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### Critical Factors of Service Quality from the Students Perspective –A Study with Reference to select Universities of South India

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### Abstract

The socio-economic development of any country solely depends on the quality of education. It plays a crucial role in creating skills, knowledge, abilities, and awareness among the students. It acts as an antidote to poverty, hunger, malnutrition and corruption. Thus the research in higher education paves way for a knowledgeable and healthy society. In this scenario an attempt is made to identify the critical factors effecting service quality and to evaluate the service quality in higher education. 25 major Universities of South India were selected for the study. A scale based on SERVQUAL model was used. five critical factors effecting quality of education service in south Indian Universities were identified using exploratory factor analysis which were named as –Governance and Management, Research Consultancy and extension, Curricular aspects &Teaching, Learning &Evaluation and Infrastructure and learning Resources.

**Key words:** Service Quality, higher education, SERVQUAL

### Introduction

The higher education sector acts as a powerful tool to build a knowledge-based society and also has a direct bearing on it. The utmost preference of any county is development of its human resources, keeping intact with the societal values and changes in various aspects like scientific development of the country. There are many countries which are reeling with poverty and its implications majority on varied verticals of human development due to dearth of awareness and an eminent education system. So higher education is a medium to place country on the right path dissolving various disparities arising in the communities and directly aids to the nation's economy. India is witnessing an unprecedented consumption boom towards educational services. The economy is growing between seven to nine percent and the resulting improvements in income dynamics along with the factors like favorable demographics and spending patterns are driving the consumption demand towards higher education. According to the reports of AISHE (All India Survey on Higher Education) published by the government of India the Gross Enrolment Ratio (GER) and the number of institutions in India are increasing gradually, still there are some factors yet to be measured and maintained to meet the world class requirements and standards like quality of the higher education, students satisfaction and perception. Although rigorous studies and research has been conducted on higher education service quality so far, yet there is need for up gradation of service quality with time and technology. This study is an attempt to find out the current service quality standards of higher education in southern India.

### Significance of the Study

Indian education system has made a significant progress in higher education from the past two decades. With a vision



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to ensure quality in education the government at the state and central level with various regulatory and accreditation hodies are monitoring the higher educational institutions, yet the quality of higher education is struggling to attain the global level excellence in India. In order to deliver superior quality of services it becomes inevitable to measure and assess the existing level of services. Hence, there is a strong need to move the issue of quality in higher education to the forefront of the policy makers at higher education level. Though several studies have been conducted on the concept of service quality, it is observed that very less number of studies have been done on assessing the service quality in Indian higher education. In this scenario the present study is mainly aimed at examining the quality in higher education sector. The results of this study will be very helpful in identifying the critical factors affecting quality of education and develop a scale for measuring service quality in higher education. The assessment of educational service quality is very much required to know the existing level of services, to identify potential gaps for improvement and also to meet the changing requirements of the higher education and to suggest measures to improve the present education system.

### Literature Review

Riadh Ladhari (2009) reviewed 20 years (1988-2008) of research on the SERVQUAL scale for measuring service quality. Studies that have applied the SERVQUAL scale in this 20-year period are examined in a non-exhaustive review of the literature. The paper identified and summarized numerous theoretical and empirical criticisms of the SERVQUAL scale. Despite these criticisms, the paper concluded that SERVOUAL remains a useful instrument for service-quality research. The paper summarizes a selection of 30 applications of SERVQUAL provides a useful source of and information on SERVQUAL and its applications. Parasuraman, Zeithaml and conceptualized Berry (1985) service quality by disconfirmation model that assesses customer expectations and perceptions, further refinement developed Gap model of service quality. Parasuraman, Zeithaml, and Berry (1988) developed SERVQUAL scale comprised of ten dimensions and finally reduced to five dimensions with 22 items, the five dimension of service quality are of Tangibility, Reliability, Responsiveness, Empathy. J.Joseph Assurance and Cronin, Steven. A. Taylor (1992) criticized the Parasuraman Zeithaml and Berry, SERVQUAL model as an inadequate tool measure service quality to and investigated the conceptualization and measurement of service quality and the relationship between service quality, consumer satisfaction, and purchase intention Two of the best known scales for measuring service quality are the SERVQUAL scale (Parasuraman et al., 1985; Parasuraman, Zeithaml, & Berry, 1988) and the SERVPREF scale (Cronin & Taylor, 1992, 1994), a reaction to and criticism of the former. Buttle (1996) service quality is the driving force of financial performance and corporate marketing.

### Service Quality Dimensions in Higher Education

Sultan, P. &Yin Wong, H. (2010) conducted a study in an Australian University with 19 students by focus group discussions to identify the dimensions, consequences and critical antecedents of service quality in higher education context. The findings of the study are the information and past experience were the antecedents of service quality. Academic, support functions and administrative functions are attributes relevant to perceived service quality. In this, he identified the critical research issues in terms of service quality in higher education a) role, importance, expectation and performance on service quality in higher education b) critical service attributes and dimensions of service quality in higher education c) critical antecedents of service quality in higher education d) effectiveness of ECSI methodology in higher education e) quest for an effective model in higher education through a review of literature and concluded that the higher education sector can be considered a marketplace and University education a marketable service. Parves Sultan and Ho Yin Wong, compared students' 2014 cultural influence on global assessment of higher education in service quality. In particular, this study surveyed the full-time students studying at the Central Queensland



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University (CQU), an online survey was undertaken, and 227 responses from fulltime students were returned for data analysis. Exploratory factor analysis and factor confirmatory analysis were performed to determine valid and reliable dimensions of perceived service quality. Tests of differences such as ANOVA and ttest were conducted to examine the differences of perceived service quality in terms of four cultural dimensions; namely, power distance, individualism, uncertainty avoidance, and masculinity. Findings show that different cultures service quality differently; perceive especially administrative service quality and physical facilities service quality. Ansary, A., Jayashree, S., & Malarvizhi, C. A. N. (2014) measured the effect of gender and nationality on service quality in Malaysian Private Universities using the SERVOUAL instrument. The level of students' satisfaction is evaluated based found between on the gap their perceptions and expectations towards five dimensions of service quality, namely tangibles, reliability, responsiveness, assurance and empathy based on their gender and nationality. Thus a 22-item Likert questionnaire was type administered among 250 students from both genders and different nationalities .. Hong ShenJ.& Muthiani Malechwanzi, Caroline Mbeke- 2016 examined the development and current situations of higher education in China and Kenya. A conceptual framework was drawn from educational policies in China to explain how Kenya can learn and address its own challenges of higher education. A documentary review method was used to collect data. R.A. Chanaka Ushantha & P. A. P. Samantha Kumara (2016) addressed the service quality of a higher education institute in Sri Lanka from the Students' perspective. Data were collected through a structured questionnaire from 250 randomly selected full-time students. The HEdPERF scale was adapted to measure the service quality perceptions of higher education. Cronbach's alpha values were used to examine the internal consistency of the HEdPERF dimensions. Multiple regression analysis was conducted to dimensions examine how service contribute to the service quality perception. It was found that only access nonacademic dimensions have and significant contributions to the service

quality perceptions in higher education. A.S. Baysal, Z. N., & Erkan, S. S. S. (2017) evaluated the quality service in higher education in Marmara and Nigde Omer Halisdemir Universities' department of education students. This study was prepared using a screening model from quantitative research methods. The sample of this research comprised 886 university students attending the higher education institutions. The Scale of Service Quality in Higher Education Institutions is composed of a data collection tool consisting of 28 items and 6 factors.. Asim.A. & Kumar N. (2018), investigated the expectations and perceptions of postgraduate students on service quality of higher education institution in Maldives. Quantitative data was collected using the SERVQUAL instrument. A cross-sectional survey design was employed, and 72 samples were obtained. The findings revealed that there was a positive but a weak relationship between expectations and perceptions on all the five different dimensions of the SERVQUAL instrument. Gupta. P & Kaushik, N. (2018) reviewed the dimensions of service quality used in different countries across the world, especially in the higher education sector.. The paper focuses on revealing the dimensions which are used in the past studies. The paper notices a huge variation in the items as well as constructs while exploring the dimensions. Hasbullah, A., & Yusoff, W. Z. W. (2018) Presents an initial step for the development of a suitable approach to assess public higher education institution (HEI) facilities' service quality. They discussed about service quality in programmes and processes in HEIs, revealed that SERVQUAL is the most widely accepted scale which has its dominance in the higher education setting. The study noticed a huge variation in the items as well as while exploring constructs the dimensions. Latif, K. F., Latif, I., Farooq Sahibzada, U., & Ullah, M. (2019). developed and validated the construct HiEduQual (Higher Education Service Quality) to measure the level of service quality in higher education (HE) institutions. Scale development was undertaken through focus group discussions with four different stakeholders HEincluded of that



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students, parents, teachers, and The scale was validated employers. through data collection from seven different HE institutions. Based upon exploratory and confirmatory factor analysis the study found six determinants of service quality in HE. They were named as teacher quality, administrative services, knowledge services, activities, continuous improvement, and leadership quality. Shahroudi, S., Arbabisarjou, A. & Rahdar, O. (2019) assess the perceptions students toward the quality of of educational services at Zahedan University of Medical Sciences (ZAUMS), Iran. This cross-sectional, descriptiveanalytical study was conducted on 477 students, who were selected randomly using the Krejcie-Morgan table for the estimation of sample size and stratifiedproportional sampling from the students of six schools at ZAUMS. According to the results, the students considered the quality of the current educational services at ZAUMS to be average..Latif, K. F., Latif, I., Farooq Sahibzada, U., & Ullah, M. (2019)., studied Jawad abbas-2020 identified service quality (SQ) indicators from their perspectives and proposed a comprehensive instrument for more exclusively measuring SQ in HEIs. HEISQUAL covers the operational as well as technical aspects of SQ by following a holistic approach, which has largely been ignored in previous studies. The proposed instrument was subjected to different scale development tests where outcomes fully complied with the benchmark values and proposed seven SQ themes, namely teachers' profile, curriculum, infrastructure and facilities, management and support staff, employment quality, safety and security, and students' skills development. Abbas, J. (2020) developed and validated the construct HiEduOual (Higher Education Service Quality) to measure the level of service quality in higher education (HE) institutions. Scale development was undertaken through focus group discussions with four different stakeholders of HE that included parents, students. teachers. and The scale was validated employers. through data collection from seven different HE institutions. Based upon exploratory and confirmatory factor analysis the study found six determinants of service quality in HE. They were named teacher administrative quality, as

services, knowledge services, activities, continuous improvement, and leadership quality. The final scale consisted of 37 items. Steppacher, D., Cannarozzo Tinoco, M A. Caten, C.S.T. & Marcon (2021) proposed a valid and reliable perceived quality assessment framework of administrative services in Higher in Education Institutions (HEI) the Brazilian context. The method was in two main stages: (i) map a set of quality attributes and dimensions for administrative services in HEI, (ii) build and test the perceived quality assessment framework and data collection instrument of the administrative services in a HEI. The theoretical contributions of this manuscript were the differentiated scope with a focus on administrative services in HEI, since most of the previous research addresses the area of education (final service), and the development of a specific framework for assessing administrative service quality. Tat.H.(2021) highlights the link between service quality and student satisfaction in the context of online learning environment. It focuses on the previous studies and the trends that have emerged and to determine a rationale to elucidate the relationship between service student quality and satisfaction. Anderson, Irzal. Kuswanto: (2021)determines the effect of service quality and motivation to the consumption behavior of students in utilizing academic services. This research involved 87 students of Economic Education Study in University of Jambi, Program Indonesia. The data were analyzed using structural equation modeling with partial least squares technique (SEM-PLS). Student consumption behavior is an illustration of the level of satisfaction in utilizing academic services provided by universities. Satisfaction with academic services is a measure of the success of performance education higher in providing education. The quality of academic services is shown by indicators of the reliability of officers in providing academic services, accuracy in the delivery of information, responsiveness in responding to complaints and student requests and harmonization of service relationships between officers and students. The quality of academic services has a significant effect on consumer behavior of students.



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### Table1.1: Service Quality Dimensions in Higher Education

S.No	Author and	Country/	Dimensions
1	year Kwek, Lau and Tan (2010)	University Malaysia	Curriculum, quality of librarians, amount of recreational activities and staff responsiveness from the division of
2	Sultan and Wong (2010a)	Japan	examinations and awards Efficiency, Effectiveness, dependability, capability, competencies, assurance, unusual situation management, semester and syllabus
3	Rojas-Mendezet al, (2009)	Chilean University	Program director, instructors, secretaries, competence development and service attitude
4	De Jager and Gbadamosi (2009)	South Africa	Academic reputation, academic quality, student focus, access and approachableness of service, international students and staff, internationalization, location and logistics, safety and security, accommodation and scholarship, marketing and support, intention to leave University, trust in management and support, parking and overall satisfaction with University
5	Stodnick and Rogers (2008)	USA, one University	Reliability, responsiveness, assurance, empathy, and tangibles
6	Angell, Heffernan and Megicksm (2008)	UK, one University	Academic factor, cost/value for money, leisure factor, industry link factor
7	Smith et al. (2007)	UK, one University	Reliability, responsiveness, assurance, empathy, and tangibles
8	Abdullah (2006c)	Malaysia	Academic, Non-academic, program, access, reputation and understanding
9	Abdullah (2006)	Malaysia	Academic, Non-academic, empathy and reliability
10	Chen, Sok and Sok (2005)	Taiwan and Cambodia	School facilities and interactive network, teachers qualification, funding and tuition, academic curriculum and extracurricular activities
11	Lagrosen, Seyyed- Hashemi, &Leitner, (2004)	Australia and Sweden	Campus facilities , teaching practices, courses offered, information and responsiveness, internal evaluations, external evaluations, corporate collaboration, collaboration and comparisons, computer facilities, library resources and post-study factors
12	Joseph, Stone and Joseph (2003)	Australia	Physical aspects, value of education, Cost, facilities and resources, General, Degree content and structure,
13	Kwan and Ng (1999)	China and Hong Kong	Facilities, Course content, assessment, concern for students, social activities, medium of instruction and people.
14	Gatfieldet	Australia, one University	Academic institution, recognition, guidance and campus life
15	Ford, Joseph	New Zealand	Program, Physical aspects, career, academic



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	and Joseph	and USA	reputation, location, opportunities, time and					
	(1999)		other					
16	Li and Kaye	UK, one	Reliability, responsiveness, assurance,					
	(1998)	University	empathy, tangibles					
17	LeBlanc and	Canada, one	Faculty, Administration/Contact personnel,					
	Nguyen(1997)	University,	reputation, responsiveness, physical					
		one Business	evidence, curriculum and access to facilities					
		School						
18	Owlia and	UK	Tangibles, competence, attitude, content,					
	Aspinwall		delivery, reliability					
	(1996)							

### Gaps in Research

Though lot of Research has been done in service quality in higher education still there are many important aspects which were not studied. Most of the studies have not examined service quality There is no generic scale in India to assess the quality of services in higher education. Scales have been developed to measure service quality but these scales could not cover all aspects of service quality in higher education especially in Indian Context. Few studies have been done in Indian Context especially focusing on the Southern part of India. In this scenario this study in service quality in higher sector in South education India (commonly known as the center for global education) has been proposed. The objectives have been framed mainly focusing on these research gaps

#### **Objectives of the study:**

To identify critical factors effecting service quality in higher education

#### Methodology:

The study has been conducted in southern India covering five main states namely Andhra Pradesh, Telangana, Karnataka, Tamilnadu and Kerala. All five states are prominent and preferred states for higher education with greater growth potential (commonly known as the center for global education). The study sample was 2500 respondents drawn from 25 Universities. The study focuses majorly on Higher Education Service Quality .The **Table 1-KMO and Bartlett's Test**  results of the study are applicable for the selected Universities, by and large for the southern India only.

Survey method was employed to collect the Primary data. From the literature review and discussions with experts and academicians a questionnaire was developed based on one of the most accepted service quality models, namely (SERVQUAL- Parasuraman et al., 1988, 1991)

#### **Critical Factors of Service Quality**

To identify the important dimensions of service quality as perceived by University students of South India Exploratory Factor Analysis technique was employed. The factor analysis identified five critical factors which were named as -Governance and Management, Research Consultancy extension, Curricular and aspects &Teaching, Learning &Evaluation and Infrastructure and learning Resources (based on Eigen values>1). The results showed the value of Kaiser-Meyer-Olkin (KMO), is 0.894 a measure of sampling adequacy. The KMO value must exceed 0.50 and the value above 0.8 is considered meritorious (Hair et al., 2008). The total variance explained by all these four factors was 56 percent. The result were significant at 0.05,  $x^2 = 8102.415$  (p = 0.000) which clearly indicates the suitability of factor analysis.

Kaiser-Meyer-Olkin Measure of Sat	mpling Adequacy.	0.894
Bartlett's Test of Sphericity	Approx. Chi-Square	8102.415
	Df	210
	Sig.	0.000



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#### **Table 2-Total Variance Explained**

			Tota		nce Expla				
				Extraction Sums of Squared			Rotation Sums of Squared		
	Initial Eigenvalues		Loadings			Loadings			
		% of			% of			% of	
		Varianc	Cumulative		Varianc	Cumulative		Varianc	Cumulative
Component	Total	e	%	Total	e	%	Total	e	%
1	6.422	30.579	30.579	6.422	30.579	30.579	3.251	15.482	15.482
2	1.651	7.864	38.443	1.651	7.864	38.443	2.775	13.212	28.694
3	1.315	6.260	44.703	1.315	6.260	44.703	1.978	9.420	38.114
4	1.255	5.978	50.681	1.255	5.978	50.681	1.953	9.299	47.413
5	1.201	5.718	56.399	1.201	5.718	56.399	1.887	8.985	56.399
6	.960	4.572	60.971						
7	.789	3.755	64.726						
8	.747	3.555	68.282						
9	.703	3.348	71.630						
10	.654	3.112	74.742						
11	.632	3.012	77.754						
12	.607	2.890	80.643						
13	.579	2.759	83.402						
14	.523	2.493	85.895						
15	.490	2.334	88.228						
16	.483	2.298	90.527						
17	.469	2.234	92.760						
18	.405	1.927	94.688						
19	.389	1.850	96.538						
20	.381	1.813	98.350						
21	.346	1.650	100.000						
Extraction M	/lethod:	Principal	Component A	nalysis.					

### Table 3 - Rotated Component Matrix

	Components					
				Teaching	Infrastru	
Items	Governance	Research	Curricular	Learning	cture and	
	and	consultancy	aspects &	and	learning	
	Management	and extension	Teaching	evaluation	resources	
University follows proper	0.645					
administrative policies and						
procedures						
Academic and administrative	0.645					
records are maintained						
accurately						
University follows good governing	0.634					
mechanism						
University looks after the well-	0.633					
being of its vicinity						
Administrative staff are willing to	0.589					
help and understand your						
specific needs						
University maintains greenery	0.587					
across campus						
University has effective and	0.582					
efficient leadership						
University has foreign		0.767				
collaboration in research projects						
University has collaborations		0.734				
with foreign Universities and						
promotes international activities						
like student exchange						
programme						
University operates an excellent		0.603				
entrepreneurship cell						



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0.599			
0.599			
	0.843		
	0.720		
	0.698		
		0.779	
		0.747	
		0.702	
			0.826
			0.746
			0.580
aiser Normalization.			
		nponent Analysis. Kaiser Normalization.	0.599         0.843           0.720         0.720           0.698         0.779           0.698         0.779           0.747         0.747           0.702         0.702           0.702         0.702           0.702         0.702           0.702         0.702           0.702         0.702           0.702         0.702

### **Table 4-Reliability Analysis**

		Scale		Cronbach'	Cronbac
		Variance	Corrected	s Alpha if	h's
	Scale Mean if	if Item	Item-Total	Item	Alpha of
	Item Deleted	Deleted	Correlation	Deleted	21 items
University follows proper administrative policies					
and procedures	72.1128	176.451	0.590	0.876	
Academic and administrative records are					
maintained accurately	72.0088	177.599	0.547	0.877	0.884
University follows good governing mechanism	72.1816	174.824	0.616	0.875	
University looks after the well-being of its vicinity	72.0392	179.585	0.485	0.879	
Administrative staff are willing to help and					
understand your specific needs	72.1648	175.014	0.573	0.876	
University maintains greenery across campus	71.7312	181.945	0.392	0.881	
University has effective and efficient leadership	72.0856	176.253	0.559	0.877	
University has foreign collaboration in research					
projects	72.5272	178.190	0.464	0.879	
University has collaborations with foreign					
Universities and promotes international activities					
like student exchange programme	72.4512	177.241	0.473	0.879	
University operates an excellent entrepreneurship					
cell	72.2912	177.025	0.504	0.878	
University has modern accommodation with all					
safety and security measures	72.3104	175.849	0.540	0.877	
The placement cell works efficiently	72.4888	178.199	0.449	0.880	
Department has well qualified staff	71.8320	179.888	0.419	0.881	
Department has adequate staff	72.1024	179.855	0.429	0.880	
Teachers have positive attitude towards students	71.8600	180.487	0.422	0.881	
University conducts exams at right time	71.7608	179.534	0.443	0.880	
University announce results promptly	72.0704	178.025	0.463	0.879	
Department timely informs exam schedules and					
time tables	71.6992	179.829	0.452	0.880	
Library offers wide range of resources	71.8296	179.509	0.471	0.879	
Library has a wide range of journals and					
magazines	71.7880	181.355	0.414	0.881	



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		Scale		Cronbach'	Cronbac
		Variance	Corrected	s Alpha if	h's
	Scale Mean if	if Item	Item-Total	Item	Alpha of
	Item Deleted	Deleted	Correlation	Deleted	21 items
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Computer labs are equipped with latest software					
and internet facilities	72.0568	177.160	0.476	0.879	

**Reliability test** for the data collection instrument indicated that the Cronbach alpha is 0.884 satisfying the reliability criteria (acceptable standard is 0.5). Reliability for all the constructs surpassed the recommended level of 0.60 (Table-4.) which indicates the strong reliability of the instrument.

### **Conclusion:**

The Uniqueness of this research is developing scale to measure service quality in 25 major Universities of South India based on students perspective using NAAC and NBA Parameters where actually few studies have been done addressing these two aspects in India. This study identified the factors effecting service quality in higher education which plays a vital role in effecting the socio-economic development of the economy. The theoretical framework focused on student perceived service quality has been tested empirically and theoretically in Indian settings. The factor analysis identified five critical factors which were named as -Governance and Management, Research Consultancy and extension, curricular aspects & Teaching, Learning & Evaluation and Infrastructure and learning Resources. The contributions of this study are methodologically significant as it is one of the few studies that tests service quality in Higher Education sector in Indian context. This research has filled gaps in the area of service quality in Higher Education sector by identifying the important predictors of service quality in Indian Universities which can be used in Management research in similar and other countries. Moreover, this study develops its own scale to measure service quality

The research contributes to the existing knowledge both industrial as well as theoretical perspective. The research adds new insights within the education context. The study gives rise to the development of new concepts and models



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in the area of Higher Education Service Quality. The study identified that students are not getting complete support from Universities in terms of information or advices. It was also found that proper coordination and communication is missing among the teaching and nonteaching which is also affecting the management. Majority of the Students felt that Political Intervention is one of the main factors affecting the quality of Education in Universities; Innovative Programmes in Teaching and skill based courses have to be incorporated. Students have to be given more options and flexibility in selection of the courses. University and Industry Collaborations will help the students in getting practical knowledge for improving the curriculum and for Placements. Twinning Programmes may be provided in State Universities. Good governance Practices like transparency, unbiasedness in all University Policy Matters, gender equity may be adopted in Universities in a more diligent way. Existing evaluation system has to be changed drastically. More stringent measures need to be adopted for better screening and evaluation. State Universities have to go for Library Up gradation regularly. The role of Higher Education sector is vital in the development any economy, services in any higher education institute has become the prime differentiation strategy.

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