



Understanding Cognitive and Learning Capabilities of Higher Education System for Talent Retention

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ABSTRACT

Higher Education in India is in a phase of dominant change after the implementation of National Education Policy 2020. The Government of India is constantly striving towards creating world class technical institutions and in recent times many new initiatives have been brought forward which can create quality culture and can improve organisational learning capability. However, due to challenges such as shortage of faculty and signs of discontent and dissatisfaction of teachers in these institutions, issues in retention and their empowerment must also be given due attention.

This study attempts to analyse the impact of dominant changes in the academic front on Cognitive and Learning Capabilities and academic staff's intention to quit. It carries relevance because faculty satisfaction is the basis for quality education. This research was performed to test and analyse the relationship between Cognitive and Learning Capabilities and retention of academic staff across technical institutions in Uttar Pradesh, India. Cognitive and learning capability was analysed through dimensions like academic planning, research and innovation ecosystem, physical facilities and student teacher exchange. Online Research instrument was developed after reviewing appropriate literature and the reliability and validity of the instrument was tested before using it for the broader survey using SmartPLS. Hypothesis was tested using appropriate statistical techniques.

The study revealed that Cognitive and Learning Capabilities has a significant and positive impact on retention of academic staff. It will prove to be significant for the policy makers in improving the quality of education and creating programmes for development of cognitive and learning capabilities of academic staff, thereby enhancing their retention.

Keywords: National Education Policy 2020, organisation learning capability, student teacher exchange, Faculty retention, knowledge transfer and integration, empowerment strategies.

DOI Number: 10.14704/nq.2022.20.13.NQ88433

NeuroQuantology2022;20(13): 3523-3530

INTRODUCTION

Higher Education in India is in a phase of dominant change after the implementation of National Education Policy 2020, which is set to bring about a paradigm shift towards building learning capabilities in higher education institutions. The global pandemic on one hand has created unprecedented stress on the education sector but at the same time has put the spotlight on the weaknesses of this sector, thereby allowing for adaptive learning. It has often been brought to notice by various

researches that Cognitive and Learning Capabilities has been rather low across many professional institutions which has affected the employability of students and ultimately prevented most higher education institutions in India to shine on the world map. India's Higher Education System is the third – largest in the world in terms of number of students, next to China and the United States as more and more higher education institution, both in government and private sector, have come up since Independence. As India is about to



become the youngest nation in the world by 2030, with around 140 million higher education takers, the challenge to deliver world class education will be the concern of policy makers and academicians.

The Government of India is constantly striving towards creating world class technical institutions and in recent times many new initiatives have been brought forward which can create quality culture and can improve organisational learning capability. The Government is focusing on autonomy of institutions, accreditation of programmes, ranking of institutions and is embarking on schemes such as, NDF (National Doctoral Fellowship), Unnat Bharat Abhiyan, Student start-up policy 2016, Smart India Hackathon 2018, MOOCs platform SWAYAM, Vocational Education Courses under NSQF and internship opportunities. Further, teacher training programmes for both new teachers and in-service teachers have been initiated. The introduction of National Academic Depository for storing students' Educational certificates, collection of fee and scholarship disbursement through digital means are other major changes initiated by the Government of India. The purpose of introduction of these changes is not merely to increase enrolment or to provide degrees but to nurture leadership with a long-term vision of bringing India on the world map in the context of higher education. These shifts in governance and operating systems across academic institutions will force academic institutions to reconceptualise and redefine the organisational learning capability.

Besides this, academic institutions are complaining about shortage of faculty and many who are on the rolls of colleges are showing signs of discontent and dissatisfaction. Due to paucity of teachers in these institutions their effectiveness gets reduced and therefore the issues in retention of qualified teachers and their empowerment

must also be given due attention. Learning capabilities of organisations directly affects individual and organisational outcomes (Iqbal S.,2015); a strong learning culture gives people a sense of belongingness and responsibility (Brown A. D.,1998). Previous studies showed that despite the expansion that has occurred, it is evident that the higher education system is under stress to provide a sufficient volume of skilled human power which is equipped with the required knowledge and technical skills to cater to the demands of the economy. Bhushan (2009) stated that due to increasing student-teacher ratio and low paid contract teachers there is shortage of high-quality teachers. On the basis of review of previous research undertaken it seems that the quality of education is compromised at every stage of operation.

This study attempts to analyse the impact of such changes in the academic front on Cognitive and Learning Capabilities and academic staff's intention to quit. It carries relevance because faculty satisfaction is the basis for quality education. Specifically, the study aims at identifying the Cognitive and Learning Capabilities of academic institutions through adoption of new Government initiatives for improving quality of higher education and its role in the retention of qualified and talented academic staff in HEIs.

REVIEW OF LITERATURE

Cognitive and Learning Capabilities

The area of organisational learning has been extensively researched in the context of industry but there are few researches on Cognitive and Learning Capabilities in the academic institutions in the recent literature. Some studies focus on Cognitive and Learning Capabilities as a medium of competitive opportunities and a key to future organisational success (Chiva et al.,2007; Jerez-Gomez et al 2005). The concept refers to the practices, talent and other factors that



facilitate organisational learning. It is related to knowledge transfer and integration, decision making system, leadership and teamwork, experimentation with new ideas and integration of internal and external environment.

In certain researches learning has been treated as a process with focus on its acquisition, assimilation and integration within the organisation (Teece et al., 1997). Argyris (1990) suggested that organizational learning is about sharing knowledge, beliefs and assumptions with individuals and groups (SobhaniNezhad et al., 2006). Cognitive and Learning Capabilities refer to both organisational and managerial characteristics that facilitate organisational learning process and allows an organisation to learn. High organizational learning capability helps an organisation to learn quickly and adapt to changes. An organisation where employees are continuously encouraged to learn new skills, use new ways of problem solving, give regular feedback and learn to experiment can be called continuous learning organizations. To be successful, organizations must be able to discover capabilities in their human resources, make them knowledge centric and empower them to turn innovative ideas into action throughout an organization.

Goh & Richards (1997) developed a 21- item evaluation of the learning capability of organisations. The authors identified five facilitators to study organisational learning and for evaluating the learning capability. These five categories are:

- 1. Transparency of objectives and mission:** The extent to which employees analyse the objectives and contribute towards the success of organisation.
- 2. Leadership commitment and empowerment:** The roles of the leaders in supporting positive change and creativity.

3. Experimentation: The autonomy of doing things and taking risks.

4. Transfer of knowledge: The systems that are available for transfer of knowledge.

5. Co-ordination and Group Problem solving: The co-ordination present for solving problems.

Chiva et. al, (2007) suggested five aspects of organisational learning capability: experimentation, risk taking, communication with the external environment, dialogue and participation in problem solving and group decision making. These aspects were the facilitating factors in the literature (Chiva, 2007).

In this research organizational learning capability will be measured in the context of adoption of new structural and procedural measures to encourage learning by academic institutions under study as suggested by Government from time to time and as outlined in National Education Policy, 2020. It can be argued that academic institutions with these new systems and procedures have a great capacity to learn.

Retention

Teachers are the most important assets for any educational institutions. The quality of teachers differentiates a strong organisation from a weak one. A team of dedicated, qualified, competent and motivated teachers can compensate for deficiencies in infrastructure and other physical facilities. The quality of student intake is also essential. With the mushrooming of engineering and management colleges it has become difficult to employ quality teachers and more importantly to retain them. Most of them, specially in the private sector, stay for two to three years before they move out. The attrition rate is as high as 20 to 30 percent in such professional institutions. The norms for faculty recruitment and their conditions of work have undergone changes due to



guidelines from regulatory authorities in India such as UGC, AICTE and MHRD. Relaxation of the student-teacher ratio by AICTE and falling admissions in engineering and management colleges will further aggravate the problem.

University teaching is a multidimensional process which requires special skills for meaningful outcomes. With the increasing role of technology in professional education it is expected that faculty in professional courses must upgrade their skills to deal with the complexities of digitalisation. Good teaching can generate interest in the subject and be helpful in inculcating a sense of student control over learning. This research focusses its attention on how professional institutions by creating a development-oriented learning environment can not only engage their students but can also engage their teachers who value work environment over other factors like compensation. As per AICTE emphasis should be put on training teachers working in the country's higher education sector for proper implementation of education policies. This is why organizational learning capability can help in faculty retention.

The review of literature has provided insights into the previous researches in the field of organisational learning capabilities and faculty retention in higher education but at the same time has revealed the fact that there is not much research on Organizational learning capability in Higher education and moreover Organizational learning capability has not been measured in the context of adoption of new structural and procedural measures as forwarded by different accreditation agencies in India like NAAC, NBA etc. for creation of quality learning environment. The indicators of an organisation's learning capability considered in this study will help to get a glance of the preparedness of these technical institutions for accreditation, which now will become unavoidable for seeking

administrative and academic autonomy. At the same time this study will report changes in the academic front after implementation of National Education Policy 2020 in India. It can be argued that academic institutions with these new systems and procedures have a greater capacity to learn. Therefore, this study is an attempt to bridge this gap and it is expected that it will bring academic and practical insights to the working culture in higher education, especially in the context of the new world order demanding higher education to support learning centred change.

DEVELOPMENT OF RESEARCH FRAMEWORK

Research model was developed on the basis of literature review. This research was performed to test and analyse the relationship or influence between the variables as shown in the conceptual frame in Figure 1. In the context of this research, organizational learning capability was measured in the context of adoption of new structural and procedural measures to encourage learning by academic institutions under study. It can be argued that academic institutions with these new systems and procedures have a great capacity to learn. High organizational learning capability helps an organisation to learn quickly and adapt to changes. Learning capabilities, in turn, enable institutions to discover capabilities in their human resources, make them knowledge centric and empower them to turn innovative ideas into action throughout an organization. In this research organizational learning capability was analysed through dimensions like academic planning, research and innovation ecosystem, physical facilities and student teacher exchange to foster a learning environment keeping in view the criteria proposed by different accreditation agencies from time to time. On the basis of literature review the following hypothesis was developed for further analysis:

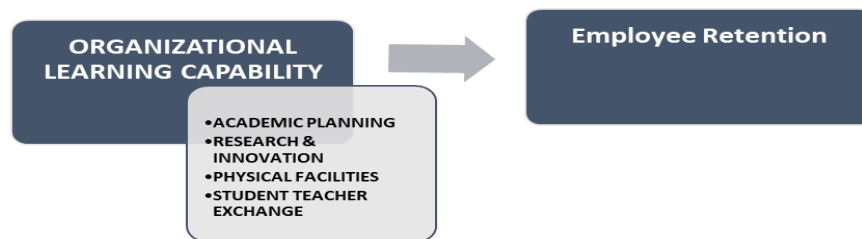


H1: Academic planning has a significant and positive impact on faculty retention.
H2: Physical facilities have a significant and positive impact on faculty retention.

H3: Research and Innovation ecosystem has a significant and positive impact on faculty retention.

H4: Student- teacher exchange has a significant and positive impact on faculty retention.

Figure 1: Independent and Dependent Variables



Research Design

This study used a cross-sectional survey design and therefore the study occurred at one point in time. The deductive approach has been used in this study as is commonly used in quantitative research for testing hypotheses and drawing research conclusions (Johnson, 2001).

Unit of Analysis

Data was collected using online Likert-style surveys (ranging from strongly agree (5), agree (4), undecided (3), disagree (2) and strongly disagree (1)), from faculty at different technical institutes in Kanpur city as part of pilot study both in Government and Private institutions (N= 122) in the year 2022. The reliability and validity of the instrument was tested before using it for the broader survey using SmartPLS.

Table 1
Demographic Profile of Research Sample

S.N.	Characteristics	Respondents	Percentage
1	Nature of Institute : Government :	49	40
	Private:	73	60
2	Nature of Job : Permanent	71	58
	Contractual	51	42
3	Designation : PROFESSOR	22	18
	ASSOCIATE PROFESSOR	7	6
	ASSITANT PROFESSOR	73	60
	Other	20	16
4	No. of year of Experience with current institute: Less than 3 Years	61	50
	3- 6 years	25	20
	7-10 Years	7	6
		29	24

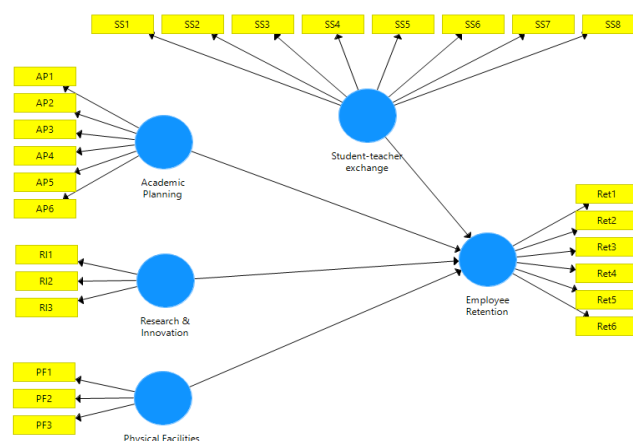


	More than 10 years		
	Overall Teaching Experience :		
	Less than 3 Years	29	24
	3- 6 years	17	14
	7-10 Years	22	18
5	More than 10 years	54	44
	Qualification :		
	Graduate	0	0
	Post Graduate	34	28
	M.Phil	5	4
	Ph.D	71	58
6	Other	12	10
	Age :		
	20-30	0	0
	31-40	44	36
	41-50	49	40
	51-60	22	18
7	Above 61	7	6
	Gender :		
	Male	68	56
8	Female	54	44

Assessment of the Measurement Model

In this study, measurement model was analysed using the Smart PLS software version 3.0. Validity of the instrument was assessed according to the criterion of Fornell-Larcker (1981) that assesses the degree of shared variance between the latent variables of the model using PLS. According to this criterion, the convergent validity of the measurement model can be assessed by the Average Variance Extracted (AVE) and Composite Reliability (CR). The study incorporated an assessment of convergent and discriminant validities in order to assess the construct validity of the measurement model. Composite reliability (CR), factor loading and average variance extracted (AVE) for all the constructs were calculated.

Figure 2: Model Path Diagram



Reliability and validity of the questionnaire was established and final data was collected and analysed to test the hypothesis using appropriate statistical techniques.

Assessment of the Structural Model

To assess the association between Cognitive and Learning Capabilities dimensions and Faculty retention as hypothesized in this research, bootstrapping method was used. To estimate the amount of variance for each dimension, the degree of R square was calculated. The technique helped to identify the impact of Cognitive and Learning Capabilities dimensions (independent variable) on the dependent variable (Retention).

Discussion

Many Universities and Colleges in India are brainstorming on putting India on the world map in the arena of higher education in the past few years. Teachers are the backbone of any educational institution and therefore the issue of their retention in the institution needs to be seriously addressed. Reports show that for many reasons, both academic as well as non-academic, teachers want to migrate to better institutions. Quality of an institution should not be based on its ownership (Times of India, 27th June, 2022). Accreditation of higher educational institutions is also becoming sine – quo – non in Indian institutions which demands hardcore policies for improving quality of education. Therefore, this study was specifically conducted to assess the Organisational learning capabilities keeping in mind the criteria emphasised by NAAC (National assessment and accreditation council) and the impact of these quality measures on Faculty retention. Retaining effective teachers is essential to the stability of the educational institutions and greater opportunities for students (Lawver et al., 2018)

The research proposed to explain various determinants of Faculty retention and identify the Cognitive and Learning Capabilities. It determined the impact of various Cognitive and Learning Capabilities dimensions on employee retention, to predict academic as well as professional success of teachers. This research reiterates the value of academic planning, research and innovation ecosystem, physical facilities and student- teacher exchange in faculty retention and building a learning climate in academic institutions.

The above discussion clearly reflects the relevance of academic environment for retaining academic staff in higher education institutions. Some studies (Brill and McCartney, 2008) have noted that moderate salary increases are not the only source for retaining teachers, rather there are more cost effective and empowering strategies for improving teacher retention. An institution can create a learning environment for faculty engagement but a teacher will contribute to his full potential only if there is empowerment. A well-integrated and outcome-based curriculum provides a scientific basis for designing the teaching plan that provides role clarity for teachers. Regular revision of curriculum makes the curriculum to be taught less monotonous and skill-based curriculum helps better connection between teachers and students. Academic flexibility in designing, delivery and revising curriculum makes teachers more empowered and allows them to make the best use of their cognitive skills. This is in conformity with the study by Gallant and Riley (2014), who in their study of novice teachers that quit within five years of joining, found that the recurring problems that teachers faced included their inability to develop new pedagogies, lack of learning environment, and no opportunity to exercise creativity or innovation.



Conclusion

Even after a series of pedagogical innovations and decade long technological advancements, higher education has not been able to completely do away with the systemic structure of earlier generations. This system is not completely synchronised with the needs of teaching staff and irrevocably tied to participatory practices. The existing structure of education system is a hurdle for the implementation of the basic philosophy underlying new education policy 2020 as the foundation of this system are the teachers, whose satisfaction is a matter of deep concern for all policy makers. In order to develop students in a holistic manner, sensitisation of teachers is essential and this can only be possible when learning capability of teachers is enhanced through knowledge creation and development. The leaders of academic institutions need to focus on innovation of pedagogy and continuous development of curriculum to enrich classroom experience for teachers. Pedagogy should emphasise on communication, discussion, debate, research, field visits and opportunities for cross-disciplinary and interdisciplinary thinking. A greater amount of task autonomy and task identity can enhance overall satisfaction of teachers. Integrating technology and online resources in each class can build pride in teachers and help them get rid of monotony with traditional chalk and duster classrooms. Curriculum integrated with skills can also create more interactive classrooms. Thus, retention of teachers in higher education can be promoted through improved educational strategies, by creation of Institution's learning capabilities. New dynamism can be injected in the higher education sector through competition and incentives for teachers in higher education. It is only then that the country can prepare itself

to export the Indian brand of education to foreign countries.

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