-.034	**.673**
VAR7	.208	.020	.038	-.156	**.646**

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

Interpretation – The above table helps in identifying which variable is loaded o which factor and whether it is statically significant or not. In this analysis varimax rotation is applied and the above matrix is used to find variables which have high loading on one factor, but low loading on other factors. For example VAR16 is having factor loading 0.803 and it associated with Factor No – 1. The table further helps in grouping of variables to specific factor.

Interpretation of Factor Analysis for Job Performance

Output of Factor Analysis is obtained by requesting Principal Components Analysis and specifying a rotation using varimax. It is clearly evident that five factors extracted together account for 60.810 % of the total variance (information contained in the original 29 variables), while 39.19% of the information content is lost. For further analysis and after extracting within 18 variables are found to be of statistical significant.

As evident from Table no – 4.1.20, the rotated component matrix, the variables VAR20, VAR16 and VAR21 have high loading of 0.845, 0.803 and 0.687 respectively on factor 1. After capturing the original essence and sense of original variables mentioned above factor 1 could be named as 'Co- Curricular, Extension and Professional Development Activities (CCEA).

As shown in Table no - 4.1.20, down the column for factor 2, and find that variables VAR1, VAR2, VAR3, VAR4, and VAR5 have a high loading of 0.838, 0.835, 0.852, 0.851 and 0.802 respectively. This indicates that factor 2 is a combination of the above 5 variables and could be named as 'Student`s Performance and Student Centered Practices (SCP).

As evident from Table no-4.1.20, down the column for factor 3, and find that variable VAR12, VAR13 and VAR14 have a high loading of 0.802, 0.849 and 0.820 respectively on factor 3. This indicates that factor 3 is a combination of the above 3 variables and could be named as 'Research and Academic Contributions (RAC)'

As evident from Table no- 4.1.20, down the column for factor 4, and find that variables VAR9, VAR10 and VAR11 have a high loading of 0.830, 0.840 and 0.850 respectively on factor 4. This indicates that factor 4 is a combination of the above 3 variables and could be named as 'Punctuality and professional ethics (PPE)'.

As evident from Table no - 4.1.20, down the column for factor 5, and find that VAR29 and VAR29 have a high loading of 0.809 and 0.732 respectively on factor 5. This indicates that factor 5 is a combination of the above 2 variables and could be named as 'Teaching, Learning Process and Evaluation (TLPE)

Table –4.1.14– Variable extracted (Job Performance)

Factors →	Factor – 1 - Co-Curricular, Extension and Professional Development Activities (CCEA)	Factor – 2 - Student`s Performance and Student Centered Practices (SCP)	Factor – 3 - Research and Academic Contributions (RAC)	Factor -4 - Punctuality and professional ethics (PPE)	Factor -5 - Teaching, Learning Process and Evaluation (TLPE)
Variables ↓	VAR20	VAR1	VAR12	VAR9	VAR27
	VAR16	VAR2	VAR13	VAR10	VAR29
	VAR21	VAR3	VAR14	VAR11	
		VAR4			
		VAR5			

Table-4.1.15-Dimension wise Descriptive Statistics (Job Performance)

Factor – 1			
	Mean	Std. Deviation	Variance
I always participate and conducts/ assist in conduction of National/ International Seminars/ Conferences/ Workshops	4.28	.82	.68
I generally accept additional academic administrative responsibilities other than teaching, as they increase the versatility of mine.	4.15	.82	.67
I attend short term training and refresher courses regularly to ensure my professional development.	4.04	.96	.92
Factor – 2			
I am rated to be the best teacher by students in our class.	3.92	.83	.69
All my students perform very well in the examination because they understood what I taught in the class.	3.88	.82	.67
All of my students know how to practice what I taught in the class.	3.89	.82	.68
For the betterment of my students I counsel their parents, if needed	3.95	.71	.50
My student likes my class because they find them interesting.	4.04	.70	.49
Factor – 3			
I can guide projects at undergraduate/ Post graduate levels/ Ph.D. Level/ Post Doctoral level	2.97	.93	.87
I read research papers and get updated with the latest in my field	3.05	.96	.92
I deliver at least one lecture/talk in conferences/ seminars every semester.	2.90	.90	.81

Factor – 4			
I follow professional codes of a teacher and mentor my students to develop their own opinion and line of thinking	3.55	.91	.84
I always come to Institution/ college on time	3.74	.83	.69
I am always fulfilling my assigned duties and activities on time.	3.52	.93	.87
Factor – 5			
I always participation in examination, paper setting and evaluations, because it makes me more versatile.	3.81	.78	.61
I always organize remedial classes for students.	3.92	.70	.49

4.4 Confirmatory Factor Analysis (CFA) Model – Attitude

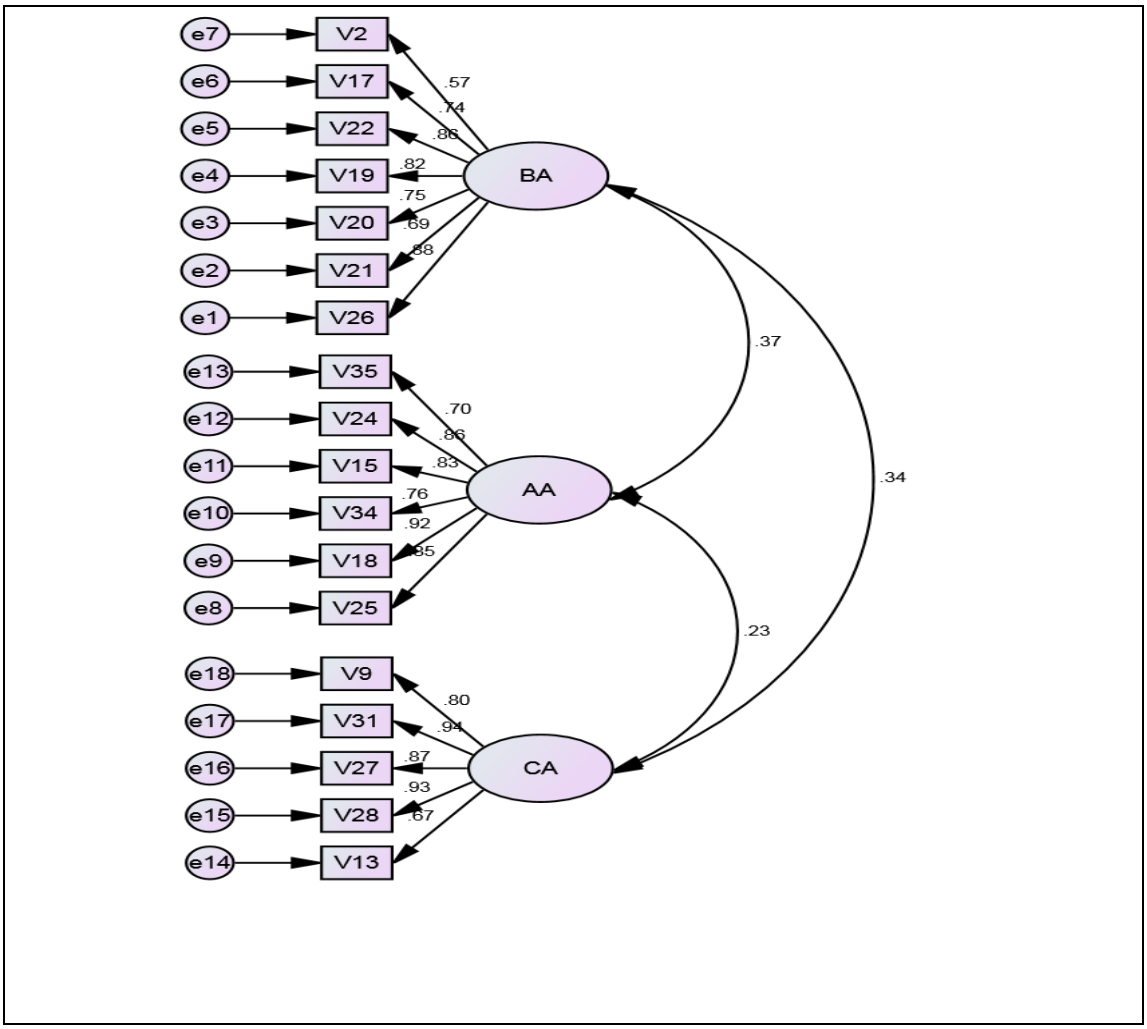

Fig.-4.2.1-CFA Model (Attitude)

Notes for Model (Default model)

Computation of degrees of freedom (Default model)

Number of distinct sample moments: 171

Number of distinct parameters to be estimated: 39

Degrees of freedom (171 - 39): 132

Result (Default model)

Minimum was achieved

Chi-square = 384.069

Degrees of freedom = 132

Probability level = .000

Table-4.1.16-Regression Weights: Default model (Attitude)

			Estimate	S.E.	C.R.	P	Label
V26	<---	BA	1.000				
V21	<---	BA	.741	.046	15.985	***	
V20	<---	BA	.785	.043	18.217	***	
V19	<---	BA	.857	.041	21.103	***	
V22	<---	BA	.960	.042	22.786	***	
V17	<---	BA	.795	.045	17.649	***	
V2	<---	BA	.566	.046	12.283	***	
V25	<---	AA	1.000				
V18	<---	AA	1.048	.042	25.058	***	
V34	<---	AA	1.010	.056	18.095	***	
V15	<---	AA	1.136	.055	20.721	***	
V24	<---	AA	1.098	.050	21.974	***	
V35	<---	AA	.845	.053	15.968	***	
V13	<---	CA	1.000				
V28	<---	CA	1.401	.086	16.248	***	
V27	<---	CA	1.305	.084	15.485	***	
V31	<---	CA	1.370	.083	16.449	***	
V9	<---	CA	1.206	.084	14.345	***	

Table-4.1.17-Standardized Regression Weights: Default model (Attitude)

			Estimate
V26	<---	BA	.879
V21	<---	BA	.689
V20	<---	BA	.750
V19	<---	BA	.820
V22	<---	BA	.856
V17	<---	BA	.735
V2	<---	BA	.567
V25	<---	AA	.849
V18	<---	AA	.922
V34	<---	AA	.759
V15	<---	AA	.826
V24	<---	AA	.855
V35	<---	AA	.696
V13	<---	CA	.665
V28	<---	CA	.927
V27	<---	CA	.873
V31	<---	CA	.943
V9	<---	CA	.797

Table-4.1.18- Covariances: Default mode (Attitude)

			Estimate	S.E.	C.R.	P	Label
BA	<-->	AA	.219	.035	6.272	***	
BA	<-->	CA	.136	.024	5.719	***	
AA	<-->	CA	.077	.019	4.090	***	

Table-4.1.19-Correlations: Default model (Attitude)

			Estimate
BA	<-->	AA	.367
BA	<-->	CA	.343
AA	<-->	CA	.230

Model Fit Summary (Attitude)

Table – 4.1.20- CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	39	384.069	132	.000	2.910
Saturated model	171	.000	0		
Independence model	18	5467.856	153	.000	35.738

Table – 4.1.21 - RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.032	.902	.873	.696
Saturated model	.000	1.000		
Independence model	.277	.269	.183	.241

Table – 4.1.22- Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.930	.919	.953	.945	.953
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Table – 4.1.23- RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.069	.061	.077	.000
Independence model	.295	.288	.302	.000

Table-4.1.24-Model Fit Indices (CFA of Attitude)

Fit Measure	Good Fit		Excellent Fit		Goodness fit	Remarks
					Indices (Measurement Model)	
χ^2/df (CMIN/df)	$0 \leq \chi^2/df \leq 2$		$2 < \chi^2/df \leq 3$		2.910	Excellent Fit
RMSEA	$0 \leq$ RMSEA ≤ 0.05		$0.05 <$ RMSEA ≤ 0.08		0.069	Excellent Fit
P Value for Test of Close Fit (RMSEA <0.05)	$0.10 < p \leq 1.00$ (RMSEA < 0.05)		$0.05 \leq p \leq 0.10$ (RMSEA < 0.05)		0.077	Excellent Fit
NFI	0.95	$\leq$ NFI $\leq$ 1.00	0.90	$\leq$ NFI < 0.95	0.930	Excellent Fit
CFI	0.97	$\leq$ CFI $\leq$ 1.00	0.90	$\leq$ CFI < 0.95	0.953	Excellent Fit
GFI	0.95	$\leq$ GFI $\leq$ 1.00	0.90	$\leq$ GFI < 0.95	0.902	Excellent Fit
AGFI	0.95	$\leq$ AGFI $\leq$ 1.00	0.90	$\leq$ AGFI < 0.95	0.873	Good Fit

Interpretation - It was observed from the above table that the result of CFA was excellent (χ2/df or CMIN/df = 2.910, GFI = 0.902, AGFI = 0.873, CFI = 0.953, NFI = 0.930 and RMSEA = 0.069), the above figure assures the model fit of attitude and also signifies its statistical significance (Forza and Filippini (1998),Greenspoon and Saklofske (1998)

Establishment of Convergent and Discriminant validity

Convergent Validity - Convergent validity validates the degree to which two measures, sharing the same concept, are related. This type of validity can be analyzed through Confirmatory Factor Analysis, to guarantee that the factor loading of constructs is more than .50 (Hair et. al., 2006). For convergent validity to be established the value of CR > 0.7,AVE > 0.5 and CR > AVE.

Discriminant Validity - It represents the extent to which a measure is distinct from other measures not concerned with the measurement of the same construct (Nunnally, 1970). Discriminant validity can be evaluated by using the Average Variance Extracted (AVE) (Fronell and Larcker, 1981), For discriminant validity AVE > MSV and AVE > ASV

Table-4.1.25-Calculations of AVE value for Attitude Model

Indicator Variables		Latent Variables	Standerdized Loadings	Square of Standerdized Loadings	Sum of Square of Standerdized Loadings	No. of Indicators	AVE	Square Root of AVE
V26	<---	BA	0.87	0.77	4.07	7	0.58	0.76
V21	<---	BA	0.68	0.47				
V20	<---	BA	0.75	0.56				
V19	<---	BA	0.82	0.67				
V22	<---	BA	0.85	0.73				
V17	<---	BA	0.73	0.54				
V2	<---	BA	0.56	0.32				
V25	<---	AA	0.84	0.72	4.04	6	0.67	0.82
V18	<---	AA	0.92	0.85				
V34	<---	AA	0.75	0.57				
V15	<---	AA	0.82	0.68				
V24	<---	AA	0.85	0.73				
V35	<---	AA	0.69	0.48				
V13	<---	CA	0.66	0.44	3.58	5	0.71	0.84
V28	<---	CA	0.92	0.85				
V27	<---	CA	0.87	0.76				
V31	<---	CA	0.94	0.88				
V9	<---	CA	0.79	0.63				

Interpretation - The standardized loadings and the AVE and Square Root of AVE were calculated and it was found that the value of Square Root of AVE is more than square of standardized loadings also the value of AVE is greater than 0.5 in all the cases, therefore it can be inferred that the constructs have convergent validity.

Table – 4.1.26– Calculation of CR, MSV and AVE for Attitude (using Gaskin`s formula)

	CR	AVE	MSV	MaxR(H)	AA	BA	CA
AA	0.925	0.674	0.135	0.939	0.821		
BA	0.906	0.582	0.135	0.923	0.367	0.763	
CA	0.926	0.718	0.118	0.952	0.230	0.343	0.847

Interpretation - In the above table the value of CR, AVE and MSV has been calculated and it was recorded that the value of CR is above 0.7, value of AVE is more that 0.5 as well as the value of CR is more than that of AVE in all the cases hence the construct validity of the model is established. Furthermore the value of AVE is greater than MSV is all the cases and the discriminant validity is hence established.

4.5 Confirmatory Factor Analysis (CFA) Model - Job Performance

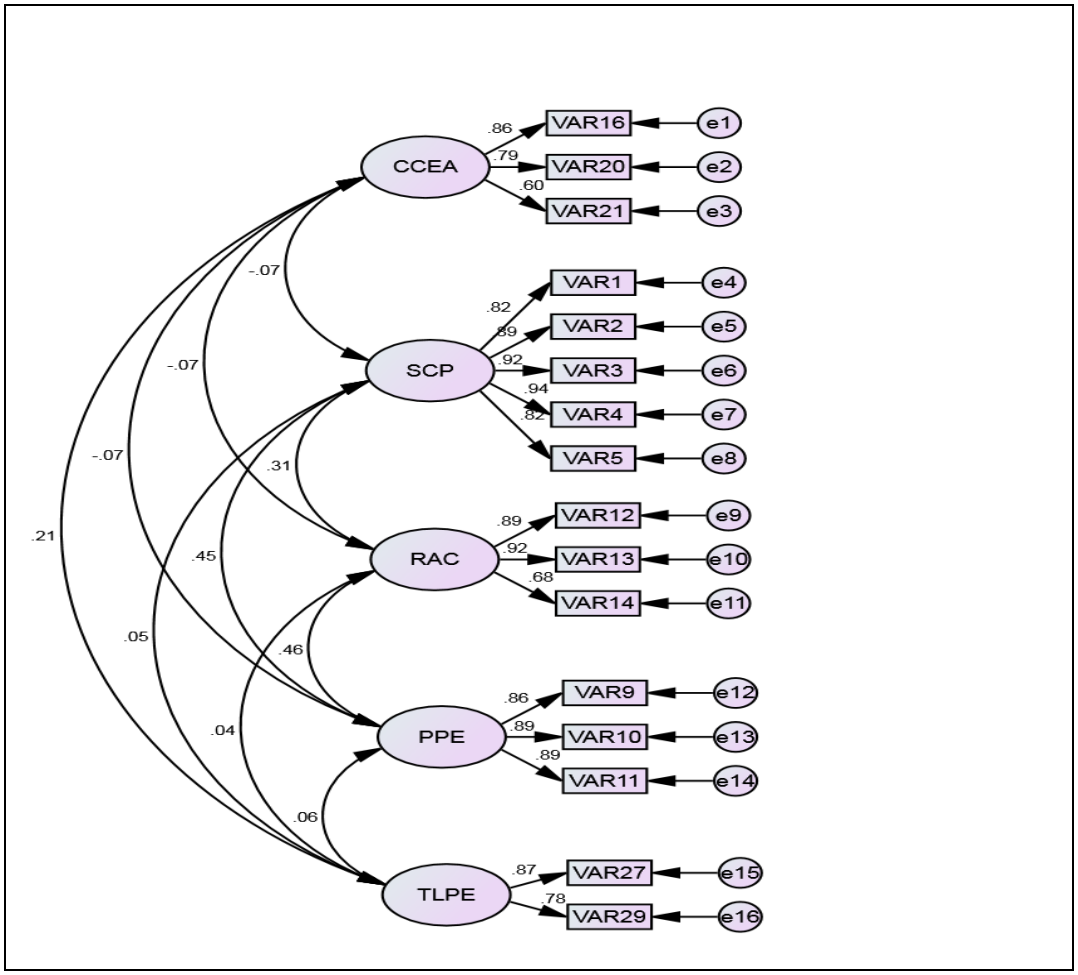

Fig.-4.2.2-CFA model of Job performance

Notes for Model (Default model)

Computation of degrees of freedom (Default model)

Number of distinct sample moments: 136

Number of distinct parameters to be estimated: 42

Degrees of freedom (136 - 42): 94

Result (Default model)

Minimum was achieved

Chi-square = 248.140

Degrees of freedom = 94

Probability level = .000

Table-4.1.27-Regression Weights: Default model (Job Performance)

			Estimate	S.E.	C.R.	P	Label
VAR20	<---	CCEA	1.000				
VAR16	<---	CCEA	1.031	.081	12.703	***	
VAR21	<---	CCEA	.659	.059	11.212	***	
VAR1	<---	SCP	1.000				
VAR2	<---	SCP	1.083	.049	22.197	***	
VAR3	<---	SCP	1.133	.048	23.477	***	
VAR4	<---	SCP	1.109	.046	23.938	***	
VAR5	<---	SCP	.987	.051	19.483	***	
VAR12	<---	RAC	1.000				
VAR13	<---	RAC	1.052	.048	21.701	***	
VAR14	<---	RAC	.730	.047	15.547	***	
VAR9	<---	PPE	1.000				
VAR10	<---	PPE	.953	.042	22.955	***	
VAR11	<---	PPE	1.050	.046	22.733	***	
VAR27	<---	TLPE	1.000				
VAR29	<---	TLPE	.841	.195	4.313	***	

Table-4.1.28-Standardized Regression Weights: Default model (Job Performance)

			Estimate
VAR20	<---	CCEA	.792
VAR16	<---	CCEA	.863
VAR21	<---	CCEA	.599
VAR1	<---	SCP	.815
VAR2	<---	SCP	.892
VAR3	<---	SCP	.924
VAR4	<---	SCP	.935
VAR5	<---	SCP	.820
VAR12	<---	RAC	.887
VAR13	<---	RAC	.920

			Estimate
VAR14	<---	RAC	.683
VAR9	<---	PPE	.859
VAR10	<---	PPE	.893
VAR11	<---	PPE	.886
VAR27	<---	TLPE	.873
VAR29	<---	TLPE	.780

Table-4.1.29-Correlations: Default model (Job Performance)

			Estimate
CCEA	<-->	SCP	-.071
CCEA	<-->	RAC	-.070
CCEA	<-->	PPE	-.070
CCEA	<-->	TLPE	.214
SCP	<-->	RAC	.307
SCP	<-->	PPE	.447
SCP	<-->	TLPE	.053
RAC	<-->	PPE	.462
RAC	<-->	TLPE	.036
PPE	<-->	TLPE	.057

Model Fit Summary (Job Performance)

Table-4.1.30-CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	42	248.140	94	.000	2.640
Saturated model	136	.000	0		
Independence model	16	4417.042	120	.000	36.809

Table-4.1.31-RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.021	.929	.898	.642
Saturated model	.000	1.000		
Independence model	.209	.353	.266	.311

Table-4.1.32-Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.944	.928	.964	.954	.964
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Table-4.1.33- Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.783	.739	.755
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

Table-4.1.34-NCP

Model	NCP	LO 90	HI 90
Default model	154.140	111.268	204.683
Saturated model	.000	.000	.000
Independence model	4297.042	4083.434	4517.903

Table-4.1.35-FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	.622	.386	.279	.513
Saturated model	.000	.000	.000	.000
Independence model	11.070	10.770	10.234	11.323

Table-4.1.36-RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.064	.054	.074	.009
Independence model	.300	.292	.307	.000

Table-4.1.37-AIC

Model	AIC	BCC	BIC	CAIC
Default model	332.140	335.878	499.782	541.782
Saturated model	272.000	284.105	814.839	950.839
Independence model	4449.042	4450.466	4512.905	4528.905

Table-4.1.38-ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	.832	.725	.959	.842
Saturated model	.682	.682	.682	.712
Independence model	11.150	10.615	11.704	11.154

Table-4.1.39-HOELTER

Model	HOELTER .05	HOELTER .01
Default model	190	208
Independence model	14	15

Table-4.1.40- Model Fit Indices (Job Performance)

Fit Measure	Good Fit		Excellent Fit		Goodness fit	Remarks
					Indices (Measurement Model)	
χ^2/df (CMIN/df)	$0 \leq \chi^2/df \leq 2$		$2 < \chi^2/df \leq 3$		2.640	Excellent Fit
RMSEA	$0 \leq$ RMSEA ≤ 0.05		$0.05 <$ RMSEA ≤ 0.08		0.064	Excellent Fit
P Value for Test of Close Fit (RMSEA <0.05)	$0.10 < p \leq 1.00$ (RMSEA < 0.05)		$0.05 \leq p \leq 0.10$ (RMSEA < 0.05)		0.074	Excellent Fit
NFI	0.95	$\leq$ NFI $\leq$ 1.00	0.90	$\leq$ NFI < 0.95	0.944	Excellent Fit
CFI	0.97	$\leq$ CFI $\leq$ 1.00	0.90	$\leq$ CFI < 0.95	0.964	Excellent Fit
GFI	0.95	$\leq$ GFI $\leq$ 1.00	0.90	$\leq$ GFI < 0.95	0.929	Excellent Fit
AGFI	0.95	$\leq$ AGFI $\leq$ 1.00	0.90	$\leq$ AGFI < 0.95	0.898	Good Fit

Interpretation - It was observed from the above table that the result of CFA was excellent (χ2/df or CMIN/df = 2.640, GFI = 0.929, AGFI = 0.898, CFI = 0.964, NFI = 0.944 and RMSEA = 0.064), the above figure assures the model fit of Job Performance and also signifies its statistical significance (Forza and Filippini (1998), Greenspoon and Saklofske (1998)

Establishment of Convergent and Discriminant validity

Convergent Validity

This type of validity indicates a specific construct convergence, or those which share a high proportion of variance in common. Convergent validity validates the degree to which two measures, sharing the same concept, are related. When said this way, reliability is an indicator of convergent validity (Hair et. al., 2010). This type of validity can be analyzed through Confirmatory Factor Analysis, to guarantee that the factor loading of constructs is more than .50

(Hair et. al., 2006). For convergent validity to be established the value of CR > 0.7,AVE > 0.5 and CR > AVE.

Discriminant Validity

It represents the extent to which a measure is distinct from other measures not concerned with the measurement of the same construct (Nunnally, 1970). Discriminant validity can be evaluated by using the Average Variance Extracted (AVE) (Fronell and Larcker, 1981), for every construct that exceeds the squared correlations between the construct and any other constructs For discriminant validity AVE > MSV and AVE > ASV

Table-4.1.41-Calculations of AVE value for Job performance Model

Indicator Variables		Latent Variables	Standerdized Loadings	Square of Standerdized Loadings	Sum of Square of Standerdized Loadings	No. of Indicators	AVE	Square Root of AVE
VAR20	<---	CCEA	0.79	0.62	1.73	3	0.57	0.75
VAR16	<---	CCEA	0.86	0.74				
VAR21	<---	CCEA	0.59	0.35				
VAR1	<---	SCP	0.81	0.66	3.8	5	0.77	0.87
VAR2	<---	SCP	0.89	0.79				
VAR3	<---	SCP	0.92	0.85				
VAR4	<---	SCP	0.93	0.87				
VAR5	<---	SCP	0.82	0.67				
VAR12	<---	RAC	0.88	0.78	2.09	3	0.69	0.83
VAR13	<---	RAC	0.92	0.84				
VAR14	<---	RAC	0.68	0.46				
VAR9	<---	PPE	0.85	0.73	2.32	3	0.77	0.87
VAR10	<---	PPE	0.89	0.79				
VAR11	<---	PPE	0.88	0.78				
VAR27	<---	TLPE	0.87	0.76	1.37	2	0.68	0.82
VAR29	<---	TLPE	0.78	0.60				

Interpretation - The standardized loadings and the AVE and Square Root of AVE were calculated and it was found that the value of Square Root of AVE is more than square of standardized loadings also the value of AVE is greater than 0.5 in all the cases, therefore it can be inferred that the constructs have convergent validity.

Table-4.1.42-Calculation of CR, MSV and AVE for Job Performance (using Gaskin`s formula)

	CR	AVE	MSV	MaxR(H)	PPE	CCEA	SCP	RAC	TLPE
PPE	0.911	0.773	0.213	0.912	0.879				
CCEA	0.800	0.577	0.046	0.838	-0.070	0.760			
SCP	0.944	0.772	0.200	0.954	0.447	-0.071	0.879		
RAC	0.873	0.700	0.213	0.910	0.462	-0.070	0.307	0.837	
TLPE	0.813	0.685	0.046	0.826	0.057	0.214	0.053	0.036	0.828

Interpretation - In the above table the value of CR, AVE and MSV has been calculated and it was recorded that the value of CR is above 0.7, value of AVE is more that 0.5 as well as the value of CR is more than that of AVE in all the cases hence the construct validity of the model is established. Furthermore the value of AVE is greater than MSV is all the cases and the discriminant validity is hence established.

4.6 Path Model - Impact of Attitude on Job Performance

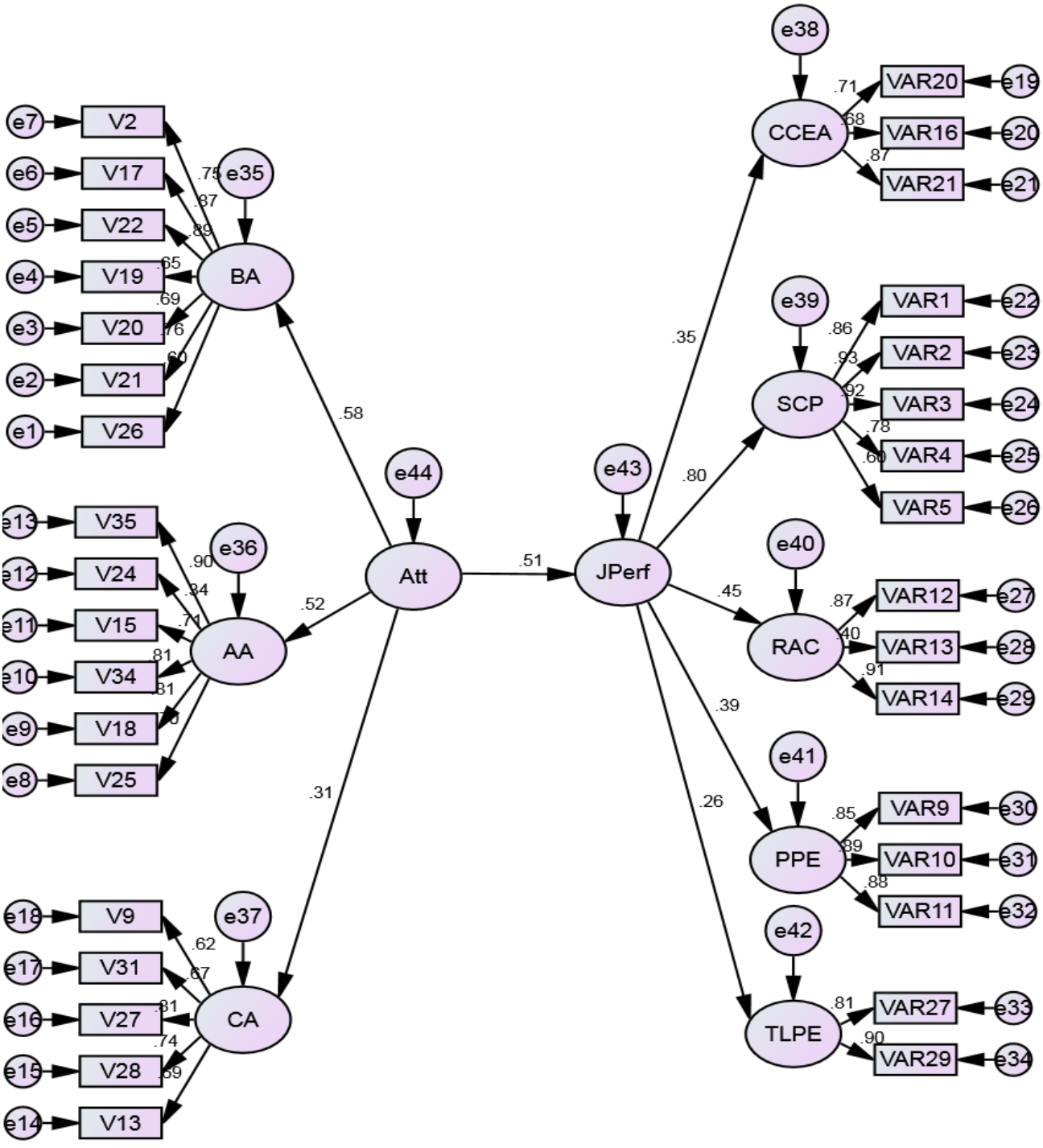

Fig.-4.2.3-Path Model (Impact of Attitude on Job Performance)

H_a- There is significant impact of attitude on job performance of teacher in higher educational institutions.

Notes for Group (Group number 1)

The model is recursive.

Sample size = 400

Table-4.1.43-Parameter Summary (Path Model)

	Weights	Covariances	Variances	Means	Intercepts	Total
Fixed	54	0	0	0	0	54
Labeled	0	0	0	0	0	0
Unlabeled	33	0	44	0	0	77
Total	87	0	44	0	0	131

Notes for Model (Default model)

Computation of degrees of freedom (Default model)

Number of distinct sample moments: 595

Number of distinct parameters to be estimated: 77

Degrees of freedom (595 - 77): 518

Result (Default model)

Minimum was achieved

Chi-square = 1523.841

Degrees of freedom = 518

Probability level = .000

Table-4.1.44- Regression Weights: (Path Model)

			Estimate	S.E.	C.R.	P	Label
JPerf	<---	Att	.501	.159	3.151	.002	
BA	<---	Att	1.000				
AA	<---	Att	1.437	.358	4.011	***	
CA	<---	Att	1.071	.322	3.327	***	
CCEA	<---	JPerf	1.000				
SCP	<---	JPerf	3.045	.687	4.430	***	
RAC	<---	JPerf	1.944	.454	4.285	***	

			Estimate	S.E.	C.R.	P	Label
PPE	<---	JPerf	1.586	.388	4.086	***	
TLPE	<---	JPerf	.866	.294	2.947	.003	
V26	<---	BA	1.000				
V21	<---	BA	1.503	.125	12.068	***	
V20	<---	BA	1.495	.133	11.269	***	
V19	<---	BA	1.421	.132	10.806	***	
V22	<---	BA	1.754	.131	13.341	***	
V17	<---	BA	2.076	.158	13.116	***	
V2	<---	BA	1.701	.143	11.911	***	
V25	<---	AA	1.000				
V18	<---	AA	2.455	.163	15.082	***	
V34	<---	AA	1.103	.073	15.092	***	
V15	<---	AA	1.337	.101	13.285	***	
V24	<---	AA	.466	.071	6.529	***	
V35	<---	AA	1.348	.082	16.434	***	
V13	<---	CA	1.000				
V28	<---	CA	.902	.072	12.590	***	
V27	<---	CA	1.147	.085	13.452	***	
V31	<---	CA	.879	.076	11.587	***	
V9	<---	CA	1.534	.141	10.842	***	
VAR20	<---	CCEA	1.000				
VAR16	<---	CCEA	1.018	.085	11.997	***	
VAR21	<---	CCEA	1.211	.098	12.371	***	
VAR1	<---	SCP	1.000				
VAR2	<---	SCP	1.069	.039	27.079	***	
VAR3	<---	SCP	1.067	.040	26.542	***	
VAR4	<---	SCP	.773	.040	19.350	***	
VAR5	<---	SCP	.580	.044	13.299	***	
VAR12	<---	RAC	1.000				
VAR13	<---	RAC	.417	.054	7.775	***	
VAR14	<---	RAC	1.083	.077	13.993	***	
VAR9	<---	PPE	1.000				
VAR10	<---	PPE	.963	.044	22.035	***	
VAR11	<---	PPE	1.069	.049	21.836	***	
VAR27	<---	TLPE	1.000				
VAR29	<---	TLPE	1.081	.218	4.956	***	

Table-4.1.45-Standardized Regression Weights: (Path Model)

			Estimate
JPerf	<---	Att	.511
BA	<---	Att	.584
AA	<---	Att	.525
CA	<---	Att	.314
CCEA	<---	JPerf	.355
SCP	<---	JPerf	.805
RAC	<---	JPerf	.453
PPE	<---	JPerf	.389
TLPE	<---	JPerf	.258
V26	<---	BA	.600
V21	<---	BA	.762
V20	<---	BA	.691
V19	<---	BA	.652
V22	<---	BA	.895
V17	<---	BA	.868
V2	<---	BA	.747
V25	<---	AA	.700
V18	<---	AA	.813
V34	<---	AA	.813
V15	<---	AA	.710
V24	<---	AA	.344
V35	<---	AA	.901
V13	<---	CA	.691
V28	<---	CA	.735
V27	<---	CA	.809
V31	<---	CA	.666
V9	<---	CA	.618
VAR20	<---	CCEA	.710
VAR16	<---	CCEA	.685
VAR21	<---	CCEA	.871
VAR1	<---	SCP	.863
VAR2	<---	SCP	.934
VAR3	<---	SCP	.924
VAR4	<---	SCP	.778
VAR5	<---	SCP	.600
VAR12	<---	RAC	.872
VAR13	<---	RAC	.398
VAR14	<---	RAC	.908
VAR9	<---	PPE	.850
VAR10	<---	PPE	.891
VAR11	<---	PPE	.883

			Estimate
VAR27	<---	TLPE	.810
VAR29	<---	TLPE	.904

Table-4.1.46-Squared Multiple Correlations: (Path Model)

	Estimate
Att	.000
JPerf	.261
TLPE	.067
PPE	.151
RAC	.205
SCP	.647
CCEA	.126
CA	.099
AA	.275
BA	.341
VAR29	.817
VAR27	.657
VAR11	.779
VAR10	.794
VAR9	.722
VAR14	.825
VAR13	.158
VAR12	.760
VAR5	.360
VAR4	.605
VAR3	.854
VAR2	.872
VAR1	.745
VAR21	.759
VAR16	.469
VAR20	.504
V9	.382
V31	.444
V27	.655
V28	.541
V13	.477
V35	.812

	Estimate
V24	.118
V15	.505
V34	.662
V18	.661
V25	.490
V2	.559
V17	.754
V22	.801
V19	.426
V20	.477
V21	.581
V26	.360

Model Fit Summary (Path Model)

Table-4.1.47-CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	77	1523.841	518	.000	2.942
Saturated model	595	.000	0		
Independence model	34	8531.313	561	.000	15.207

Table-4.1.48-RMR, GFI

Model	RMR	GFI	PGFI
Default model	.063	.801	.697
Saturated model	.000	1.000	
Independence model	.175	.338	.318

Table-4.1.49-Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.821	.807	.874	.863	.874
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Table-4.1.50-Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.923	.758	.807
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

Table-4.1.51- NCP

Model	NCP	LO 90	HI 90
Default model	1005.841	892.612	1126.677
Saturated model	.000	.000	.000
Independence model	7970.313	7674.717	8272.332

Table-4.1.52-FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	3.819	2.521	2.237	2.824
Saturated model	.000	.000	.000	.000
Independence model	21.382	19.976	19.235	20.733

Table-4.1.53-RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.070	.066	.074	.000
Independence model	.189	.185	.192	.000

Table-4.1.54-AIC

Model	AIC	BCC	BIC	CAIC
Default model	1677.841	1692.648	1985.183	2062.183
Saturated model	1190.000	1304.423	3564.921	4159.921
Independence model	8599.313	8605.851	8735.022	8769.022

Table-4.1.55- ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	4.205	3.921	4.508	4.242
Saturated model	2.982	2.982	2.982	3.269
Independence model	21.552	20.811	22.309	21.569

Table-4.1.56- HOELTER

Model	HOELTER .05	HOELTER .01
Default model	150	157
Independence model	29	31

Table-4.1.57-Model Fit Indices (Path Model)

Fit Measure	**Good Fit**		**Excellent Fit**		**Goodness fit**	**Remarks**
					Indices (Measurement Model)	
χ^2/df (CMIN/df)	$0 \leq \chi^2/df \leq 2$		$2 < \chi^2/df \leq 3$		2.942	Excellent Fit
RMSEA	$0 \leq$ RMSEA ≤ 0.05		$0.05 <$ RMSEA ≤ 0.08		0.070	Excellent Fit
P Value for Test of Close Fit (RMSEA <0.05)	$0.10 < p \leq 1.00$ (RMSEA < 0.05)		$0.05 \leq p \leq 0.10$ (RMSEA < 0.05)		0.074	Excellent Fit
NFI	0.95	≤ NFI ≤ 1.00	0.90	≤ NFI < 0.95	0.821	Good Fit
CFI	0.97	≤ CFI ≤ 1.00	0.90	≤ CFI < 0.95	0.874	Good Fit
GFI	0.95	≤ GFI ≤ 1.00	0.90	≤ GFI < 0.95	0.801	Good Fit

Interpretation - The result of path model - Impact of attitude on job performance was good. **Greenspoon & Saklofske (1977)** indicates the conventional criteria of 0.80 as good fit. **Ishiyaku, B., Kasim, R., & Harir, A., I., (2017)** have also highlighted the value of Index category and level of acceptance equivalent to 0.80 and the literature was also supported by the work of **Forza & Filippini (1998),** It is evident from the above table that (χ2/df or CMIN/df = 2.942, GFI = 0.801, CFI = 0.874, NFI = 0.821 and RMSEA = 0.070), the above figure assures the model fit of the overall model.

4.7 Analysis of objectives/ Hypothesis

Objective -1 - To study the impact of attitude on job performance of teacher in higher educational institutions in NCR

H_{1a} - There is significant impact of attitude on job performance of teacher in higher educational institutions.

Table – 4.1.58- Regression Weights: (Path Model)

			Estimate	S.E.	C.R.	P	Label
JPerf	<---	Att	.501	.159	3.151	.002	
BA	<---	Att	1.000				
AA	<---	Att	1.437	.358	4.011	***	
CA	<---	Att	1.071	.322	3.327	***	
CCEA	<---	JPerf	1.000				
SCP	<---	JPerf	3.045	.687	4.430	***	
RAC	<---	JPerf	1.944	.454	4.285	***	
PPE	<---	JPerf	1.586	.388	4.086	***	
TLPE	<---	JPerf	.866	.294	2.947	.003	

Table-4.1.59-Standardized Regression Weights: (Path Model)

			Estimate
JPerf	<---	Att	.511
BA	<---	Att	.584
AA	<---	Att	.525
CA	<---	Att	.314
CCEA	<---	JPerf	.355
SCP	<---	JPerf	.805
RAC	<---	JPerf	.453
PPE	<---	JPerf	.389
TLPE	<---	JPerf	.258

Table-4.1.60-Squared Multiple Correlations: (Path Model)

	Estimate
Att	.000
JPerf	.261
TLPE	.067
PPE	.151
RAC	.205

	Estimate
SCP	.647
CCEA	.126
CA	.099
AA	.275
BA	.341

Interpretation – It is very evident from the Regression weight table, Standardized Regression Weights table and Squared Multiple Correlations table mentioned above(For consolidated tables, please refer Chapter No – 3 and Page No – 106 - 110) that the value of R is 0. 511 which indicates that there is a positive correlation; furthermore the value of R square is 0. 261, the value of sig. is 0.002; it clearly indicates the relationship is statically significant. Therefore the alternative hypothesis stated above stands accepted and it is established that there is a significant impact of attitude on job performance. A teacher having positive attitude is judicious, clear, informative and well aware about his dimensions and dynamics of teaching profession and can fine tune and add his abilities as per the requirements of the profession (**Kavitha & Venkateswaran, 2015).**

From the above table it could also be concluded that there is a significant impact of cognitive attitude, behavioural attitude and affective attitude on overall attitude. It could also be established that there is a significant impact of teaching and learning and evaluation activities, research publications and academic contributions activities, Student centered practices, co-curricular extension and professional development activities and punctuality and professional ethics on job performance.

Inter- comparison of cognitive attitude, affective attitude and behavioural attitude on Overall attitude

Table-4.1.61– Relationship of CA, BA and AA with overall Attitude

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
BA	<---	Att	1.000				
AA	<---	Att	1.437	.358	4.011	***	
CA	<---	Att	1.071	.322	3.327	***	

Table- 4.1.62- Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
BA	<---	Att	.584
AA	<---	Att	.525
CA	<---	Att	.314

Table – 4.1.63- Squared Multiple Correlations: (Group number 1 - Default model)

	Estimate
CA	.099
AA	.275
BA	.341

Interpretation – Out of Cognitive, affective and behavioural component of attitude on Overall attitude the impact of behavioural component is more intense as it explains the inter-relationship between attitude and the way a teacher act or behaves. The behavioural component explains the complimentary relationship between behavior and attitude and as it visible as compared to other two components of attitude, hence it is more intense.

Inter- comparison of sub constructs of Job performance on Job Performance

Table-4.1.64 - Regression Weights of sub constructs of Job performance on Job Performance

			Estimate	S.E.	C.R.	P	Label
CCEA	<---	JPerf	1.000				
SCP	<---	JPerf	3.045	.687	4.430	***	
RAC	<---	JPerf	1.944	.454	4.285	***	
PPE	<---	JPerf	1.586	.388	4.086	***	
TLPE	<---	JPerf	.866	.294	2.947	.003	

Table-4.1.65-Standardized Regression Weights of sub constructs of Job performance on Job Performance

			Estimate
CCEA	<---	JPerf	.355
SCP	<---	JPerf	.805
RAC	<---	JPerf	.453
PPE	<---	JPerf	.389
TLPE	<---	JPerf	.258

Table-4.1.66- Squared Multiple Correlations of sub constructs of Job performance on Job Performance

	Estimate
TLPE	.067
PPE	.151
RAC	.205
SCP	.647
CCEA	.126

Interpretation – As compared to all sub constructs of Job Performance considered like Co-Curricular, Extension and Professional Development Activities (CCEA), Student`s Performance and Student Centered Practices (SCP), Research and Academic Contributions (RAC), Punctuality and professional ethics (PPE), Teaching, Learning Process and Evaluation (TLPE) the impact of student centered practice on job performance is more intense and the impact of Teaching, Learning Process and Evaluation on Job evaluation is leas but both the relationships are statistically significant.

Objective – 2 - To analyze the impact of attitude on job performance of teacher in government funded and self-financed higher educational institutions in NCR

H_{2a} - There is significant difference in impact of attitude on job performance of teachers in government funded and self-financed higher education institutions in NCR.

Table-4.1.67- Group Statistics of government funded and self financed higher educational institutions

	NOI	N	Mean	Std. Deviation	Std. Error Mean
Overall_Attitude	Government Aided	200	3.0900	.53415	.03777
	Self-Financed	200	3.0366	.48994	.03464
Job Performance Overall	Government Aided	200	3.8520	.34050	.02408
	Self-Financed	200	3.8276	.30255	.02139

Table-4.1.68- Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Overall_Attitude	Equal variances assumed	1.025	.312	1.041	398	.298	.05337	.05125	-.04739	.15412
	Equal variances not assumed			1.041	395.067	.298	.05337	.05125	-.04740	.15413
Job Performance Overall	Equal variances assumed	2.396	.122	.759	398	.449	.02443	.03221	-.03889	.08775
	Equal variances not assumed			.759	392.568	.449	.02443	.03221	-.03889	.08776

Interpretation - It is clearly visible from the above table that the value of sig is well above 0.05 under Levene's Test for Equality of Variances which signifies equal variance assumed and hence the alternative hypothesis stated above stands rejected and it is established that there is no significant difference in impact of attitude on job performance of teachers in government funded and self-financed higher education institutions in NCR. These educational institutions are managed as per rules and codes of regulating agencies and the problem faced by teachers/ issues of the institutions are almost similar **(Hiremath & Albal, 2016).**

Objective – 3 To explore the impact of demographic factors like gender, age, qualifications and experience on job performance of teachers in higher education institutions in NCR

H_{3a} - There is a significant difference in job performance perception across gender in higher education institutions in NCR.

Table-4.1.69- Group Statistics of gender

	GENDER	N	Mean	Std. Deviation	Std. Error Mean
Job Performance Overall	Male	200	3.8277	.31686	.02241
	Female	200	3.8519	.32724	.02314

Table-4.1.70- Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Job Performance Overall	Equal variances assumed	1.108	.293	-.752	398	.452	-.02423	.03221	-.08755	.03909
	Equal variances not assumed			-.752	397.588	.452	-.02423	.03221	-.08755	.03909

Interpretation – It is clearly visible from the above table that the value of sig is well above 0.05 under Levene's Test for Equality of Variances which signifies equal variance assumed and hence it can be concluded that the variance in case of Male and Female teachers are almost same and there is no significant difference of impact of gender on job Performance. Therefore the alternative hypothesis sated above is rejected. Male and female teacher are tolerance towards implementation of the instructions and working within a prescribed code **(Aytac, 2015).** Male and Female teachers exhibit better understanding of the academic concerns and exert efforts to streamline performance of self and taught **(Shah & Udgaonkar, 2018)**

H_{3b} - There is significant difference in job performance perception across age of teachers in higher education institutions in NCR.

Table-4.1.71– Descriptive Statistics of age and Job performance

Descriptives								
Job Performance Overall								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Less than 30 Years	14	3.9867	.26801	.07163	3.8319	4.1414	3.40	4.40
31 years to 40 Years	141	3.6313	.27363	.02304	3.5857	3.6768	2.89	4.33
41 Years to 50 Years	140	3.8824	.27934	.02361	3.8357	3.9291	2.99	4.52
51 years and Above	105	4.0434	.27810	.02714	3.9896	4.0972	3.39	4.67
Total	400	3.8398	.32192	.01610	3.8081	3.8714	2.89	4.67

Table-4.1.72 – ANOVA, age and Job Performance

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11.042	3	3.681	48.094	.000
Within Groups	30.306	396	.077		
Total	41.348	399			

Interpretation - The ANOVA table clearly states that the value of F is 48.094 and the value of sig is well below 0.05 therefore we can conclude that there is correlation between age and job performance of teachers and there exists a difference of mean among the sample. Therefore the alternative hypothesis stated above stands accepted. With increasing age the understanding, mental thrust, teaching skills and self – efficacy improve, however the relationship is mild **(Kinney & Smith, 1992)**

H_{3c} - There is significant difference in job performance perception across qualification of teachers in higher education institutions in NCR.

Table-4.1.73 – Descriptive statistics of qualification and Job Performance

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
B. Ed/ M.Ed	105	3.6208	.25864	.02524	3.5707	3.6708	2.89	4.16
M.Tech/ M.Sc/M.C.A	110	3.8475	.27563	.02628	3.7954	3.8995	2.99	4.47
UGC-NET	28	3.8643	.44513	.08412	3.6917	4.0369	2.96	4.67
Ph.D.	157	3.9765	.28605	.02283	3.9314	4.0216	3.13	4.53
Total	400	3.8398	.32192	.01610	3.8081	3.8714	2.89	4.67

Table-4.1.74 – ANOVA, Qualification and Job Performance

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7.996	3	2.665	31.644	.000
Within Groups	33.353	396	.084		
Total	41.348	399			

Interpretation - The ANOVA table clearly states that the value of F is 31.644 and the value of sig is well below 0.05 therefore we can conclude that there is correlation between qualifications and job performance of teachers and there exists a difference of mean among the sample, it clearly indicates the relationship is statically significant. Therefore the alternative hypothesis stated above stands accepted and it is established that there is a significant impact of qualifications on job performance of teachers in higher education institutions in NCR. Qualified teachers have an edge in planning and managing the course content, methodologies and pedagogy as compared to others **(Chaithra & Hiremath, 2018)**

H_{3d} - There is significant difference in job performance perception across experience of teachers in higher education institutions in NCR**.**

Table-4.1.75-Descriptive statistics of experience and Job Performance

	N	Mean	Std. Dev.	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Less than 5 Years	14	3.9200	.35143	.09392	3.7171	4.1229	3.28	4.40
6 Years - 10 Years	119	3.6463	.27518	.02523	3.5963	3.6962	2.89	4.43
11 Years to 15 Years	114	3.8272	.28624	.02681	3.7741	3.8803	2.99	4.47
16 Years - 20 Years	139	3.9807	.27963	.02372	3.9338	4.0276	3.13	4.53
More than 20 Years	14	4.1081	.43207	.11548	3.8586	4.3576	3.24	4.67
Total	400	3.8398	.32192	.01610	3.8081	3.8714	2.89	4.67

Table-4.1.76 – ANOVA, Experience and Job Performance

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.331	4	2.083	24.917	.000
Within Groups	33.017	395	.084		
Total	41.348	399			

Interpretation - The ANOVA table clearly states that the value of F is 24.917 and the value of sig is well below 0.05 therefore we can conclude that there is correlation between experience and job performance of teachers and there exists a difference of mean among the sample, it clearly indicates the relationship is statically significant. Therefore the alternative hypothesis stated above stands accepted and it is established that there is a significant impact of experience on job performance of teachers in higher education institutions in NCR. Experienced teacher can make classroom environment and curriculum lively and compassionate and can plan and manage curriculum and delivery well **(Sarani & Rezaee, 2017).** However, the relationship between experience of a teacher and his job performance is complex and non linear **(Irvine, 2019)**

H_{3e} - There is significant difference in attitude perception across gender of teachers in higher education institutions in NCR.

Table- 4.1.77 - Group Statistics gender on attitude

	GENDER	N	Mean	Std. Deviation	Std. Error Mean
Overall_Attitude	Male	200	3.0782	.49449	.03497
	Female	200	3.0485	.53087	.03754

Table- 4.1.78 - Independent Samples Test **(**gender on attitude)

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Overall Attitude	Equal variances assumed	.789	.375	.579	398	.563	.02968	.05130	-.07117	.13054
	Equal variances not assumed			.579	396.010	.563	.02968	.05130	-.07117	.13054

Interpretation - It is clearly visible from the above table that the value of sig is well above 0.05 under Levene's Test for Equality of Variances which signifies equal variance assumed and hence it can be concluded that the variance in case of Male and Female teachers are almost same and there is no significant difference of impact of gender on Attitude. Therefore the alternative hypothesis stated above is rejected. Gender differences on attitude are not significant as the conditions across the higher educational institutions are same and they are being regulated by similar codes and rules (Kumar, 2015). The way in which male and female teachers perceive their task is almost same (Sebastian, 2013).

H_{3f} - There is significant difference in attitude perception across age of teachers in higher education institutions in NCR.

Table –4.1.79 - Descriptive Statistics of Age on attitude

Overall Attitude

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Less than 30 Years	14	2.2009	.41664	.11135	1.9603	2.4415	1.67	2.89
31 years to 40 Years	141	2.7266	.38185	.03216	2.6631	2.7902	1.63	3.81
41 Years to 50 Years	140	3.1896	.37548	.03173	3.1268	3.2523	2.16	4.48
51 years and Above	105	3.4620	.40720	.03974	3.3832	3.5408	2.33	4.61
Total	400	3.0633	.51257	.02563	3.0129	3.1137	1.63	4.61

Table – 4.1.80 – ANOVA (Age on Attitude)

Overall Attitude

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	45.318	3	15.106	100.517	.000
Within Groups	59.512	396	.150		
Total	104.830	399			

Interpretation - The ANOVA table clearly states that the value of F is 104.189 and the value of sig is well below 0.05. Therefore, we can conclude that between different age groups of teachers the respective attitude is different and hence the alternative hypothesis stated above is accepted. The relationship between age of the teachers and their attitude towards the teaching profession is significant as a result of the difference between feeling or emotions, beliefs or ideas and psychomotor component with change in age **(Soibamcha and Pandey, 2016).** Also with increasing age the understanding, mental thrust, teaching skills and self – efficacy improve **(Kinney & Smith, 1992)**

H_{3g} - There is significant difference in attitude perception across qualification of teachers in higher education institutions in NCR.

Table – 4.1.81 - Descriptive Statistics of qualification on attitude

Overall Attitude

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
B. Ed/ M.Ed	105	2.7474	.37064	.03617	2.6756	2.8191	1.85	3.63
M.Tech/ M.Sc/M.C.A	110	3.0843	.34220	.03263	3.0196	3.1489	2.29	4.18
UGC-NET	28	3.1244	.64984	.12281	2.8724	3.3764	1.97	4.61
Ph.D.	157	3.2490	.56800	.04533	3.1595	3.3386	1.63	4.48
Total	400	3.0633	.51257	.02563	3.0129	3.1137	1.63	4.61

Table –4.1.82 – ANOVA (Qualifications on Attitude)

Overall Attitude

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	16.048	3	5.349	23.859	.000
Within Groups	88.783	396	.224		
Total	104.830	399			

Interpretation - The ANOVA table clearly states that the value of F is 104.189 and the value of sig is well below 0.05.. Therefore, we can conclude that between different qualifications of teachers the respective attitude is different and hence the alternative hypothesis stated above is accepted. The results found above support the work of Orluwene (2017), according to whom the qualification of the teachers significantly influences the way used by a teacher for classroom assessment, also with increase in qualification the planning and managing part of teacher becomes strong and hence his psychology improves.

H_{3h} - There is significant difference in attitude perception across experience of teachers in higher education institutions in NCR.

Table – 4.1.83 - Descriptive Statistics of Experience on attitude

Overall Attitude

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Less than 5 Years	14	2.1671	.45200	.12080	1.9061	2.4281	1.63	3.29
6 Years - 10 Years	119	2.7666	.39855	.03653	2.6942	2.8389	1.83	3.82
11 Years to 15 Years	114	3.0709	.33848	.03170	3.0081	3.1337	2.29	4.18
16 Years - 20 Years	139	3.3546	.46432	.03938	3.2767	3.4325	1.94	4.48
More than 20 Years	14	3.5279	.56754	.15168	3.2002	3.8556	2.33	4.61
Total	400	3.0633	.51257	.02563	3.0129	3.1137	1.63	4.61

Table –4..84 - **ANOVA (**Experience on Attitude)

Overall Attitude

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	36.546	4	9.136	52.850	.000
Within Groups	68.285	395	.173		
Total	104.830	399			

Interpretation - The ANOVA table clearly states that the value of F is 52.850 and the value of sig is well below 0.05. Therefore, we can conclude that across different experiences group of teachers' attitude varies hence the alternative hypothesis stated above is accepted and it was established that there is significant difference in attitude perception across experience of teachers in higher education institutions in NCR. Teaching experiences fosters positive attitude towards teaching approach more quickly than general experiences in other settings **(Mackenzie, Hemmings and Kay, 2011)**

4.8 Focused Group Discussion

The focused group discussion highlighted the deep paraphernalia and basic characteristics of Male and female teachers in the higher educational institutions (Government aided and Self-Financed). All members agreed to the fact that in order to survive and develop all kind of institutions whether government funded or self-financed needed to be more competitive and innovative in their approach, pedagogy and delivery. Members were sharing their experiences and practical life happenings to support their arguments. Most of the participants were trying to relate personality traits, habits, cognition and behavior to their attitude and job performance.

Some mild difference in opinion were also evident, when discussion progressed and directed towards the impact of attitude of male and female teachers on job performance then most of the participants (7 out of 9) have favoured female section due to their qualities like expressiveness, sharp team building skills, pleasing personality etc, However 1participants was neutral and was in favour of situational impact on job performance and he thruster more on work environment and freedom to plan and execute for a better job performance. 1 retired male principal from a self-financed higher educational institute was of different opinion; he argued that Male teaching staffs are more adjusting and have better expressive views as compared to female teaching staff.

Composition of group - The focus group was having 9 Participants out of 9 Participants, 5 were male and rests 4 were female participants. The participants were invited both from Government aided and Self-financed higher educational institute. The central idea was to get a fair response and a fair representation of both category in terms of gender and nature of Institutions. Composition of the group was - 2 senior academicians, 1 retired administrators, 2 principals (1 from self-financed and another from Government Institution) , 2 retired teachers (one from government aided and another from self-financed higher educational institute) and 2 faculty members (one from government aided and another from self-financed higher educational institute).

Response of teachers of the group - In most of the cases male members were having same view as compared to their female counterpart but 1 member was neutral to the topic of discussion and 1 more male member have mild conflicting views especially related to better expressive skills and relationship building skills of female teachers as compared to male teachers

Difference opinion of the members - Initially when the topic was introduced and the purpose of focused group discussion were well explained to the participating members then few conclusive

statements were passed from both sides The intensity of statement/ response from female teachers was more as compared to their male counterpart. Individuals were having their own opinion (based on their feelings and experiences), knowledge and intelligence, hence as the discussion progressed it was witnessed that the participants were getting more logical, factual and thoughtful in their responses.

Findings of FGD (On the basis of response recorded)

- Attitude impacts Job performance of teachers in government aided and self financed higher educational Institutes
- Female teachers are proficient in developing warm and friendly relationships with students as compared to male that are more self contained and discipline oriented.
- Female teachers can easily make the student feel homely and comfortable as compared to their male counterpart and can understand the prominent characteristics, temper, objectivity, achievement motivation of students better than their male counterpart, this part facilitates attitude and hence their influence on students and classroom environment is more.
- The system, frames of Government aided and Self-Financed higher educational institutions are more or less same except few points like finance and stability of tenure etc.
- Age, Qualification and Experience casts a positive impact of Job Performance and Attitude. Experienced teachers can better grasp the syllabus, their familiarity with the curriculum, concepts, teaching and learning becomes better causing positive shift in Job performance and attitude and hence classroom environment and curriculum becomes lively and compassionate.
- In self-financed higher educational Institutions the working pattern is more or less regulated by management of the Institution rather and Job performance is generally measured in terms of admissions, Administrative tasks, Funds raised etc. Shrinking financial resources, escalating competition has resulted in an increased stress at work

4. 9 Micro Analysis of variables of Attitude and Job Performance

Impact of Cognitive Attitude on Job Performance of teachers in higher education institutions in NCR

Table-4.1.85- Model Summary, Cognitive Attitude on Job Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.544[a]	.296	.287	7.86540	.296	33.093	5	394	.000

a. Predictors: (Constant), V31, V13, V9, V27, V28

Table-4.1.86-ANOVA[a] , Cognitive Attitude on Job Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10236.462	5	2047.292	33.093	.000[b]
	Residual	24374.636	394	61.865		
	Total	34611.098	399			

a. Dependent Variable: Job Performance

b. Predictors: (Constant), V31, V13, V9, V27, V28

Interpretation - The model summary presented above clearly states that the value of R is 0.544 which indicates that there is a positive and medium degree of correlation; furthermore the value of R square is 0. 0.296, the value of adjusted R square is 0.287 and the value of sig. is 0.00, it clearly indicates the relationship is statically significant. It also signifies that the impact is positive and medium. Salgado, Otero and Moscoso, (2019) have highlight correlation between attitude and Job performance and have shown the importance of cognitive reflections.

Impact of Affective Attitude on Job Performance of teachers in higher education institutions in NCR

Table – 4.1.87 - Model Summary, Affective Attitude on Job Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.267[a]	.071	.057	9.04376	.071	5.029	6	393	.000

a. Predictors: (Constant), V35, V15, V34, V25, V24, V18

Table – 4.1.88- ANOVA[a], Affective Attitude on Job Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2467.790	6	411.298	5.029	.000[b]
	Residual	32143.307	393	81.790		
	Total	34611.098	399			

a. Dependent Variable: Job Performance

b. Predictors: (Constant), V35, V15, V34, V25, V24, V18

Interpretation - The model summary presented above clearly states that the value of R is 0.267 which indicates that there is a positive and low degree of correlation, furthermore the value of R square is 0. 0.071, the value of adjusted R square is 0.057 and the value of sig. is 0.00, it clearly indicates the impact is statically significant. It also signifies that the correlation is positive and weak. Santiago (2019) in his work has highlighted the impact of attitude on job performance and shown that teacher's affective attitude exert significant combined effect on the organizational commitment.

Impact of Behavioural attitude on Job Performance of teachers in higher education institutions in NCR

Table-4.1.89-Model Summary, Behavioural attitude on Job Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.481[a]	.231	.217	8.23927	.231	16.835	7	392	.000

a. Predictors: (Constant), V26, V2, V17, V21, V20, V19, V22

Table-4.1.90-ANOVA[a,] Behavioural attitude on Job Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7999.974	7	1142.853	16.835	.000[b]
	Residual	26611.123	392	67.886		
	Total	34611.098	399			

a. Dependent Variable: Job Performance

b. Predictors: (Constant), V26, V2, V17, V21, V20, V19, V22

Interpretation – The model summary presented above clearly states that the value of R is 0.481 which indicates that there is a positive and medium degree of correlation, furthermore the value of R square is 0.231, the value of adjusted R square is 0.217 and the value of sig. is 0.00, it clearly indicates the impact is statically significant. It also signifies that the correlation is positive and medium. **Kavitha & Venkateswaran (2015)** have shown a positive impact of attitude on job performance.

Correlations between Components of Attitude and indicators of Job performance of a teacher in higher educational institution

Table – 4.1.91- Correlation between Components of Attitude and Job performance indicators

		Behavioural Attitude	Affective Attitude	Cognitive Attitude	CCEA	SCP	RAC	PPE	TLPE
Behavioural Attitude	Pearson Correlation	1	.370**	.331**	.011	.314**	.648**	.026	.057
	Sig. (2-tailed)		.000	.000	.821	.000	.000	.610	.260
	N	400	400	400	400	400	400	400	400
Affective Attitude	Pearson Correlation	.370**	1	.209**	-.013	.212**	.225**	.010	.077
	Sig. (2-tailed)	.000		.000	.790	.000	.000	.849	.124
	N	400	400	400	400	400	400	400	400
Cognitive Attitude	Pearson Correlation	.331**	.209**	1	-.021	.934**	.210**	-.016	.051
	Sig. (2-tailed)	.000	.000		.673	.000	.000	.752	.311
	N	400	400	400	400	400	400	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Interpretation – From the above table it is evident that the correlation between cognitive attitude and student centered practices is highest 0.934 amongst all followed by correlation between behavioral attitude and research and academic contributions. In case of correlation between behavioural attitude and Job performance parameter the highest correlation is observed between behavioural attitude and research and academic contributions and the lowest correlation is observed between behavioural attitude and co curricular and extension activities. In case of correlation between affective attitude and Job performance parameter the highest correlation is observed between affective attitude and research and academic contributions and the lowest correlation is observed between affective attitude and punctuality and professional ethics. In case of correlation between cognitive attitude and Job performance parameter the highest correlation

is observed between cognitive attitude and student centered practices and the lowest correlation is observed between cognitive attitude and punctuality and professional ethics. The correlation between components of attitude and Job performance parameters are evident and in case of SCP and RAC it is statistical significant.

4.10 Summary of the Chapter

In this chapter the data collected from 400 teachers working in government funded and self-financed higher educational institution from NCT region was analyzed to arrive at a result. Different statistical tools like mean, ANOVA, t test, factor analysis KMO and Bartlett's test of sphericity etc was applied to the collected data. The impact of independent variable (Attitude) on dependent variable (Job Performance structure equation modeling was used. The reliability and validity of the constructs were tested through CFA. Hypothesis was also tested. The chapter has presented statistical results on the basis of which the findings and conclusions were drafted and interpreted. With the help of analysis and interpretation of data the correlation between constructs are established and the impact of independent variable (attitude) on dependent variable (job performance) is ascertained and interpreted.

CHAPTER – 5

RESULTS, DISCUSSIONS AND CONCLUSIONS

CHAPTER – 5

RESULTS, DISCUSSIONS AND CONCLUSIONS

5.1 Introduction

The chapter summarized the findings of the research that was discussed in the previous chapter. The summarization is based on data analysis. Result, discussion and conclusion are the presentation of the findings of the research in compact form. The findings of the chapter could effectively be related with the objectives of the study. It presents a complete fame regarding impact of attitude on job performance of teacher in higher educational institution within the selected scope. Not only the impact of overall attitude is presented but, impact of components of attitude on job performance and correlations between components of attitude and indicators of job performance of a teacher is also presented. This chapter started with introduction of the chapter and then summary of research findings was presented in bullets to give a clear picture of research findings. The chapter also presents the managerial implications of the stated topic which will further help the institutions, policy makers, apex institutions and government to identify the key areas where the research findings could be implemented effectively and efficiently for holistic growth of the higher education sector in India. The limitations of the research is also mentioned in the chapter followed by scope for further research that can be carried out to address the issues that has not been addressed by the present research.

5.2 Summary of Research Findings

On the basis research undertaken and data analysis in the previous chapter following findings has been recorded

- There is a significant impact of attitude on job performance. A teacher with positive attitude is committed towards his profession and delivers better. He transforms teaching into informative and interesting session thereby increasing its impact. A teacher having positive attitude is judicious, clear, informative and well aware about his dimensions and dynamics of teaching profession and can fine tune and add his abilities as per the requirements of the profession.

- There is a significant impact of cognitive attitude, affective attitude and behavioural attitude on overall attitude. The intensity of impact of behavioural attitude is more as compared to cognitive and affective attitude as it is covert and is seen.
- There is a significant impact of co-curricular and extension and professional development activities, student centered practices, research publications and academic contributions activities, punctuality and professional ethics and teaching and learning and evaluation activities on job performance. Out of all parameters the impact of student centered practice on job performance is more intense and the impact of Teaching, Learning Process and Evaluation is least but both the relationships are statistically significant.
- There is no significant difference of impact of gender on job Performance. This is because both male and female teacher tolerance towards implementation of the instructions and working within a prescribed code. Both exhibit better understanding of the academic concerns and prefer to deal with problems straightly. Male and female teacher generally prefers to have compassionate and social relationship with student and exhibit better classroom teaching skills and student centered practices.
- There is no significant difference in impact of attitude on job performance of teachers in government funded and self financed higher education institutions. In Delhi, NCT the fee structure are regulated by SFRC, directorate of higher education and both kindof institutions are governed by the prescribed code of conduct formulated by apex agencies like AICTE, UGC.
- There significant correlation between age, qualifications, experience and job performance of teachers.
- In case of correlation between behavioural attitude and Job performance parameter the highest correlation is observed between behavioural attitude and research and academic contributions and the lowest correlation is observed between behavioural attitude and co-curricular and extension activities**.**
- In case of correlation between affective attitude and Job performance parameter the highest correlation is observed between affective attitude and research and academic contributions and the lowest correlation is observed between affective attitude and punctuality and professional ethics.

- In case of correlation between cognitive attitude and Job performance parameter the highest correlation is observed between cognitive attitude and student centered practices and the lowest correlation is observed between cognitive attitude and punctuality and professional ethics

5.3 Discussions

A teacher with positive attitude is committed towards his profession and transforms teaching into informative and interesting task. The positive perception, feeling, opinion and intentions to behave cast an excellent impact on motivation of a teacher and hence his overall job performance is impacted positively. A teacher having positive attitude is judicious, clear, informative and well aware about his dimensions and dynamics of teaching profession and can fine tune and add to his abilities as per the requirements of the profession and therefore can perform better. The positive attitude of a teacher towards teaching and his profession also improves his job satisfaction and hence the performance experiences a positive thrust.

The beliefs and opinion of a teacher towards teaching and other stakeholder related to teaching affects his overall attitude. The feeling or emotion of a teacher increases the ability of a teacher to recall information or events that are/ appears to be more stable over time and hence impacts his memory and attitude

Co-curricular and extension and professional development activities add to the mental and physical growth of the participants with an incremental impact on their self-esteem and self-concept. Student centered practices makes learning more enjoyable and makes it effective and interactive wherein the learners/ teachers become more independent as well as accountable. It provides more chances and opportunities to participate and learn resulting in academic, personal and professional development. Research and academic contributions help the teachers in increasing concerns and awareness about the current practices and happenings, therefore teachers becomes more aware and could relate better to the current practices. Research driven approach help the teachers to create an excellent environment of teaching and learning which in turn develops their potential and performance. Punctuality and professional ethics helps a teacher to know and determine the right and judicious meaning of teaching and helps them to identify the do`s and don’ts of the profession and guides their work related behavior. Professional code and ethics helps a teacher remind their duties inside and outside the class and help them to optimize

their performance. Participation of teachers in teaching learning and evaluation activities helps them in better planning and scheduling of supervisory activities. It also develops their administrative abilities. An active participation makes them responsible and meaningful decision maker and hence their job performance improves.

Demographic factors like age, qualifications etc also play an important role in transformation of teaching and learning. With increasing age the understanding, mental thrust, teaching skills, self – efficacy and ability to begat social and compassionate atmosphere improves. An increase in qualification, increase the understanding of a teacher (subject and curriculum improves) and also improves his also his ability to use instructional material. Qualified teachers have an edge in planning and managing the course content, methodologies and pedagogy as compared to others. An experienced teacher can make classroom environment and curriculum lively and compassionate. With increase in experience the managerial skills and ability to adjust in the teaching profession improves as a result there is a substantial improve in quality of instructions and teaching methods.

Development and innovations in teaching is must and teaching and learning should address the social and economic problem of the society and nation. The current study is highlights the impact of attitude of job performance of teachers working in higher educational institutions, however findings of this study can be applied to primary, secondary education too, after taking into account the differences in the work environment and the profile of the learners. The conceptual model present in the study suggests a comprehensive view of the key academic performance indicators and adds new dimensions to the existing field and may be used by administrators and academicians to find out ways to improve productivity and performance. The inter-relationship between components of attitude and components of job performance is a new dimension and will enable the micro engineering of attitude and job performance for a better results and prospects

Following points are important to strengthen the higher education system in India

- Before appointment of a teachers in higher educational institutions the appropriateness of the resource perform must be strengthen via test of psychological attributes like attitude. For existing teacher attitude inventory test should be must to judge their respective judgmental aspects towards teaching and learning process and their profession.

- Every teacher is an asset for the institute therefore their motivation and proper evaluation should be one of the prime responsibility of institutions. Management and policy makers should try to find out new performance indicators to evaluate performance of a teacher.
- Higher educational institution should always try to maintain a stimulating, supportive and learning environment to manage the attitude of a teacher in positive direction.
- An optimal combination of age, educational qualifications and experience should be considered to decide the kind of training to be given to teachers.
- Mediating impacts of other internal and external variables must be considered on attitude and job performance while going for any kind of policy formulation or evaluation

5.4 Conclusions

A good and knowledgeable teacher having poor attitude cannot deliver and fulfill his task proficiently, hence attitude of a teacher should be guided and managed in a proper way. The poor quality of teachers and taught is not only hindering the progress of country and society but also preventing the system from harnessing the benefits of innovations that has taken place till date. To strengthen the higher education sector in India quality the quality teachers and quality teaching both are must.

On the basis of study conducted it can be concluded that there is a significant impact of attitude on job performance. Demographic factors like age, qualification and experience have a positive impact on job performance as they improves the managerial skills and ability and help teachers in adjusting to profession. Gender doesn't impact the job performance of teachers

The knowledge of impact of attitude on job performance will help in attracting, developing and retaining well qualified resource person/ teachers and strengthen micromanagement of teaching and learning at grass root level leading to qualitative and balanced growth of higher education in India. Knowledge of the inter- relationship between demographic factors like gender, age, qualifications and experience on job performance will help in development and strengthening of suitable scale/parameters for recruitment, evaluation, retaining and development of teachers. The information related to impact of attitude on job performance of teachers will help in motivation and development leading to accessibility, quality and growth of higher education system and structure in India. The model presented in the study suggests a comprehensive view of the key academic performance indicators and also explains the impact of attitude on job performance.

Teachers having positive attitude are mostly successful in their profession.

5.5 Managerial Implications

5.5.1 Institutional Level Implications

Being 3rd largest in the world the Indian higher education system has witnessed proliferation in the number of colleges and universities. Out of all major challenges attracting, developing and retaining well qualified resource person/ teachers and quality teaching are major challenges. The inputs from research will present an opportunity to reframe methodologies at institutional level to develop and strengthen the teaching and learning environment through engineering and managing attitude of a teacher. It may help in shaping learning experiences of the learners as it will smooth the process with the help of which students carry out the learning activities. With the help of the findings of the research, management of institutions can get valuable inputs to prepare a psychological warfare to nurture and develop positive attitude of a teacher when required.

5.5.2 Policy Level Implications

Without a knowledgeable, effective and efficient workforce neither a society, nor a country can prosper. Presently despite of a considerate effort of government the quality of the output of higher education in India is a big question mark. The deteriorating academic and professional performance, poor application of theory, less competent diagnostic, analytical, technical and human skills of students has brought a lot of criticism on the performance and versatility of a teacher. The professional knowledge and its actual implementation or intention to implement may differ within and outside the state and this may hamper the interest of stakeholders of higher education. Therefore the knowledge of psychological attributes like attitude of a teacher towards its profession is much needed to understand how a teacher actually related his personal and professional characteristics, beliefs to his duties and classroom practices? The present research work will provide a base to apex agencies like UGC and AICTE as well as the government to understand that how the components of attitude correlates with overall attitude as well as how the job performance correlates to its components. It will help the policy makers to draft more suitable scale/parameters for recruitment, evaluation and development of teachers at higher

education level. The inputs from research will also assist in upgrading the policy related to higher education in India.

5.5.3 Managerial Implications

At present system performance of a teacher is judged largely on the basis of research, co-curricular activities, teaching and learning practice, participation in academic and administrative etc however there is an increasing need to make provisions for psychological attributes like attitude in appointment and evaluations. The inputs from research will add more dimensions to key performance indicators of a teacher and will also add to the performance evaluation dimensions of a teacher. Therefore, management could out the task of performance valuation more accurately. It will also lead to strengthening the association between teachers and institutions. The information related to correlation between components of attitude and performance parameters will give inputs to management to work upon motivation and management of the intellectual capitals. It will lead to increment in quality and dimensions of teaching and will improve the teaching and learning environment. The inputs from the work will also help in managing the psychological attributes of a teacher and helping him to perform and deliver better. Furthermore the micromanagement of the relationship between teacher and stakeholder becomes possible by concentrating on the correlations of different components of attitude with the key performance areas of job performance.

5.5.4 Implications for Teachers

People with positive attitude generally have good interpersonal skills and are efficient in imbibing the social and technical aspects of job/ performance. The work will impart a fair idea to teachers, about the composition and functions of attitude and will also explain to them how the components of attitude are related and impacting the job performance and its parameters. It will help the teacher in developing critical thinking, shaping/planning optimal delivery resulting in better learning experiences. The knowledge derived from present research work may also help the teacher to find out innovative ways to improve productivity and performance. It may also help the teacher to adapt and develop a positive way to eliminate psychological pressure and stress. The knowledge derived from present work will help teachers to improve their job performance trough effective planning of lectures and matching their respective frequencies to that of the need and expectations of students.

5.5.5 Theoretical Implications

The paradigm shift in higher education from teaching to learning, changes in mindsets of teachers and learners has posed challenges to higher education. The output of higher education in India is somewhat different from what actually was needed in terms of quality. Similar results were also concluded in the work of Saravanakumar & Dev (2020), Kakati (2018), Hiremath & Albal (2016) and Chahal (2015). The positive attitude of a person/ teacher impacts his job performance positively and makes the output more meaningful, similar results were highlighted in the work of Offorbike, Nnadi & Agu (2018), Rahiman & Kodikal (2017) and Kavitha & Venkateswaran (2015). Gender is having no impact on job performance of a teacher in higher educational institutions; similar conclusions were drawn by Shah & Udgaonkar (2018), Wanakacha, Aloka & Nyaswa (2018), Sarani & Rezaee (2017) and Aytac (2015) in their work. Demographic variables like age and experience impacts Job performance positively, similar results was obtained by Kinney & Smith (1992), however the work of Irvine (2019) and Chaithra & Hiremath (2018) shows that age and experience doesn't impacts Job performance

5.6 Limitations of Research

Some of the important limitations of the research are mentioned below

- The study does not cover a descriptive study of factors responsible for shaping attitude of a teacher.
- This study is a self-assessment study; Attitude and Job performance are measured on self-assessment basis and hence the chances of biasness cannot be ruled out.
- The study doesn`t covers the learners impact and competency of a teacher in shaping attitude.
- The study doesn't cover the inter-comparison of Impact of attitude on job performance after an interval of time.
- The study doesn't cover impact of attitude on job performance of a teacher with change in streams/course taught and environment.
- The impact of environment on inter-relationship between attitude and job performance not covered in the study.

- The study was confined to only to Delhi NCT not to other tier-2, tier -3 cities, hence the results may vary.

5.7 Scope of Future Research

The present research is about assessing the impact of attitude on job performance of teachers in higher education institution institutions. The objectives considered for the present study were well mate however there is a scope of future research. Some of the related fields in which future research could be conducted are mentioned below

- What factors shapes attitude of a teacher and their individual impact on Job performance
- How the external environment impacts the inter-relationship between attitude and job performance.
- How learner impacts attitude of a teacher in higher educational institutions.
- How competency of a teacher facilitates his/ her attitude towards teaching.
- How variables like employee empowerment, organizational structure, work environment, virtual learning, technology, pedagogy etc. influence attitude and how it impacts job performance
- How the relationship between attitude and job performance changes over a period of time
- How the impact of attitude on Job performance changes with change in streams/ courses and pedagogy in higher education institutions
- Longitudinal studies of impact of organizational interventions on changes in attitudes and their result on job performance

5.8 Summary of the Chapter

The chapter is the final crux of the study undertaken and presents the findings of investigate in a systematic manner. The finding of the study highlights the impact of attitude on job performance of teachers in higher education in India. The findings also correlate the demographic factor like age, income and qualifications to job performance. Managerial implications of the findings and its use by institutions, policymakers and teachers are also highlighted along with its importance in holistic growth of the higher education sector in India. The future scope outline the possible grounds to undertake research related to the topic that has not addressed by the current work. The chapter concluded the overall work undertaken in light of the objectives considered. The limitations of the study undertaken have also been discussed in the chapter.

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APPENDICES

Appendix – A

Questionnaire

Dear Sir/ Madam

I am a Ph.D. scholar of ICFAI University and am currently doing research on "Impact of Self Perceived Attitude on Job Performance of Teaching Staff". In this connection, I am doing a perception survey of University/ College teachers in NCR. You are kindly requested to fill the following Questionnaire. The data captured will be kept confidential and will be used only for academic research purposes.

Name……
Name of the Institution ……..
Designation…….
Contact Number…….
E mail……..

Profile of the Institution

University ☐ Engineering College ☐
Degree College ☐ Management College ☐
Others ☐

Nature of the Institution

Government Financed/ Aided ☐ Self Financed ☐
Others ☐

Demographic Profile

Age of the respondent

Less than 30 Years ☐ 31 Years to 40 years ☐
41 years to 50 years ☐ 51 years and above ☐

Your Qualifications

Graduate ☐ B.Ed./ M.Ed. ☐
M. Tech./ M. Sc./ M.C.A. ☐ M.A./M.B.A./ M.Com. ☐
Ph.D. ☐ Qualified UGC- NET Exam ☐

Gender

Male ☐ Female ☐ Others ☐

Total Salary, including perquisites (Rs. Per Month)

20 k – 35 k ☐ 35 k – 50 k ☐

50 k – 65 k ☐ 65 k and above ☐

Experience in Academics (in Years)

Less than 5 years ☐ 6 years to 10 years ☐

11 years – 15 years ☐ 16 years – 20 years ☐

More than 20 Years ☐

Instructions to fill the questionnaire

The questionnaire consists of 2 parts, Part A covers attitude, Part B job Performance

You are requested to put a tick mark against option depending upon your knowledge/ preference and experience. Options are

- HA – Highly Agree
- A – Agree
- N – Neutral
- D – Disagree
- HD – Highly Disagree

Part - A						
Sl. No	**Statements**	**HA**	**A**	**N**	**D**	**HD**
1	If I had a son entering college, I would have encouraged him to become a teacher as teaching has a bright future.					
2	I give proper importance to Students behavior and aptitude and I always try to clarify their doubts.					
3	Teachers cannot satisfy intellectually superior students therefore they should not be allowed to ask questions in the class					
4	The place of the student should not be supreme in class room teaching as they often talk nonsense					
5	I want to take up the teaching profession only because my parents wish so, I believe those who fail in other field usually become a teacher.					
6	Back-benchers do not get proper attention in class-room teaching as there is a distance between students and teacher.					
7	Teaching methods of the past were better than those of to-day, as today's teaching makes teachers lazy					
8	I do not give much attention to the group activities of students and the Individual differences among them.					

9	I believe that Students are generally sincere and they learn best by doing.					
10	Students can become good citizens only when teachers are good teachers					
11	Just one method of teaching is not suitable for all the students because different students have different abilities					
12	Teaching work becomes more impactful and easy in the neat class-room as it begets social atmosphere.					
13	Teachers are the leaders who make the students learn more though love than by punishment					
14	I don't want to be into teaching profession, as it is not a good way to serve people.					
15	I feel that teachers are not free to express their views and are held responsible for failure of students					
16	There should be no union in school as Students do not live together in harmony with one another					
17	I respect everybody and pays attention to students.					
18	I take pride in telling that I am a teacher and I am having full command on the subject that I teach.					
19	I pay due attention to the special abilities of students and always try to teach as per their abilities so that all of them can understand what I teach					
20	I always respect the student's right to express-disagreement with what the teacher says.					
21	I will not take up any other job except teaching, as it is very stimulating profession					
22	A teacher's job is primarily of teachings and explaining the subject matter to students hence they should not be strict in dealing with them					
23	Teachers should not give freedom to the students to think and learn in order to make them work hard					
24	Warm and Friendly relationship between the teacher and the students is essential for learning					
25	I feel that bright and talented students often suffer in class-room teaching as principle of "learning by doing" cannot be implemented in class room					
26	I always keep students informed of their progress and do what they say.					
27	Teaching practices needed to be innovative to make the class room teaching lively					
28	Teachers should make lesson interesting for students					
29	Teachers are boastful and they do not determine the moral standards of a nation					
30	Now-a-days students have become mischievous and undisciplined, so teachers should inflict corporal punishment on					

	them.					
31	Class-room teaching strengthens the desire of Students to learn as they gain a lot through the revision of the lessons					
32	Teaching profession appears to be interesting only in the beginning and have more disadvantages than advantages hence one should not even dream of becoming a teacher in his life					
33	Students should be given freedom to express their views and should not be let down before the class					
34	Different activities performed by the students should not have a place in their final Evaluation as they can do anything to get through Examination					
35	No occupation is better than the teaching profession as it develops personality and character					
36	Most of the teachers become teachers to make more money and there is nothing wrong in it, hence they behave accordingly					
37	Class-room teaching does not inculcate a feeling of self confidence in the students as it is book-centered rather than student centered					
38	Students observe discipline only in the school and are dis-interested in National Problems.					
Part - B						
1	I am rated to be the best teacher by students in our class.					
2	All my students perform very well in the examination because they understood what I taught in the class.					
3	All of my students know how to practice what I taught in the class.					
4	For the betterment of my students I counsel their parents, if needed					
5	My student likes my class because they find them interesting.					
6	I do not try to ensure and develop strong moral character in my students					
7	I give proper importance to Students behavior					
8	I always monitor my performance on the basis of student's performance in the subject that I teach.					
9	I follow professional codes of a teacher and mentor my students to develop their own opinion and line of thinking					
10	I always come to Institution/ college on time					
11	I am always fulfilling my assigned duties and activities on time.					
12	I can guide projects at undergraduate/ Post graduate levels/ Ph.D. Level/ Post Doctoral level					
13	I read research papers and get updated with the latest in my field					
14	I deliver at least one lecture/talk in conferences/ seminars every semester.					

15	I always participation in academic and administrative committees.					
16	I generally accept additional academic administrative responsibilities other than teaching, as they increase the versatility of mine.					
17	I participate in the faculty development programmes, as they help in improving my teaching					
18	I interact with industrial personnel and participate in at least one industrial consultancy project every year to improve my knowledge and skills.					
19	I always play an active role in management of the institution.					
20	I always participate and conducts/ assist in conduction of National/ International Seminars/ Conferences/ Workshops					
21	I attend short term training and refresher courses regularly to ensure my professional development.					
22	I always ensure participation of students in learning process and other activities.					
23	I always help weak students on the basis of their performance in examination					
24	I actively engaged in mentoring/ coaching students.					
25	I am actively engaged in developing/ designing the course content and curriculum for students					
26	I do not respond to the student's queries inside and outside the classroom					
27	I always participation in examination, paper setting and evaluations, because it makes me more versatile.					
28	I use practical and innovative examples to make the topic more interesting and relevant.					
29	I always organize remedial classes for students.					

Appendix – B

List of Government aided and Self Financed Institutions/ Colleges / Universities in *South Zone* of NCT, Delhi

Sl No.	Name	Zone/ Location
1	Jamia Hamdard University	South Delhi
2	Priyar Management and Computer College	South Delhi
3	Asia - Pacific Institute of Management	South Delhi
4	Jamia Milia Islamia University	South Delhi
5	G.B. Pant Government Engineering College	South Delhi
6	International Management Center	South Delhi
7	Vastu Kala Academy	South Delhi
8	Meera Bai Institute of Technology	South Delhi
9	TERI University	South Delhi
10	IMM- Fostima Business School (IFBS)	South Delhi
11	Banarsidas Chandiwala Institute of Information Technology	South Delhi
12	Jagannath International Management School	South Delhi
13	Sri Sharda Institute of Indian Management Research	South Delhi
14	BSF Polytechnic	South Delhi
15	Entrepreneurship & Management Process International	South Delhi
16	International Polytechnic for Women	South Delhi
17	International Management Institure	South Delhi
18	IILM Institute for Higher Education	South Delhi
19	Center for Management Education-AIMA	South Delhi
20	Delhi Institution of Pharmachutical Science and research	South Delhi
21	New Delhi Institute of Management	South Delhi
22	Aditya Institute of Technology	South Delhi
23	FORE School of Management	South Delhi
24	Mirambika Institute of Science and Technology	South Delhi
25	Acharya Narendra Dev	South Delhi
26	College of Vocational Studies	South Delhi
27	Delhi Coll. of Arts & Comm.	South Delhi
28	Deshbandhu College	South Delhi
29	Dyal Singh College	South Delhi
30	Gargi College	South Delhi
31	Kamla Nehru College	South Delhi
32	Lady Shri Ram College	South Delhi
33	P. G .D. A.V. College	South Delhi
34	Rajkumari Amrit Kaur College of Nursing	South Delhi

35	Sri Aurobindo College	South Delhi
36	Shaheed Bhagat Singh College	South Delhi
37	Delhi Pharmaceutical Science and Research University	South Delhi
38	Indian Institute of Foreign Trade	South Delhi
39	Indian Institute of Mass Communication	South Delhi
40	Indian Institute of Technology, Delhi	South Delhi
41	Indira Gandhi National Open University	South Delhi
42	Indraprastha Institute of Information Technology	South Delhi
43	Institute of Liver and Biliary Sciences	South Delhi
44	National Institute of Fashion Technology	South Delhi
45	Shri Lal Bahadur Shastri Rashtriya Sanskrit Vidyapeetha	South Delhi
46	National University of Educational Planning and Administration	South Delhi
47	National Power Training Institute	South Delhi
48	NIIT	South Delhi
49	Aptech	South Delhi
50	Arena Animation	South Delhi
51	Dr. B.R. Sur Homeopathic Medical CollegeHospital and Research Centre	South Delhi
52	Delhi Institute of Heritage Research and Management	South Delhi
53	Guru Gobing Singh Indraprastha University	South West Delhi
54	Baba Haridass College of Pharmacy & Technology	South West Delhi
55	Integrated Ititute of Technology	South West Delhi
56	Lal Bahadur Shastri Institute of Management	South West Delhi
57	Appejay School of Management	South West Delhi
58	Ch. Brahm Prakash Government Engineering College	South West Delhi
59	Rajokari Institute of Technology	South West Delhi
60	Netaji Subas Institute of Technology	South West Delhi
61	Fortune Institute of International Business	South West Delhi
62	Amity School of Engineering & Technology	South West Delhi
63	DPC Institute of Management	South West Delhi
64	Atma Ram Sanatan Dharam	South West Delhi
65	Bhagini Nivedita Coll	South West Delhi
66	Bhaskaracharya College of Applied Sciences	South West Delhi
67	Deen Dayal Upadhyay Coll.	South West Delhi
68	Jesus & Mary College	South West Delhi
69	Moti Lal Nehru College	South West Delhi
70	Ram Lal Anand College	South West Delhi
71	Sri Venkateswara College	South West Delhi
72	Indian Statistical Institute	South West Delhi
73	National Institute of Technology, Delhi	South West Delhi

74	Rashtriya Sanskrit Sansthan	South West Delhi
75	All India Institute of Medical Sciences	South West Delhi
76	Vardhman Mahavir Medical College	South West Delhi
77	Picasso Animation College	South West Delhi

List of Government aided and Self Financed Institutions/ Colleges / Universities in *North Zone* of NCT, Delhi

Sl No.	Name	Zone/ Location
1	Vivekananda Institute of Professional Studies- Technical Campus	North Delhi
2	Delhi Institute of Advanced Studies	North Delhi
3	Bhagwan Parshuram Institute of Technology	North Delhi
4	Aryabhatt Institute of Technology	North Delhi
5	R.C. Institute of Technology	North Delhi
6	Daulat Ram College	North Delhi
7	Hans Raj College	North Delhi
8	Hindu College	North Delhi
9	Institute of Economic Growth	North Delhi
10	Kirori Mal College	North Delhi
11	Maulana Azad Medical College	North Delhi
12	Miranda House	North Delhi
13	Ramjas College	North Delhi
14	School of Corres.Courses	North Delhi
15	SGTB Khalsa College	North Delhi
16	Shri Ram Coll.of Comm.	North Delhi
17	St. Stephen's College	North Delhi
18	Sukhdev College of Business Studies	North Delhi
19	Delhi Institute of Computer Science)	North Delhi
20	University College of Medical Sciences & Guru Tegh Bahadur Hospital	North Delhi
21	V. P. Chest Institute	North Delhi
22	Zakir Hussain College	North Delhi
23	Ambedkar University Delhi	North Delhi
24	Subramaniam Bharti College of Science and Technology	North West Delhi
25	Sri Sukhmani Institute of Management	North West Delhi
26	Kasturba Polytecnic for Women	North West Delhi
27	Banarsidas Chandiwala Instituteof Professional Studies	North West Delhi
28	Chhotu Ram Rural Institute of Technology	North West Delhi

29	Rukmini Devi Institute of Advanced Studies	North West Delhi
30	Guru Nanak Dev Polytechnic	North West Delhi
31	HMR Institute of Technology and Management	North West Delhi
32	Jagan Institute of Management Studies Technical Campus	North West Delhi
33	Gitarratan International Business School	North West Delhi
34	Maharaja Surajmal Institute of Technology	North West Delhi
35	Aditi Mahavidyalaya	North West Delhi
36	Keshav Puram Mahavidyalaya	North West Delhi
37	Lakshmibai College	North West Delhi
38	Satyawati College	North West Delhi
39	Sri Guru Gobind Singh College of Commerce	North West Delhi
40	Swami Shradhanand Coll.	North West Delhi
41	Delhi Technological University	North West Delhi
42	Institute of Applied Manpower Research	North West Delhi
43	Indian Law Institute	North East Delhi

List of Government aided and Self Financed Institutions/ Colleges / Universities in *East Zone* of NCT, Delhi

Sl No.	Name	Zone/ Location
1	Ambedkar Institute of Technology	East Delhi
2	Bhai Parmanand Institute of Business Studies	East Delhi
3	AmbedkaInstitute of Advanced Communication Technologies and Research	East Delhi
4	Shri Akhilesh Das College of Engineering	East Delhi
5	Bhim Rao Ambedkar Coll.	East Delhi
6	Delhi College of Engineering	East Delhi
7	Maharaja Agrasen College	East Delhi
8	Rajguru College for AppliedSciences for Women	East Delhi
9	Shyam Lal College	East Delhi
10	Vivekananda College	East Delhi

List of Government aided and Self Financed Institutions/ Colleges / Universities in *West Zone* of NCT, Delhi

Sl No.	Name	Zone/ Location
1	Bharati Vidyapeeth University, Institute of Management and	West Delhi

	Research	
2	MBS School of Planning & Architecture	West Delhi
3	Management Education and Research Institute	West Delhi
4	Guru Nanak Institute of Management and Research	West Delhi
5	International Institute of Health Management Research	West Delhi
6	Maharaja Agrasen Institute of Technology	West Delhi
7	Institute of Information Technology and Management	West Delhi
8	Guru TeghBahadur Institute of Technology	West Delhi
9	Indira Gandhi Inst. of Phy. Edu., Sports & Science	West Delhi
10	Janki Devi Mahavidalaya	West Delhi
11	Rajdhani College	West Delhi
12	Shivaji College	West Delhi
13	S. P. Mukherjee College	West Delhi

List of Government aided and Self Financed Institutions/ Colleges / Universities in *Central Zone* of NCT, Delhi

Sl No.	Name of Colleges	Zone/ Location
1	Sarada Ukil School of Art	Central Delhi
2	PUSA Institute of Technology	Central Delhi
3	Delhi Institute of Tool Engineering	Central Delhi
4	Bhartiya VidyaA Bhavan`s Usha & Lakshmi Mittal Institute of Management	Central Delhi
5	Bharati College	Central Delhi
6	Kalindi College	Central Delhi
7	Indian Agricultural Research Institute	Central Delhi
8	Indira Gandhi Delhi Technical University for Women	Central Delhi
9	Indian School of Business Management and Administration	Central Delhi
10	National Museum Institute of the History of Art, Conservation and Museology	Central Delhi
11	RK Films & Media Academy	Central Delhi
12	Lady Hardinge Medical College	New Delhi
13	Lady Irwin College	New Delhi
14	Maitreyi College	New Delhi
15	Mata Sundri College	New Delhi

List of University, Colleges, Autonomous Institutions in NCT (National Capital Territory, Delhi) either Fully funded or partly Funded by Central or State Government			
Sl No	**Name of the Higher Education Institution**	**Nature**	**Government Aided**
1	Indira Gandhi National Open University	Central University	Yes
2	Jamia Millia Islamia	Central University	Yes
3	Jawaharlal Nehru University	Central University	Yes
4	South Asian University	Central University	Yes
5	University of Delhi	Central University	Yes
6	Ambedkar University Delhi	State University	Yes
7	Delhi Pharmaceutical Science and Research University	State University	Yes
8	Delhi Technological University	State University	Yes
9	Guru Gobind Singh Indraprastha University	State University	Yes
10	Indira Gandhi Delhi Technical University for Women	State University	Yes
11	Indraprastha Institute of Information Technology	State University	Yes
12	National Law University, Delhi	State University	Yes
13	Indian Agricultural Research Institute	Deemed University	Yes
14	Indian Institute of Foreign Trade	Deemed University	Yes
15	Indian Law Institute	Deemed University	Yes
16	Indian Statistical Institute	Deemed University	Yes
17	Institute of Liver and Biliary Sciences	Deemed University	Yes
18	Jamia Hamdard	Deemed University	Yes
19	National Institute of Fashion Technology	Deemed University	Yes
20	National Museum Institute of the History of Art, Conservation and Museology	Deemed University	Yes
21	National University of Educational Planning and Administration	Deemed University	Yes
22	Rashtriya Sanskrit Sansthan	Deemed University	Yes
23	School of Planning and Architecture	Deemed University	Yes
24	Shri Lal Bahadur Shastri Rashtriya Sanskrit	Deemed	Yes

	Vidyapeetha	University	
25	TERI University	Deemed University	Yes
26	All India Institute of Medical Sciences	Autonomous Institution	Yes
27	Indian Institute of Mass Communication	Autonomous Institution	Yes
28	Indian Institute of Technology, Delhi	Autonomous Institution	Yes
29	National Institute of Technology, Delhi	Autonomous Institution	Yes
30	Acharya Narendra Dev	Affiliated to Delhi University	Yes
31	Aditi Mahavidyalaya	Affiliated to Delhi University	Yes
32	Atma Ram Sanatan Dharam	Affiliated to Delhi University	Yes
33	Ayurvedic & Yunani Tibbia Coll.	Affiliated to Delhi University	Yes
34	Bhagini Nivedita Coll. (W)	Affiliated to Delhi University	Yes
35	Bharati College	Affiliated to Delhi University	Yes
36	Bhaskaracharya College of Applied Sciences	Affiliated to Delhi University	Yes
37	Bhim Rao Ambedkar Coll.College of Arts	Affiliated to Delhi University	Yes
38	College of Vocational Studies	Affiliated to Delhi University	Yes
39	College of Pharmacy	Affiliated to Delhi University	Yes
40	Daulat Ram College(W)	Affiliated to Delhi University	Yes
41	Deen Dayal Upadhyay Coll.	Affiliated to Delhi University	Yes
42	Delhi Coll. of Arts & Comm.	Affiliated to Delhi University	Yes
43	Delhi College of Engineering	Affiliated to Delhi University	Yes
44	Delhi Institute of Technology	Affiliated to Delhi University	Yes
45	Deshbandhu College (Morning and Evening)	Affiliated to Delhi University	Yes
46	Dyal Singh College(Morning and Evening)	Affiliated to Delhi University	Yes

47	Gargi College (W)	Affiliated to Delhi University	Yes
48	Hans Raj College	Affiliated to Delhi University	Yes
49	Hindu College	Affiliated to Delhi University	Yes
50	Indira Gandhi Inst. of Phy. Edu., Sports & Science	Affiliated to Delhi University	Yes
51	Indraprastha College (W)	Affiliated to Delhi University	Yes
52	Institute of Economic Growth	Affiliated to Delhi University	Yes
53	Institute of Home Economics	Affiliated to Delhi University	Yes
54	Janki Devi Mahavidalaya (W)	Affiliated to Delhi University	Yes
55	Jesus & Mary College (W)	Affiliated to Delhi University	Yes
56	Kalindi College (W)	Affiliated to Delhi University	Yes
57	Kamla Nehru College(W)	Affiliated to Delhi University	Yes
58	Keshav Puram Mahavidyalaya	Affiliated to Delhi University	Yes
59	Kirori Mal College	Affiliated to Delhi University	Yes
60	Lady Hardinge Medical College	Affiliated to Delhi University	Yes
61	Lady Irwin College (W)	Affiliated to Delhi University	Yes
62	Lady Shri Ram College (W)	Affiliated to Delhi University	Yes
63	Lakshmibai College (W)	Affiliated to Delhi University	Yes
64	Maharaja Agrasen College	Affiliated to Delhi University	Yes
65	Maharishi Valmiki College of Education	Affiliated to Delhi University	Yes
66	Maitreyi College (W)	Affiliated to Delhi University	Yes
67	Mata Sundri College (W)	Affiliated to Delhi University	Yes
68	Maulana Azad Medical College	Affiliated to Delhi University	Yes
69	Miranda House (W)	Affiliated to Delhi	Yes

		University	
70	Moti Lal Nehru College(Morning and Evening)	Affiliated to Delhi University	Yes
71	Nehru Homoepathic College	Affiliated to Delhi University	Yes
72	P. G .D. A.V. College(Morning and Evening)	Affiliated to Delhi University	Yes
73	Rajdhani College	Affiliated to Delhi University	Yes
74	Rajguru College for AppliedSciences for Women	Affiliated to Delhi University	Yes
75	Rajkumari Amrit Kaur College of Nursing	Affiliated to Delhi University	Yes
76	Ramjas College	Affiliated to Delhi University	Yes
77	Ram Lal Anand College(Morning and Evening)	Affiliated to Delhi University	Yes
78	Satyawati College(Morning and Evening)	Affiliated to Delhi University	Yes
79	School of Corres.Courses	Affiliated to Delhi University	Yes
80	SGTB Khalsa College(Morning and Evening)	Affiliated to Delhi University	Yes
81	Shaheed Bhagat Singh College(Morning and Evening)	Affiliated to Delhi University	Yes
82	Shivaji College	Affiliated to Delhi University	Yes
83	Shri Ram Coll.of Comm.	Affiliated to Delhi University	Yes
84	Shyam Lal College(Morning and Evening)	Affiliated to Delhi University	Yes
85	S. P. Mukherjee Coll. (W)	Affiliated to Delhi University	Yes
86	Sri Aurobindo College(Morning and Evening)	Affiliated to Delhi University	Yes
87	Sri Guru Gobind Singh College of Commerce	Affiliated to Delhi University	Yes
88	Sri Venkateswara College	Affiliated to Delhi University	Yes
89	St. Stephen's College	Affiliated to Delhi University	Yes
90	Sukhdev College of Business Studies	Affiliated to Delhi University	Yes
91	Swami Shradhanand Coll.	Affiliated to Delhi University	Yes

92	University College of Medical Sciences & Guru Tegh Bahadur Hospital	Affiliated to Delhi University	Yes
93	Vivekananda College (W)	Affiliated to Delhi University	Yes
94	V. P. Chest Institute	Affiliated to Delhi University	Yes
95	Zakir Hussain College(Morning and Evening)	Affiliated to Delhi University	Yes
96	Ambedkar Institute of Technology	Affiliated to GGSIPU	Yes
97	Mahila Institute of Technology (for Women)	Affiliated to GGSIPU	Yes
98	Vardhman Mahavir Medical College	Affiliated to GGSIPU	Yes
99	Institute of Applied Manpower Research	Affiliated to GGSIPU	Yes
100	Bhai Parmananad Institute of Business Studies	Affiliated to GGSIPU	Yes
101	National Power Training Institute	Affiliated to GGSIPU	Yes
102	Dr. B.R. Sur Homeopathic Medical CollegeHospital and Research Centre	Affiliated to GGSIPU	Yes
103	Delhi Institute of Heritage Research and Management	Affiliated to GGSIPU	Yes
104	DAV Institute of Management	Center of Learning of GGSIPU	Yes
105	Academy JSS of Technical Education	Center of Learning of GGSIPU	Yes
Source - 1 - https://en.wikipedia.org/wiki/List_of_institutions_of_higher_education_in_Delhi			
Source - 2 - http://delhi.gov.in/wps/wcm/connect/doit_hedu/HEDu/Home/Colleges+Sponsered+by+Delhi+Govt/Govt+Colleges+Affiliated+To+GGSIPU/)			
Source - 3 - http://delhi.gov.in/wps/wcm/connect/DoIT/delhi+govt/default/list+of+colleges			

List of Self Financed/ Private Colleges, Institutions in NCT (National Capital Territory, Delhi)			
Sl No	**Name of the Higher Education Institution**	**Affiliations**	**Self Financed**
1	Amity Institute of Education	Affiliated to GGSIPU	Yes
2	Amity LawSchool	Affiliated to GGSIPU	Yes
3	Amity School of Engg. & Technology	Affiliated to GGSIPU	Yes
4	Ansal Institute of Technology	Affiliated to GGSIPU	Yes
5	Asia-Pacific Institute of Management	Affiliated to GGSIPU	Yes
6	Banarsidas Chandiwala Institute of Hotel Mgt. & Catering Tech.	Affiliated to GGSIPU	Yes
7	Banarsidas Chandiwala Institute of Information Technology	Affiliated to GGSIPU	Yes
8	Bharati Vidyapeeth's College of Engineering	Affiliated to GGSIPU	Yes
9	BLS Institute of Management	Affiliated to GGSIPU	Yes
10	CES College of Educational Research & Training	Affiliated to GGSIPU	Yes
11	COMM-ITCareerAcademy (Minority Educational Institution)*	Affiliated to GGSIPU	Yes
12	Delhi Institute of Advanced Studies	Affiliated to GGSIPU	Yes
13	Delhi School of Professional Studies & Research	Affiliated to GGSIPU	Yes
14	Electronics Research & Development Centre of India (Ministry of Information Technology, Govt. of India) For MCA Programme	Affiliated to GGSIPU	Yes
15	Fore School of Management	Affiliated to GGSIPU	Yes
16	Gitarattan Institute of Advanced Studies & Training	Affiliated to GGSIPU	Yes
17	Guru Nanak Institute of Management	Affiliated to GGSIPU	Yes
18	GuruPremsukhMemorialCollege of Engg.	Affiliated to GGSIPU	Yes
19	Guru Tegh Bahadur Institute of Technology (Minority Educational Institution)**	Affiliated to GGSIPU	Yes
20	Ideal Institute of Management and Technology	Affiliated to GGSIPU	Yes
21	Institute of InformationTechnology and Management	Affiliated to GGSIPU	Yes
22	Institute of Rehabilitation Medicine & Allied Sciences (Minority Education Institution)*	Affiliated to GGSIPU	Yes
23	Jagan Institute of Management Studies	Affiliated to GGSIPU	Yes
24	Jagannath International Management School	Affiliated to GGSIPU	Yes

25	Kalka Institute for Research & Advanced Studies	Affiliated to GGSIPU	Yes
26	Lal Bahadur Shashtri Institute of Management	Affiliated to GGSIPU	Yes
27	Madhu Bala Institute of Communication & Electronic Media	Affiliated to GGSIPU	Yes
28	Maharaja Agrasen Institute of Technology	Affiliated to GGSIPU	Yes
29	Maharaja Surajmal Institute	Affiliated to GGSIPU	Yes
30	Maharaja Surajmal Institute of Technology.	Affiliated to GGSIPU	Yes
31	Management Education & Research Institute	Affiliated to GGSIPU	Yes
32	Mother Teresa Institute of Management	Affiliated to GGSIPU	Yes
33	New Delhi Institute for Information Technology	Affiliated to GGSIPU	Yes
34	New DelhiInstitute of Management	Affiliated to GGSIPU	Yes
35	PradeepMemorialComprehensiveCollege of Education	Affiliated to GGSIPU	Yes
36	R.C. Institute of Technology	Affiliated to GGSIPU	Yes
37	Rukmini Devi Institute of Advanced Studies	Affiliated to GGSIPU	Yes
38	Sirifort College of Computer Technology & Management	Affiliated to GGSIPU	Yes
39	St. Joan's College of Vocational Studies	Affiliated to GGSIPU	Yes
40	Sushant Schoolof Art and Architecture	Affiliated to GGSIPU	Yes
41	Technia Institute of Advanced Studies	Affiliated to GGSIPU	Yes
42	Titiksha Institute of Education	Affiliated to GGSIPU	Yes
43	Trinity Institute of Higher Education	Affiliated to GGSIPU	Yes
44	T.V.B. School of Habitat Studies	Affiliated to GGSIPU	Yes
45	Vastu KalaAcademy	Affiliated to GGSIPU	Yes
46	Vivekananda Institute of Professional Studies	Affiliated to GGSIPU	Yes
47	Management Education & Research Institute	Affiliated to GGSIPU	Yes
48	Amity Business School (Delhi Center)	Autonomous Institutes	Yes
49	DICS (Delhi Institute of Computer Science)	Autonomous Institutes	Yes
50	RK Films & Media Academy, RKFMA Delhi	Autonomous Institutes	Yes
51	Aptech	Autonomous Institutes	Yes
52	Arena Animation	Autonomous Institutes	Yes
53	Indian School of Business Management and Administration	Autonomous Institutes	Yes
54	Jaypee Institute of Information Technology	Autonomous Institutes	Yes
55	NIIT	Autonomous Institutes	Yes
56	Picasso Animation College	Autonomous Institutes	Yes

57	S.B. College of Science and Technology(Subramaniam Bharti College of Science & Technology)	AICTE Approved Institutions	Yes
58	R.C. Institute of Technology	AICTE Approved Institutions	Yes
59	Sri Sukhmani Institute of Management	AICTE Approved Institutions	Yes
60	Asia-Pacific Institute of Management	AICTE Approved Institutions	Yes
61	Sarada Ukil School of Art	AICTE Approved Institutions	Yes
62	Kasturba Polytechnic for Women	AICTE Approved Institutions	Yes
63	Bharati Vidyapeeth University Institute of Management And Research	AICTE Approved Institutions	Yes
64	Vastu Kala Academy	AICTE Approved Institutions	Yes
65	International Management Centre	AICTE Approved Institutions	Yes
66	Teri University	AICTE Approved Institutions	Yes
67	MBS School of Planning & Architecture	AICTE Approved Institutions	Yes
68	Chhotu Ram Rural Institute of Technology	AICTE Approved Institutions	Yes
69	Delhi Institute of Tool Engineering	AICTE Approved Institutions	Yes
70	Imm-Fostiima Business School (Ifbs)	AICTE Approved Institutions	Yes
71	Lal Bahadur Shastri Institute of Managemenet, Delhi	AICTE Approved Institutions	Yes
72	Guru Nanak Dev Polytechnic	AICTE Approved Institutions	Yes
73	Ambedkar Institute of Advanced Communication Technologies and Research	AICTE Approved Institutions	Yes
74	Apeejay School of Management	AICTE Approved Institutions	Yes
75	Sri Sharada Institute of Indian Management Research	AICTE Approved Institutions	Yes
76	BSF Polytechnic	AICTE Approved Institutions	Yes
77	Entrepreneurship & Management Processes International	AICTE Approved Institutions	Yes
78	International Polytechnic for Women	AICTE Approved	Yes

		Institutions	
79	International Management Institute	AICTE Approved Institutions	Yes
80	Fortune Institute of International Business	AICTE Approved Institutions	Yes
81	International Institute of Health Management Research	AICTE Approved Institutions	Yes
82	IILM Institute for Higher Education	AICTE Approved Institutions	Yes
83	Bharatiya Vidya Bhavan's Usha & Lakshmi Mittal Institute of Management	AICTE Approved Institutions	Yes
84	Centre For Management Education-Aima	AICTE Approved Institutions	Yes
85	New Delhi Institute of Management	AICTE Approved Institutions	Yes
86	Dpc Institute of Management	AICTE Approved Institutions	Yes
87	Aditya Institute of Technology	AICTE Approved Institutions	Yes
88	Fore School of Management	AICTE Approved Institutions	Yes
89	Mirambika Institute of Science and Technology	AICTE Approved Institutions	Yes
Source - 1 - http://delhi.gov.in/wps/wcm/connect/doit_hedu/HEDu/Home/Colleges+Sponsered+by+Delhi+Govt/Self+Financing+Colleges/)			
Source - 2 - https://en.wikipedia.org/wiki/List_of_institutions_of_higher_education_in_Delhi)			
Source - 3 - https://www.facilities.aicte-india.org/dashboard/pages/angulardashboard.php#!/approved			

Appendix - C

List of Publications

Following is the list publications by the scholar in the research area

- Publishes a paper titled "Impact of Attitude on Job Performance of Teachers in NCR", JETIR, December 2020, pp – 1108-1116, ISSN – 2349-5162
- Publishes a paper titled "Self Perceived Attitude and Work Commitment: A Study of Higher Educational Institutions in NCT, Delhi", in ABS International Journal of Management, May 2019, VII (1), pp – 75-82, ISSN – 2319-684X
- Published a paper titled "A Comparative Study of Attitude and Job Satisfaction of Male and Female Teachers in NCR" in conference Proceeding of National Conference titled "Paradigm Shift in Management Practices for Fostering Excellence" Organized by New Delhi Institute of Management, February 2019, pp –139-145, ISBN – 978-93-86453-92-1
- Publishes a paper titled " A Comparative Study of Teaching Aptitude among teachers of Government aided and Self Financed colleges in NCR" in IUJ Journal of Management, November 2018, 6(2), pp – 1-5, ISSN – 2347-5080
- Publishes a paper titled "Impact of Attitude on Job Performance of Teaching Staff: A Theoretical Perspective" in ABS International Journal of Management, June 2018, VI (1), pp – 35-38, ISSN – 2319-684X

Appendix - D

List of presentations in Conferences and Seminars

Following is the list of presentations in conferences and seminars by the scholar in the research area

- Presented a paper titled "Impact of Attitude on Job Performance of Teachers: A Study of Higher Educational Institutions in NCT, Delhi", Doctoral Colloquium, Organized by BIT, Mesra on 14th January 2020.
- Presented a paper titled "Self Perceived Attitude and Work Commitment: A Study of Higher Educational Institutions in NCT, Delhi", International Conference on "VUCA World: Issues and Challenges", Organized by Asian Business School on 9th March 2019
- Presented a paper titled "A Study of Attitude and Work Commitment of Teachers in Government Aided and Self Financed Higher Educational Institutions in NCR", National Seminar on "Industry 4.0: A Roadmap for Indian Business Competitiveness", Organized by Asian Business School on 27th October 2018
- Presented a paper titled "Impact of Attitude on Job Performance of Teaching Staff: A Theoretical Perspective", International Conference on "Globalization & Governance: A Management Perspective", Organized by Asian Business School on 17th March 2018

Appendix - E

Details of statements in Questionnaire

Attitude (V1 to V38)		
1	V1	If I had a son entering college, I would have encouraged him to become a teacher as teaching has a bright future.
2	V2	I give proper importance to Students behavior and aptitude and I always try to clarify their doubts.
3	V3	Teachers cannot satisfy intellectually superior students therefore they should not be allowed to ask questions in the class
4	V4	The place of the student should not be supreme in class room teaching as they often talk nonsense
5	V5	I want to take up the teaching profession only because my parents wish so, I believe those who fail in other field usually become a teacher.
6	V6	Back-benchers do not get proper attention in class-room teaching as there is a distance between students and teacher.
7	V7	Teaching methods of the past were better than those of to-day, as today's teaching makes teachers lazy
8	V8	I do not give much attention to the group activities of students and the Individual differences among them.
9	V9	I believe that Students are generally sincere and they learn best by doing.
10	V10	Students can become good citizens only when teachers are good teachers
11	V11	Just one method of teaching is not suitable for all the students because different students have different abilities
12	V12	Teaching work becomes more impactful and easy in the neat class-room as it begets social atmosphere.
13	V13	Teachers are the leaders who make the students learn more though love than by punishment
14	V14	I don't want to be into teaching profession, as it is not a good way to serve people.
15	V15	I feel that teachers are not free to express their views and are held responsible for failure of students

16	V16	There should be no union in school as Students do not live together in harmony with one another
17	V17	I respect everybody and pays attention to students.
18	V18	I take pride in telling that I am a teacher and I am having full command on the subject that I teach.
19	V19	I pay due attention to the special abilities of students and always try to teach as per their abilities so that all of them can understand what I teach
20	V20	I always respect the student's right to express-disagreement with what the teacher says.
21	V21	I will not take up any other job except teaching, as it is very stimulating profession
22	V22	A teacher's job is primarily of teachings and explaining the subject matter to students hence they should not be strict in dealing with them
23	V23	Teachers should not give freedom to the students to think and learn in order to make them work hard
24	V24	Warm and Friendly relationship between the teacher and the students is essential for learning
25	V25	I feel that bright and talented students often suffer in class-room teaching as principle of "learning by doing" cannot be implemented in class room
26	V26	I always keep students informed of their progress and do what they say.
27	V27	Teaching practices needed to be innovative to make the class room teaching lively
28	V28	Teachers should make lesson interesting for students
29	V29	Teachers are boastful and they do not determine the moral standards of a nation
30	V30	Now-a-days students have become mischievous and undisciplined, so teachers should inflict corporal punishment on them.
31	V31	Class-room teaching strengthens the desire of Students to learn as they gain a lot through the revision of the lessons
32	V32	Teaching profession appears to be interesting only in the beginning and have more disadvantages than advantages hence one should not even dream of becoming a teacher in his life

33	V33	Students should be given freedom to express their views and should not be let down before the class
34	V34	Different activities performed by the students should not have a place in their final Evaluation as they can do anything to get through Examination
35	V35	No occupation is better than the teaching profession as it develops personality and character
36	V36	Most of the teachers become teachers to make more money and there is nothing wrong in it, hence they behave accordingly
37	V37	Class-room teaching does not inculcate a feeling of self confidence in the students as it is book-centered rather than student centered
38	V38	Students observe discipline only in the school and are dis-interested in National Problems.
Job Performance (VAR1 to VAR29)		
1	VAR 1	I am rated to be the best teacher by students in our class.
2	VAR 2	All my students perform very well in the examination because they understood what I taught in the class.
3	VAR 3	All of my students know how to practice what I taught in the class.
4	VAR 4	For the betterment of my students I counsel their parents, if needed
5	VAR 5	My student likes my class because they find them interesting.
6	VAR 6	I do not try to ensure and develop strong moral character in my students
7	VAR 7	I give proper importance to Students behavior
8	VAR 8	I always monitor my performance on the basis of student's performance in the subject that I teach.
9	VAR 9	I follow professional codes of a teacher and mentor my students to develop their own opinion and line of thinking
10	VAR 10	I always come to Institution/ college on time
11	VAR 11	I am always fulfilling my assigned duties and activities on time.

12	VAR 12	I can guide projects at undergraduate/ Post graduate levels/ Ph.D. Level/ Post Doctoral level
13	VAR 13	I read research papers and get updated with the latest in my field
14	VAR 14	I deliver at least one lecture/talk in conferences/ seminars every semester.
15	VAR 15	I always participation in academic and administrative committees.
16	VAR 16	I generally accept additional academic administrative responsibilities other than teaching, as they increase the versatility of mine.
17	VAR 17	I participate in the faculty development programmes, as they help in improving my teaching
18	VAR 18	I interact with industrial personnel and participate in at least one industrial consultancy project every year to improve my knowledge and skills.
19	VAR 19	I always play an active role in management of the institution.
20	VAR 20	I always participate and conducts/ assist in conduction of National/ International Seminars/ Conferences/ Workshops
21	VAR 21	I attend short term training and refresher courses regularly to ensure my professional development.
22	VAR 22	I always ensure participation of students in learning process and other activities.
23	VAR 23	I always help weak students on the basis of their performance in examination
24	VAR 24	I actively engaged in mentoring/ coaching students.
25	VAR 25	I am actively engaged in developing/ designing the course content and curriculum for students
26	VAR 26	I do not respond to the student's queries inside and outside the classroom
27	VAR 27	I always participation in examination, paper setting and evaluations, because it makes me more versatile.
28	VAR 28	I use practical and innovative examples to make the topic more interesting and relevant.
29	VAR 29	I always organize remedial classes for students.