Empirical Evidence of Factors Affecting Motivation of Academicians': a Multilevel Motivation approach

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***Abstract*:** In an academic institution motivation of academicians has an important role to play since it influences the performance of the academic institution and also the development of young generation on whom the future of the nation depends. The study aims to understand how the performance of academicians of higher education and hence the performance of higher education institutions can be improved through an understanding of factors influencing motivation of academicians at different hierarchical positions (multilevel motivation) in a higher education institution. The motivation of academicians is compared with their respective designations through the factors influencing their motivation obtained through exploratory factor analysis. To analyse the impact of various factors on academician's motivation ANOVA and Post Hoc tests were applied. The results clearly showed that the academicians working at different hierarchical levels have different factors of motivation, if a higher education institution focuses on these factors, it will improve its performance.

Key Words: Motivation; academicians; designation; hierarchical level; higher education; performance; factor analysis; factors influencing motivation; multilevel motivation; analysis of variance, Tukey Post Hoc, India.

1. Introduction

The performance of an organisation is depended on the performance of its employees. The performance of the employees, in turn, is depended upon the motivation of the employees. The motivation of the employees determines their desire and willingness to achieve the objectives o the organisation. The level of motivation will be exhibited in the enthusiasm shown by them towards their work. Motivation is vital to all organizations. Ultimately employee motivation directly impacts the productivity as well as the growth of the organisation (Nupur and Bharati, 2012). Motivation is a psychological aspect that is the foundation of the stimulation, route, and determination of deliberate actions that are goal oriented (Farhad et al, 2010). Another aspect of motivation is that it basically provides internal strength through which individuals are able to attain personal and organizational goals (Reena et al, 2009). Motivation, is derived from the word "motivate", means a move, push or influence to proceed for fulfilling want (Bulkus & Green, 2009). The employee motivation influences the organizational performance to a significant degree (Ovidiu-Iliuta, 2013). Hence, an organization must utilize the motivation aspect to achieve its goals.

The concept of employee motivation is a dominant area of research due its significance as well as its complexity. Several definitions of motivation are provided by researchers. The researchers have identified several factors which influence motivation. As already specified, that the concept of motivation is supported by several theories through different researchers. These include: Needs Hierarchy theory by Maslow (1943), Theory X & Y by McGregor (1960), Two Factor Theory by Herzberg (1959), Theory of Needs by McClelland (1961), ERG Theory by Clayton Alderfer (1972), Cognitive Evaluation Theory by Deci (1975), Goal setting Theory by Locke & Latham (2002), Reinforcement Theory Skinner (1953), Job Design Theory by Hackman & Oldham (1968), Equity theoryby Adams (1963), Expectancy theory by Vroom (1964), and further extension of expectancy theory by Porter & Lawler (1968). These theories are the base of the motivation related policies and procedures, framed by organizations. These theories provide different factors on which the employee's

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motivation depends and are been used in the organizations today to manage and to keep the employees motivated.

Indian Higher Education is a rising sector for investment in the recent past. In the Indian economy higher education has a higher contribution to the GDP. In India several universities at the central level and state level have emerged in recent past out of these some are private while some are having 'deemed to be university' status. Due to this rise in number of higher education institutionsthe performance of higher education academicians has become a major area of concern.The quality of future workforce is depended on the quality and potential of higher education academicians, which in turn is depended on their level of motivation.

Despite growing investment in education, the educational institutions of higher education are facing several challenges.Shortage of faculty is the challenge which creates utmost concern. The other challenges are related to quality of teaching and innovation as well as research practices in the country. Statistics (AISHE 2016-17) show thatthere is shortage of professorsin higher education institutions. This shortage is increasing the expectations from the current faculty. The present faculty is unable to work efficiently (Kumar Anuj & Ambrish, 2015) due to complexities in regulatory agencies, funding institutions and ambiguous guidelines. The faculty is required to deliver quality education due to mandatory accreditation. Along with the teaching a faculty needs to perform several other activities related to the society and administration. Filing and getting Patents is also emerging as a necessary challenge before the faculty.

Keeping this point in mind the present study aims to explore the difference in motivational factors for the academicians' appointed at the different hierarchical levels of Higher Education.

2. Literature Review

2.1 Motivation and its influencing factors

Motivation is one aspect which has been richly explored by several researchers. It has been explored through several surveys, studies and case studies. Hersey and Blanchard (1946) survey to explore the aspect of motivation was amongst few of the first surveys. In this survey industrial employees were asked to rank their personal preference foraround ten rewards related to job.A similar study on 1,000 industrial employees was conducted by Kovach(1987), in this study employee's preferred motivation factor was interesting work and the factor which was not preferred or motivation was sympathetic help in personal problems.

Carolyn Wiley (1995) further extended the work of Kovach (1987). He explored the factors that motivate employees in job. His study results showed that the employees at different levels in the organization have different salaries, so they may differ in their motivation to work. Hence the study concluded that employees at one level in the organisation might not be motivated by similar factors as compared to employees at another level.So when motivation of employees are assessed employees should be differentiated by income level and other demographic factors (Kovach 1980). The study by Wiley had employees belonging to different occupational category like clerks, Salespersons, Professional & Technical employees and managers as one of the subgroup. The study concluded that employee motivation and occupational category are related with each other. Rajeswari Devadass (2011) study presented literature review on motivation. The study presented literature on the relationships of employee motivation to several aspects of organisation like the characteristics of job, rules and regulations adopted by the management, characteristics of the employee.

Employee Motivation is essential for the effective working of an organization. It is a complex process and is influenced by several factors. The researchers have explored these factors through surveys and other researches. Lot of research is being done to explore the factors.

These factors are individual, organizational or environmental and are interrelated with each other.

The different theories of motivation have served as the basis to provide several factors of motivation. These factors are explored from most of the theories. The studies related to motivation amongst employees other than academicians of higher education, have also provided an insight into the factors which influence motivation.

2.2 Motivation and Job satisfaction among academicians

The study by Pearson & Seiler (1983) showed that the academicians are satisfied through teaching and research activities. In Hill's study (1986) it was shown that the academicians are intrinsically motivated through research and teaching. Salary, administrative work and fringe benefits give only extrinsic satisfaction. The impact of financial rewards, teaching culture, diversity of roles, and experience of staff, autonomy and organisational structure on the motivation of academicians was analysed by Jennifer, Rowley (1996). The relationship between Faculty Rank System, Research Motivation, and Research Productivity was explored by Flora F. Tien and Robert T. Blackburn (1996). The results of the study show that promotion and research productivity are related. Research productivity requires both extrinsic and intrinsic motivation.The study by Lacy and Sheehan (1997)found that following are the predictors of higher education academicians' job satisfaction: environment of work, university atmosphere, morale, sense of community and relationship with colleagues. Findings of the study by Leung, Siu & Spector (2000) showed that recognition, organisational practices and financial inadequacy are the predictors of job satisfaction among academicians.The effects of rank, tenure, length of service, and actors related to the institution on attitude of faculty towards research and teaching were explored

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by Thomas, Li-Ping, Tang & Mitchell, Chamberlain(2010). The results concluded that the length of service is related to the perception of faculty regarding research and rewards.

Tulsee Giri Goswami and Dr. Harsh Dwivedi(2011) in their study revealed that highly motivated employees are more productive and also employees join an organisation with different needs and expectations. The values, beliefs, background, lifestyles, perceptions and attitudes of employees differ.

Mushtaq A. Sajid and Imrab, Shaheen (2012) in their study to extractedthe factors which increase the motivation level of higher education academicians. The study used, class room environment and work load stressor analysis. The results showed that class room environment motivates more as compared to workload stress.

RaviKumarn (2013) in his research study on teachers of engineering colleges analysed the impact of two factors namely, administrative policies and incentives/rewards on their motivation and mentioned that, incentives improves the motivation level whereas the administrative policies reduce the motivation level of the teachers.

The study by Christine Nya-Ling and Tan,T. Ramayah(2014) examines intrinsic motivators (commitment; enjoyment in helping others) and extrinsic motivators (reputation; organizational rewards) to describe the behaviour of Malaysian academicians. Results of the study showed that in higher education institutions extrinsic and intrinsic motivators play an important role.

Another study conducted by S. M Sajid (2014) found that job satisfaction levels differ between male and female college teachers.

2.3 Motivation and Performance

Several research work support the relationship between organisational performance and motivation of the employees of the organisation. Organisational performance wasreferred as "a process of assessing progress towards achieving pre-determined goals, including information on the efficiency by which resources are transformed into goods and services, the quality of these outputs and outcomes, and the effectiveness of organizational objectives" by Amartunga and Baldry(2002).

The study by Muogbo(2013) revealed that employee motivation and the organizational performance are related with each other. Further the findings of the analysis showed that extrinsic motivation given to workers in an organization impacts the performance of its workers. Study of O. Solomon et al (2012) showed that motivation and employee productivity and ultimately organizational performance are related positively with each other.

Various dimensions of organisational performance like: External environment, internal motivation, capacity, effectiveness, efficiency, relevance and financial viability were explored by Nancy and Mine (2004)

The conclusion of literature reviewed showed that organisational performance is the sum total of individual employee performances. Hence individual performance as well as motivation is linked to the organisational performance.

2.4 Comparison of Three Hierarchical Levels in regard to appointment, experience (Teaching and Research) and Teaching workload, (UGC/AICTE Regulations, 2010)

The hierarchical designations of higher education academicians in India include: Assistant Professor, Associate Professor and Professors. These designationsdiffer from each other in the following aspects:

(i) Recruitment Process:

Professor: For the position of professor the essential qualification is Ph.D with 10 years of teaching experience in university/college. There should be published work in quality journals, a minimum of 10 publications as books and/or papers. An experience of guiding candidates for research at doctoral level is also required.

Associate Professor: For the position of an Associate Professor a person a Ph.D. degree is essential. A minimum of eight years of experience of teaching as Assistant Professor in a university or College is also required. The publications must be minimum five in quality journals and books..

Assistant Professor: For the position of an Assistant Professor a person should have a good academic record at the Master's degree level. The National Eligibility Test (NET) conducted by the UGC is essential.

(ii) Workload: An academician of higher education should be available for at least five hours daily. Academicians of higher education have 180 teaching days in an academic year. The differentiation according to designation in teaching hours is 16 hours for Assistant Professor, , 14 hours or both Associate Professor& Professor.

(iii) Pay Scale: The pay scales of an Assistant Professor, AssociateProfessor and a Professor is different. The pay scale increase with designation.

3. Research Gaps:

A critical review of the literature survey indicated the following **research gaps**:

(i) Only few research studies have explored the factors on which the motivation of academicians depends.

(ii) Very few researchers have categorized the academicians on the basis of designation and studied its impact on motivation.

(iii)There is dearth of research in this area where the factors influencing the motivation of academicians of higher education are compared through designations.

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(iv) Also, the reviewed research studies clearly stated that motivation of higher education academicians' is influenced by the demographic characteristics to a certain extent.

3.1 Need of the Study

From the literature review it can be concluded that motivation is a complex multifaceted process which is related with the needs, goals, expectancy and efforts of an individual. Several process and content theories serve the foundation of motivation. Academicians perform lots of duties relate to teaching, administration and social responsibility and so they need to remain motivated. The responsibilities of institution and academician are important and must be focused for the performance of an educational institution. The research studies on motivation of an employee provided the variables which influence employee motivation. The research studies on academicians show how different aspects like work culture, monetary benefits influence their motivation. Different researchers have taken different variables and analysed their relationship with academician's motivation.

'Levels of academician in an educational institution' (Hierarchy) refers to a line of demarcation between various positions in an organization. The levels in an organization differ from each other in various aspects (Robbins & Decenzo, 2001). These differences are in reference to authority, responsibility, skills, decisions, instructions, reporting, feedback, amount of time spent in various activities, and lastly the differences in competences at the different levels of an organization.

The present study provides an insight into the aspect of motivation among the different ranks (levels or designations) of academicians of higher education. It aims to explore the factors which influence the motivation amongst the academicians of higher education in India. Further it also explores the difference in motivation between the various levels (hierarchies) of academicians. The differences in needs and various other factors, influencing motivation at different level leads to the concept of multilevel motivation.

3.2 Objectives of Study

The present study aims to fulfil the following objectives:

(i) To explore the factors which influence motivation of academicians working in Higher education industry at different hierarchical levels: Assistant professor, Associate professor, and Professor.

(ii) Designation wise comparison of different motivational factors.

Hypotheses:

H0: Assistant professor, associate professor and professor have same factors influencing their motivation to work.

H1: Assistant professor, associate professor and professor differ in the factors influencing their motivation to work.

3.3 Significance of the study

The study explores the differences in the influences of motivation at different designations(multilevel motivation) of academicians. The findings will contribute towards framing of new policies for motivating academicians keeping their designations in mind. The aim of the present study is to differentiate different factors of motivations at different designations of academicians of higher education. The study will to a certain extent will help in enhancing the attractiveness of this profession.

4. Research Methodology:

4.1 Data Collection Tools and Sampling

For study both primary and secondary data have been used. The secondary information was collected from the available journals, research surveys, and official websites of AICTE (All India Council of Technical Education),UGC (University Grants Commission) and MHRD (Ministry of Human Resource Development). The secondary information provided an insight into the concept of motivation, theories of motivation and factors influencing motivation. The data reviewed also provided knowledge about the higher education scenario in India and the role of higher education academician in improving the same. The secondary data helped in the formulation of the research objectives for the present study.

The primary data was collected through a self designed structured questionnaire. Through the questionnaire the data was obtained from academicians of higher education of institutes, colleges and universities located in the Delhi/ NCR region.

Section I of the questionnaire was related to Demographics of the respondents and section II was related to the variables related to assessment of motivation amongst the academicians of higher education.Out of the 450 questionnaires distributed 340 were received out of which 315 were found to be useful for analysis. Probability sampling method was used to collect data.

4.2. Statistical Techniques Used:

The data collected was subjected to analysis through SPSS 19.0 version.The various statistical techniques like Percentage method, Mean, Standard Deviation, exploratory factor analysis, ANOVA (Analysis of Variance) and Post Hoc Test were applied to analyse the data and to obtain results.

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5. Data Analysis and Findings:

5.1 Demographic Analysis

The Demographic profiles of the respondents are shown in the Table I.

Table I: Distribution of Respondents on the basis of Demographic Variables

PROFILE OF RESPONDENTS		Number	Percent
GENDER	Male	125	30.6
	Female	190	60.3
Age	less than 25 years	10	3.2
	25 to less than 35 years	151	47.9
	35 to less than 45 years	118	37.5
	Above 45 years	36	11.4
Qualification	Post Graduation	154	48.9
	M.Phil	16	5.1
	Ph.D	144	45.7
	Any other professional qualification	1	0.3
Nature of Organisation	Government	170	54
	Aided	6	1.9
	Self-financing	139	44.1
Department	Commerce	15	4.8
	Management	39	12.4
	Arts/Humanities	39	12.4
	Engineering	198	62.9
	Any other	24	7.6
Designation	Junior research fellow	5	1.6
	Assistant Professor	153	48.6
	Associate professor	103	32.7
	Professor	54	17.1
Total Academic experience	less than 1year to less than 10 years	148	47.0
	10 years to less than 20 years	116	36.8
	20 years to less than 30 years	35	11.1
	30 years and above	16	5.1

(Source: Primary Data)

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Table I reflects more females (60.3%) as compared to the males (30.6%) proving the fact that the female academicians are more than male counterparts in the teaching profession in Delhi & NCR region.

The table shows that 3.2% respondents are below 25 years of age and 47.9% of respondents belong to the age group of 25 years to 35 years, indicating that even young generation have started showing interest in this profession. In other words, after acquiring the minimum qualification required for academician they are entering in to this profession. The next age group i.e. 35 to less than 45 years has 37.5% of the respondents and there are 11.4% respondents above 45 years. This shows that earlier generation were having less interest in this profession.

About 48% of the respondents are post graduates, which is the minimum qualification required to join as an Assistant Professor in any academic institution and 45% have doctorate degrees. The reason being that for Associate Professors and Professors PhD is mandatory.

There are 54% respondents from the Government institutions, 44% from Self financing institutions (Private), and 2% from Aided colleges, as the sample was collected from the institutions of higher education in Delhi/NCR. In this region there are more number of government, self financing colleges and aided institutions. Hence the sample represents the same.

The majority of the respondents are from engineering department, being NCR a hub of manufacturing and IT industries.

The Assistant Professors, Associate Professors and Professors are in the ratio of 3:2:1. The respondents include 153 Assistant Professors, 103 Associate Professors and 54 Professors and five Junior Research Fellows. In an academic institution the number of Assistant professors required, is more as compared to Associate professors and Professors as per criterion prescribed by the AICTE in its guidelines i.e. ratio of students to faculty, the sample also depicts the same.

The numbers of academician who are having less than 10 years academic experience are 47% of the sample and those having more than 30 years experience are 5.1%. The academicians having academic experience 10 years to less than 20 years are 36.8% as compared to those having experience of 20 to less than 30 years (11.1%). This shows that the sample is representing the academicians of higher education since an academician starts career in academics as Assistant Professor and further progresses as Associate Professor and Professor. The ratio between Assistant Professors to Associate Professors and professors is 3:2:1. In the sample younger respondents are in higher percentage.

The conclusion of demographic analysis is that the sample is a proper representation of the population of study. The sample has the academicians of higher education in different designations in the required ratio.

5.2 Exploratory Factor Analysis

The data collected in response to the 60 variables was subjected to exploratory factor analysis (Chauhan A. et al 2018) . The Kaiser-Meyer-Oklin (KMO) value was .859 which is higher than the recommended minimum of 0.5 (Field,2005) indicating that the sample size was adequate for applying factor analysis. Barlett's test of sphericity was significant, supporting the factorability of the correlation matrix and hence factor analysis is appropriate. The exploratory factor analysis provided 12 Factors, as shown in the Table II.

Table II: Factors through Exploratory Factor Analysis

Factors (F)	
Recognition of Seniority	F 1
Growth Opportunities	F 2
Inter personal relationship	F 3
Participative Management	F 4
Responsibility with authority	F 5
Job Security	F 6
Personal Factor	F 7
Performance Management system	F 8
Monetary Benefits	F 9
Top Management support	F 10
Student feedback & Appreciation	F 11
Research related activities	F 12

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5.3 Results through one way analysis of variance (ANOVA)

The 12 factors obtained through exploratory factor analysis were tested through one way analysis of Variance, for their relationship with Designation. The analysis of variance technique helps to draw inferences whether the samples have been drawn from populations having the same mean.

The results of analysis are summarised in the Table III.

Table III:Designation-wise comparison of Factors of motivation of Academicians of Higher Education through ANOVA.

Designation	**Junior Research Fellow**		**Assistant professor**		**Associate Professor**		**Professor**		**F**	**Sig.**	**Null Hypothesis (H0)**	**Hypothesis (H1)**
Factors of Motivation of Academicians through Explorato	**DS1**		**DS2**		**DS3**		**DS4**					
	Mean	**S.D.**	**Mean**	**S.D.**	**Mean**	**S.D.**	**Mean**	**S.D.**				
F1	3.98	.39	3.70	.61	4.40	.67	4.45	.43	35.758	.000**	Rejected	Accepted
F2	3.80	.70	4.22	.66	3.93	.64	3.81	.44	7.710	.000**	Rejected	Accepted
F3	3.80	.48	3.31	.81	2.93	.81	2.88	.55	7.879	.000**	Rejected	Accepted
F4	3.72	.50	4.04	.57	4.08	.78	3.78	.63	2.979	.032	Rejected	Accepted
F5	**4.33**	.40	3.32	.95	**4.47**	.66	2.99	.89	49.423	.000**	Rejected	Accepted
F6	4.13	.69	4.05	.79	4.26	.74	4.28	.57	2.22	.085	Accepted	Rejected
F7	**4.33**	.47	4.27	.54	4.40	.37	4.28	.35	1.66	.175	Accepted	Rejected
F8	4.26	.43	4.06	.50	3.99	.41	3.91	.39	2.043	.108	Accepted	Rejected
F9	3.86	.38	4.28	.71	3.82	.53	3.62	.60	18.888	.001**	Rejected	Accepted
F10	4.00	.53	4.16	.51	3.97	.35	3.65	.43	17.651	.000**	Rejected	Accepted
F11	4.26	.64	**4.31**	.61	4.26	.38	3.86	.56	9.373	.000**	Rejected	Accepted
F12	3.86	.60	3.80	.88	4.38	.54	**4.66**	.36	25.448	.000**	Rejected	Accepted

*** Significant at 0 .01 percent level.*

F1- Recognition of Seniority, F2- Growth opportunities,F3- Interpersonal relationship, F4- participative management,F5- Responsibility with Authority,F6-Job Security, F7- personal related to family, F8- Performance Management system, F9- Monetary Benefits,F10- Top Management support, F11- Student feedback & Appreciation, F12- Research related activities

The Table III shows that DS 1(Junior Research Fellow) group is highly motivated by factor F 7(Personal factors) & F 5(responsibility with authority) *(Mean* = 4.33). The DS 2(Assistant Professor) group is highly motivated by factor F 11 (Student feedback and appreciation) *(Mean* = 4.31) and F 9 (Monetary Benefits). The DS 3 (Associate professor) group is highly motivated by factor F5 (Responsibility with authority) *(Mean*= 4.47). The DS 4 (Professor) group is highly motivated by factor F12 (Research related activities) *(Mean*= 4.66).

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The DS1 (Junior Research Fellow) group is having less respondents (5 only) hence the influence of these is ignored.

Further, the influence of all factors exceptF6 (Job Security), F7 (Personal factors) and F8 (Performance Management system) varies significantly across different designations.The factors F6, F7 and F8 motivate all the respondents irrespective of designation. The rest of the factors are influenced by designation. The null hypothesis is accepted for F6, F7, & F8 and rejected for rest of the factors at.01 percent level while for factor F4 the null hypothesis is rejected at .05 percent level.

The results of the analysis through ANOVA shows that exceptPersonal factors, Job Nature, and Performance Management System all the other factors have a significant difference in their influence on motivation (means) at different designations. These means of these factors (Factor 6, Factor 7 and Factor 8) differ by chance, these factors influence employees working at all designations.

The results of ANOVA have provided that difference in means is significant hence the difference in the extent of motivation could be attributed to the designation. However, in order to ascertain whether only one of the pairs (say assistant professor and associate professor) are significantly different from each other, or if the remaining pairs(assistant professor and professor, associate professor and professor) are also significantly different.

If the results of descriptive statistics are examined, it is seen that the means of designations against each factor are different. It is now required to examine each factor to find out in which designation motivation level is significantly higher than the other.

5.4 Analysis through Post-Hoc Test

The analysis result through ANOVA concludes that there is a statistically significant difference between designations of the influence of factors on motivation. In case of Factor 6, 7, 8 it is concluded that there is no statistically significant difference.

In the result of ANOVA, the significance value does not tell for which designation 'means' are different. It could be that there is difference between assistant professor and associate professors, assistant professors and professors, associate professors and professors. It could be that in all designations there is significant difference related to the motivation level. The significance value tells that there is a significant difference between the designations, it just cannot tell which one. For this purpose post hoc test is used to ascertain where the significant differences are. Once the significant difference between two groups is established, the group having higher mean value will have high impact of the measured variable. In this study the groups are designations and the measured variable is the factor of motivation. This test is not used when the results of ANOVA are not significant because there is no need. So this test is not done for Factors 6, 7 & 8.

The results of post hoc test are given in the Table IV.

Table IV Multiple comparisons (Tukey HSD post Hoc test)

Factors of Motivation of Academicians through Exploratory Factor Analysis		**Group Statistics**		**Multiple Comparisons (Tukey HSD)**					
								95% Confidence Interval	
	(I) Designation	N	Mean	(J) Designation	Mean Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
F 1(Recognition of Seniority)	Assistant Professor (DS2)	153	3.7000	Associate professor	-.70000*	0.0788	0	-0.9036	-0.4964
				Professor	-.75926*	0.09641	0	-1.0083	-0.5102
	Associate professor (DS3)	103	4.4000	Assistant Professor	.70000*	0.0788	0	0.4964	0.9036
				Professor	-0.05926	0.10322	0.94	-0.3259	0.2074
	Professor (DS4)	54	4.4593	Assistant Professor	.75926*	0.09641	0	0.5102	1.0083

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				Associate professor	0.05926	0.10322	0.94	-0.2074	0.3259
F2(Growth opportunities)	Assistant Professor (DS2)	153	4.2235	Associate professor	.28553*	0.08048	0.003	0.0776	0.4934
				Professor	.40501*	0.09906	0	0.1491	0.6609
	Associate professor (DS3)	103	3.9380	Assistant Professor	-.28553*	0.08048	0.003	-0.4934	-0.0776
				Professor	0.11948	0.10569	0.671	-0.1535	0.3925
	Professor (DS4)	54	3.8185	Assistant Professor	-.40501*	0.09906	0	-0.6609	-0.1491
				Associate professor	-0.11948	0.10569	0.671	-0.3925	0.1535
F 3(Interpersonal Relations)	Assistant Professor (DS2)	153	3.3109	Associate professor	.37235*	0.09963	0.001	0.115	0.6297
				Professor	.42733*	0.12264	0.003	0.1105	0.7441
	Associate professor (DS3)	103	2.9386	Assistant Professor	-.37235*	0.09963	0.001	-0.6297	-0.115
				Professor	0.05497	0.13084	0.975	-0.283	0.393
	Professor (DS4)	54	2.8836	Assistant Professor	-.42733*	0.12264	0.003	-0.7441	-0.1105
				Associate professor	-0.05497	0.13084	0.975	-0.393	0.283
F 4(Participative Management)	Assistant Professor (DS2)	153	4.0458	Associate professor	-0.04225	0.08456	0.959	-0.2607	0.1762
				Professor	0.25686	0.10409	0.067	-0.012	0.5257
	Associate professor (DS3)	103	4.0880	Assistant Professor	0.04225	0.08456	0.959	-0.1762	0.2607
				Professor	.29911*	0.11105	0.037	0.0123	0.586
	Professor (DS4)	54	3.7889	Assistant Professor	-0.25686	0.10409	0.067	-0.5257	0.012
				Associate professor	-.29911*	0.11105	0.037	-0.586	-0.0123
F 5 (Responsibility with authority)	Assistant Professor (DS2)	153	3.3246	Associate professor	-1.15019*	0.11075	0	-1.4363	-0.8641
				Professor	0.33073	0.13585	0.073	-0.0202	0.6817
	Associate professor	103	4.4747	Assistant Professor	1.15019*	0.11075	0	0.8641	1.4363

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	(DS3)			Professor	1.48092*	0.14507	0	1.1062	1.8557
	Professor (DS4)	54	2.9938	Assistant Professor	-0.33073	0.13585	0.073	-0.6817	0.0202
				Associate professor	-1.48092*	0.14507	0	-1.8557	-1.1062
F 9(Monetary Benefits)	Assistant Professor (DS2)	153	4.2854	Associate professor	.45874*	0.08214	0	0.2466	0.6709
				Professor	.66195*	0.10111	0	0.4008	0.9231
	Associate professor (DS3)	103	3.8267	Assistant Professor	-.45874*	0.08214	0	-0.6709	-0.2466
				Professor	0.20321	0.10787	0.237	-0.0754	0.4819
	Professor (DS4)	54	3.6235	Assistant Professor	-.66195*	0.10111	0	-0.9231	-0.4008
				Associate professor	-0.20321	0.10787	0.237	-0.4819	0.0754
F 10(Top management support)	Assistant Professor (DS2)	153	4.1699	Associate professor	.19243*	0.05834	0.006	0.0417	0.3431
				Professor	.51716*	0.07181	0	0.3317	0.7027
	Associate professor (DS3)	103	3.9775	Assistant Professor	-.19243*	0.05834	0.006	-0.3431	-0.0417
				Professor	.32472*	0.07662	0	0.1268	0.5226
	Professor (DS4)	54	3.6528	Assistant Professor	-.51716*	0.07181	0	-0.7027	-0.3317
				Associate professor	-.32472*	0.07662	0	-0.5226	-0.1268
F 11(student feedback)	Assistant Professor (DS2)	153	4.3115	Associate professor	0.04821	0.06993	0.901	-0.1324	0.2289
				Professor	.44735*	0.08608	0	0.225	0.6697
	Associate professor (DS3)	103	4.2633	Assistant Professor	-0.04821	0.06993	0.901	-0.2289	0.1324
				Professor	.39914*	0.09184	0	0.1619	0.6364
	Professor (DS4)	54	3.8642	Assistant Professor	-.44735*	0.08608	0	-0.6697	-0.225
				Associate professor	-.39914*	0.09184	0	-0.6364	-0.1619
Factor 12(Research	Assistant Professor	153	3.8017	Associate professor	-.57826*	0.09146	0	-0.814	-0.342

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related activities)	(DS2)							5	
				Professor	-.86492*	0.11257	0	-1.1557	-0.5741
	Associate professor (DS3)	103	4.3800	Assistant Professor	.57826*	0.09146	0	0.342	0.8145
				Professor	-0.28667	0.1201	0.082	-0.5969	0.0236
	Professor (DS4)	54	4.6667	Assistant Professor	.86492*	0.11257	0	0.5741	1.1557
				Associate professor	0.28667	0.1201	0.082	-0.0236	0.5969

*. The mean difference is significant at the 0.05 level.

The results of post hoc test reveal that the influence of factors of motivation variesamong different designations.
The DS2 (Assistant professor) and DS3 (Associate Professor) & DS4 (Professor) significantly differs in the influence of factor F1 (Recognition of seniority). The professors are more *(Mean* = 4.45) motivated by F 1 followed by associate professors *(Mean* = 4.40).
The DS2 (Assistant professor) and DS3 (Associate Professor) & DS4 (Professor) significantly differs in the influence of factor F2 (Growth opportunities).The Assistant Professors are highly motivated *(Mean* = 4.22) by factor F2 (Growth opportunities) as compared to Associate Professors (*Mean* = 3.93) and professors *(Mean* = 3.81).
The DS2 (Assistant professor) and DS3 (Associate Professor) & DS4 (Professor) significantly differs in the influence of factor F3 (Interpersonal relationship).Only the Assistant Professors (*Mean* = 3.31) are motivated by the factor F3 (Interpersonal relationships).
The group DS3 differ significantly with DS4 i.e. the Associate Professors and Professors in the influence of F4 (Participative Management). The Associate Professors are motivated (*Mean* = 4.08) more by this factor in comparison to professors (*Mean*=3.78).
The influence of factor F5 (Responsibilty with authority) differ significantly between DS4 & DS1, DS3 respectively. The influence also differs between DS2& DS3 groups. The Associate Professors are motivated more (*Mean* = 4.47) by F5 (Responsibility with authority) followed by Assistant Professors (*Mean* = 3.32) in comparison to Professors.
The influence of F9 (Monetary Benefits) differ significantly between DS2 & DS3, DS4 respectively. The Assistant Professors (*Mean* = 4.28) are motivated more as compared to Associate Professors (*Mean* = 3.82) and Professors (*mean* = 3.62)
The influence of F 10 (Top management support) differs significantly between DS 2 & DS3, DS4 respectively. The difference is also significant between DS3 & DS4 groups. The Assistant Professors are motivated most by F 10(*Mean*= 4.16).
The influence of F11 (Student feedback and appreciation) differ significantly between DS4 & DS2, DS3 groups. The Professors (*Mean* = 3.86) are motivated less as compared to Assistant Professors (*Mean* = 4.31) and Associate Professors (*Mean* = 4.26) by F 11.
The influence of F12 (Research related activities) differ significantly between DS2 & DS3, DS4 respectively. The Associate Professors *(Mean* = 4.38) and Professors (*Mean* = 4.66) are motivated more as compared to Assistant Professors (*Mean* = 3.80) by F 12 motivates.
The Table V shows that the assistant professors are motivated high by Monetary Benefits (F 9) with Mean=4.3 and student feedback (F 11) with Mean=4.3.
Associate professors are motivated high by responsibility with authority (F 5) with mean 4.5. Other factors which motivate them are Personal related to family (F 7) with mean 4.4 and Research related activities (F 12) with mean 4.4.
Professors are motivated high by Research related activities (F 12) with mean 4.7 and recognition of seniority with mean 4.6.
Both professors and associate professors are de-motivated by Interpersonal relations (F 3) to a certain extent.

5.5 Performance and Motivation

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The AMO theory which states that performance Pi of an individuali is some function f of his or her ability Ai to perform, his or her motivation Mito perform, and the opportunity to perform in the job Oi (Boxall and Purcell, 2011)

Performance (P_i) = Ability of an individual to perform (A_i)*X* Motivation (M_i)*X* Opportunity to perform (O_i)

Through the present study it is revealed that Motivation (M_i) will differ for assistant professor, associate professor and professor.An organisation's performance is sum total of the individual performances of employees. Hence it is revealed that the understanding of the differences in factors influencing motivation of academicians at different hierarchical positions (multilevel motivation), will increase the performance of an organisation.

6. CONTRIBUTIONS OF THE STUDY

- The study identified key factors influencing the motivation of higher education academicians. These factors and their relationship with designation as well as demographic characteristics can help the management to develop effective strategies for motivating the academicians thus leading to quality teaching.
- In earlier studies the aspect of motivation was studied individually, or along with the demographic characteristics. Very few researchers have categorized the academicians on the basis of designation and studied its impact on motivation. The study specifically pertaining to designations of academicians provided a more accurate and comprehensive picture of the nature of the relationship.
- The study will help in enhancing the motivation amongst the academicians of Higher education in the developing countries as this study is being conducted in one of the developing country.
- The study revealed that the performance of a higher education institution can be improved if it understands the differences in factors influencing motivation of higher education academicians at different hierarchical positions.

7. SCOPE FOR FUTURE WORK

- The study is conducted only amongst the academicians of Higher Education of Delhi/NCR. The study can be done further in order to validate and generalize the results obtained in other regions of India or outside India.
- From the present study it can be concluded that designation influences the motivation of academicians of higher education. The differences can further be studied with more responses from academicians.

8. CONCLUSION

The results of the Demographic and Descriptive analysis of the study are presented in the paper. The demographic analysis provided an insight into the demographic characteristics of the respondents in the sample. The descriptive analysis provided twelve factors of motivation of academicians of higher education namely:Recognition of Seniority, Growth opportunities, Interpersonal relationship, Participative management, Responsibility with authority, Job Security, Personal Factor, Performance Management system, Monetary Benefits, Top Management support, Student feedback & Appreciation and Research related activities. The study tries to explore the impact of designation on the influence of factors of motivation. The results of different analysis reveal that with designation, factors influencing academicians' motivation also changes. The factors which influence motivation of assistant professors are different from those of associate professors and professors. This difference gives implication to develop different programmes and policies for motivating the three designations of academicians and hence increase the performance of the higher education institution.

9.LIMITATIONS OF THE STUDY

The present research work has the following limitations:

(i) The study is aimed to explore the motivation amongst all the academicians of higher education but it is confined to academicians of higher education working in Delhi/NCR only.

(ii) The personal attributes like personality, perception, attitudes etc. of an individual which plays important role in influencing the psychological aspects like motivation, job satisfaction are not focused in the present study.

(iii) The chances of personal preconceived notion could not be ignored as the study is based upon data collected using questionnaire and interview method.

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