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Empirical assessment of influential strength of service quality dimensions in Indian Universities, part I

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Abstract

The Indian management education sector is experiencing a highly competitive and complex environment today. Following which, the Universities and other higher educational institutions have realised the importance of being distinct from their competitors. One of the major pathway to do so is maintaining high standards in educational service quality which will foster developing positive bonding with the students. The present study is carried out with an objective to explore the dimensions influencing the service quality in management education particularly in public university system and to prioritize the dimensions from the perspective of management students. The study engaged exploratory factor analysis and independent RIDIT analysis methodology to analyse the survey responses of 211 management students of public universities. The analysis yielded seven perceived service quality dimensions,namely physical factors, leisure factors, academic factors, industry collaborations, responsiveness, learning outcome and personality development as perceived by the students from EFA. The individual items of these dimensions were then prioritised using RIDIT analysis for further interpretations and business insights. This study may benefit the university decision makers in business studies to formulate policies and strategies to assure superior students satisfaction which can later benefit the university by showing positive behavioural intentions.

Keywords : Perceived service quality, management education, RIDIT analysis, student satisfaction, higher education

I. Introduction

Management education in India has witnessed a phenomenal growth and notable transformations in the last few decades, since its inception in the 1950s (Mahajan et al., 2014). The transformations occurred because of various reasons including globalization and global competition, rapid technological, social and economic

developments, changing as well as demanding behaviour of students and shifting business environments (Temtime&Mmereki, 2011; Sahney, 2011a; Choudhury, 2015). Demand for management programmes led a huge quantitative growth in the institutions imparting management education in the recent past (Mahajan et al., 2016). This sudden quantitative growth in business schools in the country had augmented the challenges for their sustainability (Choudhury, 2015). As a result, the Indian management education is witnessing a tough situation at present. These challenges were escalated further after the international educational institutions started showing their interest for their entry in the Indian higher education market including management programmes. As a result, the Indian higher education sector was forced to initiate improvement measures in educational service quality with student centric approaches (Choudhury, 2015). These competitive situations have in fact attracted the attention of academic decision makers and researchers to explore the educational service quality from the students view point (Bhardwaj, 2015). There is an increase in the studies accounting for how the students perceive the educational service quality influencing their satisfaction levels and their future behavioural intentions (Sahney, 2011a, b; Narang, 2012; Yusof et al., 2012).

Knowing the fact that, the present management education sector is experiencing a highly competitive and complex environment in India, the universities and other higher educational institutions have realised the importance of being distinct from their competitors. This can be done through maintaining superior educational service quality by focusing on effective defensive marketing strategies including retention of the students or developing positive bonding with the students (Fornell&Wernerfelt, 1987; Phadke, 2011). The Universities acting as education service providers, across the globe, are thriving to maintain and deliver good quality of educational services to the students (Clemes, Cohen & Wang, 2013), in order to gain and maintain sustainability in the prevailing environment (DeShields, Kara &Kaynak, 2005). The specific objectives of the present study are to explore the dimensions influencing the service quality in management education particularly in public university system and to prioritize the dimensions from the perspective of management students.

The present study has been conducted in three phases all together for a better generalization of the findings in decision making. This integrated attempt would enhance the applicability of these methods over their separate usage (Sahney, 2011). The first phase of the series will include exploration of various perceived service quality dimensions based on the survey done on management students by using modified SERVQUAL scale and then prioritizing these dimension items using RIDIT analysis methodology. The second phase will include induction of another algorithm known as Grey Relational Analysis (GRA) to rank the identified dimensions to verify its' robustness for decision making. This phase will attempt to conclude a list of service quality dimensions perceived by the management students' of Indian Universities. In the final phase, TOPSIS methodology will be applied in order to assess the ranking of the Universities (represented in the sample) based on these dimensions. The present paper is restricted to first phase of the series, viz., identification of the dimensions and its prioritization using RIDIT analysis method.

II. Literature Review

The higher educational service quality is a multifaceted notion which lacks one exclusive explanation (Marshall, 1998), and has been tried by various authors to define it. Literature captures definitions for educational service quality as prevention of flaws in the process of education (Crosby, 1979); act of superiority in education (Peters et al., 1982) and the most accepted version as meeting or exceeding customer's expectations of education(Parasuraman et al., 1985).Among the contemporary studies, Sultan and Wong (2010) proposed assurance, capability, competencies, dependability, effectiveness, efficiency, semester-syllabus, unusual situation management as primary dimensions for measuring students' perceived service quality. In the same notion, Annamdevula and Bellamkonda (2012) describes academic facilities, administrative services, campus infrastructure, support services, teaching and course content as students' perceived service quality dimensions. Jain et al. (2013) discussed academic facilities, curriculum, industry interaction, input quality, interaction quality, non-academic processes, and support facilities as primary dimensions for measuring students' perceived service quality.

Consistent with the service quality literature, service quality of management education too depends on a number of dimensions for its assessment and measurement. LeBlanc and Nguyen (1997) proposes access to facilities, administrative personnel, curriculum, faculty, physical evidence, reputation, responsiveness as dimensions for measuring perceived service quality of management students in their study. Similarly, Ford et al. (1999) proposes academic reputation, career opportunities, location, others (influence of peer/family and word-of-mouth), physical aspects/cost, programme issues, time as dimensions of perceived service quality in management education. Oldfield and Baron (2000) propose acceptable elements, functional elements and requisite elements as dimensions for business students' perceived service quality. Further, it has been argued that it is anassortment of eight important factors specifically admission procedure, curriculum, faculty orientation and development, graduate clientele, industry academia interaction, infrastructure, pedagogy and placement facilities (Punia&Kundu, 2005). It can be measured by using the five dimensions namelyattitude, competence, content, delivery and reliability in management education (Sahney et al., 2011a, b). Yusof et al. (2012) proposes a different set of dimensions to assess perceived service quality in management education namely assurance, communication, empathy, knowledge/expertise, reliability, responsiveness, self-development, social responsibility, systems/secondary services; tangibles (program quality and services). In the same context Narang (2012) used as perceived service quality dimensions academics, learning outcomes, personality development, physical facilities, and responsiveness for management education. Mahajan et al. (2014) used academic standards, industry linkages, organization structure and practices, research & consultancy, accreditation, placements, infrastructure, branding, abiding by regulatory bodies, financial resources, leadership, extra-curricular activities and location for measuring management students' perceived service quality in their study. Similarly, Verma and Prasad (2013) used competence, course structure, employability, inculcation of entrepreneurial spirit, industry institute interaction, internship output, physical aspects and reliability as dimensions for measuring

management students' perceived service quality. Choudhury (2015) proposes 4 dimensions sufficient for assessing perceived service quality of management students as competence, tangibles, responsiveness, convenience.

It is evident that there has been a large amount of research to assess educational service quality perceptions in higher education including management education as well. Still, an inclusive study concentrating the precedence of these PSQ dimensions seems lacking in Indian management education sector in particular. Prioritizing the service quality dimensions or the items representing it would help in understanding the students' perceptions on the services provided by the University in their priority. This will also enhance the decision making process for the university performance and reputation facilitating in attaining higher rankings among other universities. Even though, exploration of management education services components is evident in literature, there is scarcity in studies focusing to prioritize them from students' perspective (Pradhan, 2008). A small number of researchers have attempted in identifying the dimensions and ranking them in different industry verticals like in manufacturing industry (Mohanty and Gahan 2012), management education (Pathak et al., 2018), retail fashion stores (Kaushal 2013), banking (Panda and Kondasani 2014) and transfer facility services (Sadhukhan et al. 2015). However, there is very limited evidence of studies that has attempted to prioritizethe management education service quality dimensions in Indian context. In view of current turbulent situation of management education sector in India, a study focussing to prioritize the students' perceived service quality dimensions becomes significant. The present study therefore, attempts to discover and prioritize the dimensions based on management graduates' viewpoint in the universities of NER of India. The technique employed in the present study to prioritize the dimensions is RIDIT analysis and the algorithm for the same is explained in following sections. The study will help the university authorities to bring meaningful, valuable, and systematic and progressive changes in the Indian management education sector by understanding the students' experiences.

III. Methodology

The research sample for the present study comprised of management studentspursuing MBA in the public universities of North eastern region of India and who showed their willingness to contribute in the survey. In total ten (10) public universities were considered for data collection. The students under study universe comprised from the batches of 2017-19 and 2018-20, which got a mix of 1st year and 2nd year students. The questionnaires were sent to the participants through e-mail along with a cover letter explaining the purpose of the study and assurance of the privacy of their information shared to the researcher. Finally, 216 out of 350 distributed e-questionnaires were received through Google document receiver with a response rate of 61.71%, which is acceptable for analysis (Nulty, 2008). All 216 responses were screened and 5 were found to be non-usable and were excluded (Sekaran&Bougie, 2016). Finally, 211 usable filled up e-questionnaires were used for further analysis of the data fulfilling the minimum requirement of sample size between 100-500 observations (Hair et al., 2010). The research instrument was divided into two sections, first included nine (9) questions about management graduates' socio-demographic profile and the second included forty one questions

referring management students' perceived service quality (PSQ) items. Each Likert-type scale item comprised seven opinions ranging from stronglydisagree as 1 strongly agree as 7, as 7-point Likertscale is optimum and effective in studies focussed to social science and marketing domain (Schall, 2003). The questionnaire waspretested to ensure that the wordings, sequencing and length of questions and range of scale were proper or not.

IV. Data Analysis and results

The present study utilizes the Bartlett's test and Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy with the intention to test and confirm the suitability of the sample data for exploratory factor analysis (EFA). The result of both the tests were satisfactory with the KMO score of 0.865 and score of Bartlett's test of Sphericity as χ^2=5393.275, df = 630, p< 000. The result of KMO score (Table 2) in the present study was above 0.80 and hence it is supported that the variables are considerably interrelated and they share common factors (Kaiser, 1974). In addition to this, the Bartlett's test of sphericity confirms that the data can be proceeded for principal component analysis or in other words for structure detection (Field, 2009).

Cronbach alpha (α) was computed for reliability test of the items and overall α was found to be 0.892 (Table 1), indicating good consistency among items (Nunnally& Bernstein, 1994). Principal Components Analysis was used selecting varimax rotation and Kaiser Normalization to get thirty six (36) elements culminated into seven factors (Table 3) which represented 68.426% of the explained variance. All the seven factors have shown more than 0.5 loading values of all the items and therefore all the seven factors were maintained. Eigen values of all the factors are greater than or equal to 1.0 which facilitated in deciding the factors for analysis as recommended by Hair et al. (2010). The communalities of the attributes were in the range of 0.385 to 0.887 indicating that all the items have an adequate amount of shared variance with other items (MacCallum et al., 1999).

The seven factors identified were named according to their item behaviour as Physical Factors (PF), Leisure Factors (LF), Academic Factors (AF), Industry Collaborations(IC), Responsiveness (RES), Learning Outcome (LO) and Personality Development (PD).Factor 1 consisted of eight elements and explained 26.531percent of the variance in the data with an Eigen value of 9.551. This factor represented items that were associated with infrastructure and physical facilities in the university.

Table 1: Reliability Statistics

Cronbach's Alpha	N of Items
.892	36

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.865
Bartlett's Test of Sphericity	Approx. Chi-Square	5393.275
	df	630
	Sig.	0.000

Table 3: Rotated Component Matrix

	Component						
	1	2	3	4	5	6	7
PF01	.859						
PF02	.803						
PF03	.797						
PF04	.793						
PF05	.767						
PF06	.760						
PF07	.756						
PF08	.740						
LF01		.851					
LF02		.829					
LF03		.801					
LF04		.746					
LF05		.736					
LF06		.710					
AF01			.926				
AF02			.920				
AF03			.905				
AF04			.812				
AF05			.679				
IC01				.854			

IC02				.843			
IC03				.753			
IC04				.732			
RES01					.911		
RES02					.900		
RES03					.770		
RES04					.745		
LO01						.678	
LO02						.662	
LO03						.658	
LO04						.633	
LO05						.568	
LO06						.566	
PD01							.742
PD02							.711
PD03							.660

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 7 iterations.

Factor 2 represented six items that described the nature of leisure and free time for the students at the university and this accounted for 13.274percent of the variance in the data with an Eigen value of 4.779. Factor 3 explained 7.637percent of the variance with an Eigen value of 2.749 and addressed academic facilities of the programmeat the University comprising five elements. Factor 4 showed relation to the industry collaborations of the universities with variance of 6.051percent in the data with an Eigen value of 2.178 comprising four elements. Factor 5 represented four items that described the responsiveness for the students' concerns from the University and this accounted for 5.656 percentof the variance in the data with an Eigen value of 2.036. Factor 6 represented six items that described the probable and expected outcome from the programme for a management student at the university and this accounted for 4.972 percent of the variance in the data with an Eigen value of 1.790. Factor 7 represented three items that described the nature of personality development activities and its facilities at the university and this accounted for 4.306 percent of the variance in the data with an Eigen value of 1.550. Table 3, shows rotated component matrix for the data used in determining the constructs of management students' perceived service quality. It shows all factor loading scores where it can be seen that one variable from each of the academic and personality development factors and six from learning outcomes factor is <0.7, which needs immediate attention for improvements. Generally, factor loading score >0.7 has a high impact on the variables and is considered to influence the variable significantly (Hair et al., 2010).

The term "RIDIT' originally stands for 'relative to an identified distribution' initially proposed by Bross (1958) and it is a probability transformation based on some

empirical distribution that is taken as a reference population or group. RIDIT analysis distribution free technique because it does not make any assumptions about normality or any other form for the distribution under study (Uwawunkonye&Anaene, 2013; Fleiss, Levin, & Paik 2003). RIDIT is basically a weight allotted to a response group which reflects the probability of that group appearing in the reference distributions (Kondasani, 2016). This is predominantly helpful in statistical analysis for items involving ratings on a 3-point scale or more which follows the universal ratings and indices with several items (Beder& Heim, 1990). A RIDIT value has a range that come within reach of 0.00 to 1.00. RIDIT analysis uses computing an average RIDIT value for a class rather than the proportion of respondents giving each of the responses in the dependent variable.

Table 4: RIDIT values for the Reference dataset

	1	2	3	4	5	6	7	
LF03	0	3	19	53	28	69	39	211
LF01	0	1	14	52	27	82	35	211
LF05	1	2	17	49	30	66	46	211
LF02	1	1	12	55	34	69	39	211
LF06	1	1	12	59	47	58	33	211
LF04	0	1	8	44	44	80	34	211
PF04	1	0	5	35	24	81	65	211
PF05	0	1	5	21	30	96	58	211
PF08	1	0	4	25	19	104	58	211
PF01	1	1	4	23	25	102	55	211
PF02	0	1	3	36	22	96	53	211
PF06	1	1	6	33	12	73	85	211
PF03	1	1	4	26	20	63	96	211
IC04	0	2	10	31	25	84	59	211
IC03	2	0	6	32	29	92	50	211
IC02	3	1	12	28	32	74	61	211
IC01	2	2	10	40	18	76	63	211
LO03	0	0	0	0	0	93	118	211
LO01	0	1	0	0	0	86	124	211
LO02	0	0	0	0	0	85	126	211
LO04	0	0	1	0	0	83	127	211
LO05	0	1	0	0	0	90	120	211
LO06	0	1	1	0	1	92	116	211
PF07	6	26	0	0	20	63	96	211
PD02	0	0	0	0	103	97	11	211
PD03	0	0	0	0	77	120	14	211
PD01	0	0	0	0	110	83	18	211
AF05	0	1	6	20	38	91	55	211
AF04	1	0	16	26	47	78	43	211

AF03	0	0	8	26	35	86	56	211
AF02	0	0	8	21	43	86	53	211
AF01	0	0	8	27	38	83	55	211
RES03	3	5	18	30	53	57	45	211
RES02	1	8	19	21	52	59	51	211
RES01	1	3	17	24	48	73	45	211
RES04	2	5	17	18	47	62	60	211
Freq	29	70	270	855	1178	2932	2262	7596
1/2 Freq	14.5	35	135	427.5	589	1466	1131	
ri	14.5	64	234	796.5	1813	3868	6465	
Ri	0.001909	0.008425	0.030806	0.104858	0.238678	0.509215	0.851106	

Source: Author's Compilation

The survey data of management students' perceived service quality in public universities of North Eastern region of India is selected as the reference data set for the RIDIT calculation and analysis. The occurrences of their responses are shown in Table 4. Last row of the table referred as reference data set table displays the RIDITs (Ri) for each item category of the data set. Further, Table 5 illustrates the weights which are then added to get the RIDIT values for the items put forward for ranking. This sum is then used to allocate the rankings to the items using the algorithm discussed earlier. The rank is prioritised according to the value of the sum in descending order, i.e. greater sum value will be ranked 1st and so on. Consequently the higher the RIDIT value is, the higher priority the sample places on the item will be (Kumar & Bhattacharyya, 2017). We assign priority rankings to the items with the highest priority going to the highest RIDIT value (Panda, &Kondasani, 2017).

Table 5: Computation of the RIDIT values for the comparison datasets and prioritization

Item	1	2	3	4	5	6	7	LSL	USL	Sum	Rank
LF03	0.000000	0.000012	0.000277	0.002634	0.003167	0.016652	0.015731	0.359633	0.409846	0.384739	35
LF01	0.000000	0.000004	0.000204	0.002584	0.003054	0.019789	0.014118	0.370571	0.424 51	0.397 54	30
LF05	0.000001	0.000008	0.000248	0.002435	0.003394	0.015928	0.018555	0.378747	0.432627	0.405687	28
LF02	0.000001	0.000004	0.000175	0.002733	0.003846	0.016652	0.015731	0.366404	0.416451	0.391428	34

LF06	0.00001	0.00004	0.00175	0.02932	0.05317	0.13997	0.13311	0.336535	0.378209	0.357372	36
LF04	0.00000	0.00004	0.00117	0.02187	0.04977	0.19307	0.13715	0.376911	0.429206	0.403058	29
PF04	0.00001	0.00000	0.00073	0.01739	0.02715	0.19548	0.26219	0.465922	0.539979	0.502951	13
PF05	0.00000	0.00004	0.00073	0.01044	0.03394	0.23168	0.23395	0.473608	0.547943	0.510776	11
PF08	0.00001	0.00000	0.00058	0.01242	0.02149	0.25099	0.23395	0.48043	0.55847	0.51945	10
PF01	0.00001	0.00004	0.00058	0.01143	0.02828	0.24616	0.22185	0.470824	0.545887	0.508356	12
PF02	0.00000	0.00004	0.00044	0.01789	0.02489	0.23168	0.21378	0.45318	0.52426	0.48872	15
PF06	0.00001	0.00004	0.00088	0.01640	0.01357	0.17617	0.34286	0.504996	0.594874	0.549935	9
PF03	0.00001	0.00004	0.00058	0.01292	0.02262	0.15204	0.38723	0.526334	0.624568	0.575451	7
IC04	0.00000	0.00008	0.00146	0.01541	0.02828	0.20272	0.23799	0.450705	0.52116	0.485933	17
IC03	0.00002	0.00000	0.00088	0.01590	0.03280	0.22203	0.20168	0.439675	0.506949	0.473312	22
IC02	0.00003	0.00004	0.00175	0.01391	0.03620	0.17859	0.24605	0.442319	0.510828	0.476573	21
IC01	0.00002	0.00008	0.00146	0.01988	0.02036	0.18341	0.25412	0.443791	0.514875	0.479333	20
LO03	0.00000	0.00000	0.00000	0.00000	0.00000	0.22444	0.47597	0.637593	0.763237	0.700415	5
LO01	0.00000	0.00004	0.00000	0.00000	0.00000	0.20755	0.50018	0.642726	0.772801	0.707763	3
LO02	0.00000	0.00000	0.00000	0.00000	0.00000	0.20513	0.50824	0.647465	0.779289	0.713377	1
LO04	0.00000	0.00000	0.00015	0.00000	0.00000	0.20031	0.51228	0.646488	0.778973	0.71273	2
LO05	0.00000	0.00004	0.00000	0.00000	0.00000	0.21720	0.48404	0.637799	0.764765	0.701282	4
LO06	0.00000	0.00004	0.00015	0.00000	0.00113	0.22203	0.46791	0.629481	0.753021	0.691251	6
PF07	0.00005	0.00104	0.00000	0.00000	0.02262	0.15204	0.38723	0.513513	0.612467	0.56299	8
PD02	0.00000	0.00000	0.00000	0.00000	0.11651	0.23409	0.04437	0.364695	0.425257	0.394976	33
PD03	0.00000	0.00000	0.00000	0.00000	0.08710	0.28960	0.05647	0.397196	0.469151	0.433173	24
PD01	0.00000	0.00000	0.00000	0.00000	0.12443	0.20031	0.07261	0.370302	0.424384	0.397343	31

AF 05	0.00 000	0.00 004	0.00 088	0.00 994	0.04 298	0.21 961	0.22 185	0.460 266	0.530 346	0.495 306	14
AF 04	0.00 001	0.00 000	0.00 234	0.01 292	0.05 317	0.18 824	0.17 345	0.401 782	0.458 458	0.430 12	25
AF 03	0.00 000	0.00 000	0.00 117	0.01 292	0.03 959	0.20 755	0.22 589	0.452 736	0.521 491	0.487 113	16
AF 02	0.00 000	0.00 000	0.00 117	0.01 044	0.04 864	0.20 755	0.21 378	0.448 275	0.514 879	0.481 577	18
AF 01	0.00 000	0.00 000	0.00 117	0.01 342	0.04 298	0.20 031	0.22 185	0.446 323	0.513 138	0.479 73	19
RE S03	0.00 003	0.00 020	0.00 263	0.01 491	0.05 995	0.13 756	0.18 152	0.371 622	0.421 961	0.396 792	32
RE S02	0.00 001	0.00 032	0.00 277	0.01 044	0.05 882	0.14 239	0.20 572	0.392 524	0.448 405	0.420 464	27
RE S01	0.00 001	0.00 012	0.00 248	0.01 193	0.05 430	0.17 617	0.18 152	0.398 523	0.454 525	0.426 524	26
RE S04	0.00 002	0.00 020	0.00 248	0.00 895	0.05 317	0.14 963	0.24 202	0.424 327	0.488 59	0.456 458	23

Source: Author's Compilation

The Kruskal-Wallis *W* was calculated to be 1003.387. Because the *W* (1003.387) is significantly greater than χ^2 (36–1) = 49.802, it can be surmised that the view about the scale items among the respondents are statistically dissimilar one way or another. This assessment is a rank-based nonparametric assessment that has a fair chance to be implemented in order to establish the existence of statistically significant differences between two or more groups of an independent variable. It does not call for the data to be normal, but instead uses the rank of the data values for the analysis.

The ranking calculation and analysis performed in the earlier sections concluded that Learning Outcomes item (LO02) – 'Design of course structure based on job requirements', is of the highest priority item followed by (LO04)– 'Sense of social obligation' and third being the item (LO01)- 'Practical orientation and adaptability to modern techniques' among the total PSQ dimension items under study. It is interesting here to have a note that, all the six ranking priorities by the management students are given to the Learning Outcomes factor of service quality, out of top ten ranked items. Rest four belongs to the Physical Facilities factor i.e. the seventh rank item is (PF03) - 'Well equipped computer laboratories with modern facilities', and tenth being the (PF08) - 'Effective classroom management'.

The results of the present study shows that Learning Outcomes is the most important and significant dimension in the case of management education in public universities of North Eastern region of India as far as perception of service quality is concerned.

Further, the lowest priority ranking among the items was found to be (LF06) – 'Places on campus to relax during the day' from the Leisure Factor dimension. The result clearly shows that the lowest five items comprises three items (LF06, LF03 and LF02) from theLeisure Factor dimension, one (PD02) from Personality Development

and one (RES03) from Responsiveness dimension of service quality in the sample under study. This means that the university leisure facilities, personality development activities and responsiveness toward students' concerns are inadequate and needs to be considered for improvements. The study shows that the students are more focussed on their return on investments, which is their learning outcomes rather than other service quality factors. This becomes a challenging task for the universities and in particular the public universities, to balance between the academic programme and their expected returns, which tends to vary from student to student. Few student want to join corporates, so they expects good placement, few students focus on entrepreneurship, so they expect more industry related information sharing and few wants to excel in subject domain and research, so they expect high quality and in-depth academic deliveries. On the one hand this becomes an issue to be concerned on and on another it become an opportunity for the universities for improvements.

V. Discussion

In Indian management education sector, there exists various factors that influence the students' perceived service quality. Therefore, it is imperative to identify and classify those factors in order to highlight the most important factors needing quick attention. The empirical results of the present study put forth an evidence that management students' perceived service quality can reliably be measured with thirty six items loaded on seven quality dimensions as physical facilities (PF), leisure factors (LF), academic factors (AF), industry collaborations (IC), responsiveness (RES), learning outcomes (LO) and personality development (PD). In addition to this, the study also confirms the multidimensional nature of service quality in higher education particularly in management education which is consistent with the findings of previous studies (Choudhury, 2015; Yusof et al., 2012; Sahney, 2011; Sohail&Shaikh, 2004).

As mentioned earlier, the contribution of the present study is in prioritizing the management educational service quality dimensions for better decision making facilitating the university performance. For the same, the study employed the RIDIT methodology independently for dimensions prioritization in the management education setting in the public universities of NER. Prioritization helps in better decision making by university managers in identifying the best service quality practices that can be adopted to improve the overall performance of the university. The prioritization found that the individuals placing more importance on the two items (LO02 and LO04) in the factor related to learning outcomes. On the same note the items (LF06 and LF03) with least importance zone of graduates' radar falls in the factor related to leisure factors. This result provides a clear understanding that the students give more emphasis to their learning outcomes than their leisure. Accordingly the University can formulate their academic and non-academic sessions facilitating the learning scopes for the betterment of the students' future.

VI. Limitations of the Study and Scope for Further Research

Even though the present study makes significant contributions to the literature of management graduates' perceived service quality, it has few limitations. First, the data for this study was collected from management students of ten north eastern public universities of India. Therefore, the results and findings cannot be generalised in as it is basis. In future, the researchers should attempt to extend the geographical area including more locations in India, and increasing the size of samples to get more insight toward generalizing the findings of the present study. Second, the study proposed four primary dimensions of service quality as perceived by management graduates, which may not be pertinent and generic for other programmes of higher educational sector as well as other service industry verticals. Future studies may consider adding or modifying the primary dimensions of perceived service quality to measure the educational service quality. Also the future researchers should consider adding or modifying the items constituting the dimensions to get more comprehensive conclusions as the items used in the present study are specific to management graduates of public universities of NER. The future studies should consider different prioritizing techniques to rank the items and the dimensions of the perceived service quality in higher education sector. Future research should be considered replicating the present study in different cultural and demographical contexts which will serve the purpose necessary for generalising the findings of this study.

VII. Managerial Implications

There are some managerial implications for the university managers/decision makers that can be drawn from the present study. First, the study suggests a roadmap to determine which service quality dimension guide toward higher or lower level of graduates' overall satisfaction. They should also concentrate on the items constituting the dimensions for a better service quality improvement plans. Second, the study put forward a direction for the university managers/decision makers to formulate an effective strategy to gain competitive advantage over others. Third implication of the study is the suggestion to have regular surveys and students/graduates interactions in order to monitor the implications of service quality program and/or track their expectations of the educational services over time.

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