A Study on Service Quality That Determines Students' Satisfaction: A Case Study of Liverpool John Moors University

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Abstract: *The primary purpose of this research is to determine students' satisfaction of Liverpool John Moores University (LJMU) based on service quality dimensions. This study also aims to discover relationships among different dimensions of quality service along with how students perceive quality service according to his/her different demographic profiles. This research is completely based on quantitative method (questionnaire survey) to collect data from respondents using core SERVQUAL method. Results chapter manifest required statistical testing such as, frequency, means, hypothesis testing (T-Test, ANOVA), regression, and factor analysis to critically examine and discuss the situation. This study also discuss how cultural, social, and geographic factors having influence over the satisfaction level and perception of quality in education. Finally, a model has been developed in relation to the findings that can be applied to the studied institution as well as other academic institutions.*
Keywords: Service quality, Customer satisfaction, Student satisfaction

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I. Introduction

With globalization, competition in every industry is increasing and education industry is no different from that. As an education provider LJMU's one of the major focuses should be on quality service toward students and the level of satisfaction among those students. Students of this generationhave greater knowledge regarding universities across the world and are gradually becoming more interactive and selective in regards to career and future goals (Sigala& Baum, 2003). Service quality measurements, therefore, becoming an essential task for institutions such asLJMUto get competitive advantage over other institutions in terms of getting quality students (Faganel&Macur, 2005). Furthermore, student experience has quantifiable advantages in National Student Survey (NSS) that contributes in league table position for universities. On the other hand, Postgraduate Experience Survey (PTES) does the same for postgraduate level, but it does not impact on league tables, rather, feeds into word-of-mouth advantage in terms of recruitment, particularly, international employment.

Based on the research purpose several objectives are established:

1. To investigate the service quality factors that have influence over the level of students' satisfaction.
2. To prepare questionnaire from validated and previously referenced literature for survey, based on the measure of reliability, responsiveness, competences, access, courtesy, communication, credibility, security, understanding, tangibility.
3. To measure the students' level of satisfaction on each service quality dimensions.
4. To examine demographic factors that affect satisfaction measures, which need improvement to increase the overall level of satisfaction among students.
5. To develop a model, which can be used by other academic institutions, for improving level of satisfaction based on service quality dimensions.

II. Literature Review

Service quality

Service quality scholars have been writing and developing theories of service quality over the past 40 years (Olorunniwo, et al., 2006). In the early era of measuring quality, marketing people of goods and services used the measurement of quality with the level of precision and perfection (Garvin, 1983). Manufacturing companies and other service providers started to perceive the quality product based on its flawlessness and soon providing quality products and service became one the most important marketing priorities among those companies (Rabin, 1983). Although the precision in quality was manageable for tangible goods, but quality service is something that could not be ensured in production level or through plant supervision (Zeithaml, et al., 1988) because services are more of performance rather than objects. Quality is not an easy thing to measure,

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therefore, managers and researchers often tend to confuse it with shininess, luxury or even weight (Crosby, 1979). In 1980s, quality started to become a major concern. In the literature of (Rabin, 1983) it has been mentioned strongly that customer demand for quality was rising very rapidly, thus, generated the demand for extensive research on service quality.

Recent researches and studies on service quality suggest similar idea with the core concept developed before. According to (Doglus&Doglus, 2013), service quality can be defined simply as the spread of customer expectation and perception. In another research, service quality is defined as a measure of how well matched a delivery of service is with the expectation of customers and the delivery of quality service means fulfilling customers expectation on a consistent basis too (Joewono& Kubota, 2007). Quality is something that is perceived differently from individual to individual, even sometimes any one person can perceive or conceptualize quality service differently in different times (Zafiropoulos, et al., 2005).Along with the traditional SERVQUAL methodology, five factors of service quality have been determined from customer point of view. These are core services, involvement of human during the delivery of service, how systemization manner the service being delivered (non-human element), tangibility of the provided services, and social responsibility (Sureshchanndra, et al., 2003).

Customer satisfaction

Satisfaction is the customers' assessment on a product or service based on the comparison they made whether the products or service meet their expectations and needs or not (Binter&Zeithaml, 2003). On the other hand, satisfaction can said to be the expected wishful results of received service, relating the consumption with after purchase incidents such as change in attitude (Mishra, 2009; Siddiqi, 2011). In the literature of service quality, it is evident that many researchers stated service quality to be the major factor that leads to customer satisfaction. Some researcher found linkage between satisfaction and perceived quality, some found the relationship in customer-technology interaction context, in internet retailing, in e-commerce industry, in consumer electronics e-tailers etc. (Wu, 2011). Hence, in this study the factors of service quality will be used to determine students' satisfaction.

Service quality and satisfaction in education sector

Education sector is quite a unique and different area of service (Alves&Raposo, 2009). As higher education, such as university level, falls certainly under the service industry this is no longer an unusual consideration by the academic institutions to ensure quality service to get and retain students with positive attitude (Yeo, 2008; Hill, 1995). Similar to all other service industry, education sector also frequently uses the SERVQUAL model to measure service quality with 22 instruments that construct mainly five dimensions. These dimensions are reliability, assurance, tangibility, empathy, and responsiveness (Zeithaml, et al., 1990). Some of the early research by Ramsden and Entwistle (1981) included factors such as, good teaching, help with the study problem, openness to students, freedom in learning, clear goals and standards and appropriate workload. Later, Ramsden (1991) described a modification to the Course Perception Questionnaire. In that literature additional factors were: concern for and availability to students, enthusiasm and interest of teachers, clear goals and organization, feedback on learning, encouragement of student's independence and active learning, appropriate workload and relevant assessment models, the provision of a suitable challenging academic environment (Ramsden, 1991). Clewes in 2003 identified three separate stages of educational service experience, which are Pre-course position (service expectations), the in-course experience and lastly, post-course service value assessment (Clewes, 2003).

Moreover, three different approaches to the measurement of quality in education can be identified. The first is the SERVQUAL approach (Donaldson &Runciman, 1995; O'Neill & Palmer, 2001). Second, it uses quality of teaching and learning (Marsh & Roche, 1993). The third one assesses total student experience (Hill, 1995; Aldridge & Rowley, 1998). Furthermore, some of the other researchers also have identified several factors of satisfaction for students from their study. Some factors of satisfaction were library service, technology support, catering, student union, social facility, overall learning experience, accommodation, food outlets, workload, environment, health service, teaching method, career, sports, equal opportunity, etc. (Hill, 1995; Aldridge & Rowley, 1998). However, still majority of the universities use their own developed variables, questions, and evaluation methods, which do not comply with reliability and validity (Oldfield & Baron, 2000). A more recent and comprehensive scale of measurement,which primarily focused on determining the authentic influencer of service quality within the education sector, identified 41-item instruments to judge reliability, validity, and unidimensionality. Researcher used both confirmatory factor (CFA) and exploratory factor analysis within this study. The major focus on this paper is to compare the measures of service quality while using only one industry that is the higher education (Firdaus, 2005b). It has also been mentioned that, while doing any research or conducting study on higher education, the use of HEdPERF explains the variance better than the SERVPERF scale in terms of unidimensionality, reliability, and validity (Firdaus, 2005a).

Meanwhile, another survey instrument to measure service quality of higher education industry has been developed, which is called the EduQUAL method. It is a systematic integrated approach specially designed for the education sector to measure satisfaction of the stakeholders (Mahapatra& Khan, 2007). Firdaus Abdullah, a researcher on education sector, stated the superiority of SERVPERF scale over the generic model of measuring service quality and the industry specific comprehensiveness of HEdPERF model. According to this author, if these two admirable model can be combined together to develop even a better one to measure in terms of the variance, reliability, unidimensionality, and validity. This technique can certainly reduce a chunk of overlapping variables to a smaller set of factors (Abdullah, 2005). However, while comparing the two technique SERVPERF and HEdPERF, HEdPERF found more reliable and better performing in terms of variance, reliability, unidimensionality and validity. There is evidence of debate about the most appropriate manner of defining service quality in higher education because as per the researchers the term service quality in education sector is an indefinite and controversial concept (Becket &Brookes, 2006). correspondingly, the disagreement and disbelieve in using the traditional service quality measures in higher education industry is still believed to be very murky in comparison to using it in other industries (Senthilkumar&Arulraj, 2011). Sultan and Wong conducted an extensive research on service quality in education sector and suggested that there are still potential scope and plenty of opportunity to research further in this field (Sultan & Wong, 2010).

This research contributes to strengthen the evidence of whether the dimensions of service quality can be used to measure the level of satisfaction for any higher education provider. Besides, this study tries to find relationship among the dimensions to a greater extend, which will ultimately help other researchers for further analysis upon those relationships.

III. Methodology

Methodology justification

This study intends to examine students' satisfaction based on service quality measures along with the variation of responses with demographic factors in LJMU. Using the quantitative method over the primary collected data, a relationship model in between the satisfaction dimensions and demographic variation is possible. This research is entirely focusing on quantitative method. The information is collected by questionnaires surveys using SERVQUAL model, which are regularly used in the management and business world (Saunders, et al., 2007). This study of satisfaction from service quality will led to find the connectedness, trend, and students' insight (Creswell, 2009).

Questionnaire design

The questionnaire is designed based on the previous research work on referee journals (Leitner, 2004) (Baron, 2000). Overall questionnaire is divided into two sections. In section 1, there are 11 nominal questions to examine the profile and demographic differences among the students. In section 2, there are 16 measure questions.All the 16 measure questions use dimensions of service quality measurements and scale for satisfaction level. These measure questions are designed based on Likert- 5 scale point basis where students can select from very satisfied (1) to very dissatisfied (5) option, including neutral scale (3). The questionnaire is very simple, straightforward, therefore, should not take more than five minutes to fill in by participants.

Population determination

The population, approximately 25,000, is the entire student base of Liverpool John Moores University. The study is not focusing on any particular department or subject area rather intend to survey all faculty students (Arts, Professional and Social Studies, Education, Health and Community, Science, and Technology and Environment) regardless of the timespan they are studying in LJMU. Sample size,which has been determined by using Yamane's formula (Israel, 1992), is 392 students and samples would be randomly selected from every departments and faculties around the university. As stated by (Bryman& Bell, 2007) the sample selection should not depend on any particular selective students' availability to avoid the intentional human bias to direct the survey result.

Process and evaluation

The questionnaire was circulated via students email base dated on January 2018. All of the existing students got the email with questionnaire and were requested to fill it in and send back. After the collection of filled in questionnaires responses were stored into (SPSS 21) software, then data analysis and numerous statistical testing areconducted. In-depth analysis was administered through statistical testing such as, mean analysis to see the level of satisfaction, T-Test and ANOVA to see the influence of nominal data over scale data, multiple regression analysis (step-wise) to focus on the effect that independent variables have, and exploratory factor analysis for reduction in number of variables for ease of analysis. The reliability of data is tested through runningCronbach's alpha test, ensuring the alpha is above 0.7.

IV. Results

Reliability of Data (Cronbach's Alpha)

The reliability test confirms the consistency of responses and allows the measurement to be repeatable and based on what we consider the study acceptable or not. The data is considered as reliable when the score of Cronbach's alpha stays in between 0.70 to 1.00.The reliability test result shows the alpha value 0.888, which is reliable and consistent; we, therefore, can proceed all the evaluation with this data.

Mean Analysis

Mean analysis is administered based only on the scale data from 16 measure questions. This portion is directly related with one of research objective, which is measuring the level of satisfaction based on service quality dimension. Below here mentioned the summary chart and decision of satisfaction for each measure question.

Factor	Limit		Mean	Decision range
Responsiveness and accessibility of academic staff	upper	4.30	**4.23**	**Satisfied – very satisfied**
	lower	4.16		
Responsiveness and accessibility of admin staff	upper	4.23	**4.16**	**Satisfied – very satisfied**
	lower	4.08		
Career information and guidance	upper	3.62	**3.55**	**Neutral - Satisfied**
	lower	3.47		
Appropriate design and content of curriculum	upper	4.39	**4.33**	**Satisfied – very satisfied**
	lower	4.27		
Appropriate delivery of modules	upper	4.18	**4.11**	**Satisfied – very satisfied**
	lower	4.04		
Cafes and canteen facilities	upper	2.58	**2.44**	**Dissatisfied - Neutral**
	lower	2.34		
Fairness in grading assessment	upper	4.09	**4.01**	**Satisfied – very satisfied**
	lower	3.93		
24 hrs access to facilities	upper	4.52	**4.46**	**Satisfied – very satisfied**
	lower	4.40		
Sufficient computer facilities in terms of both quality and quantity	upper	4.18	**4.10**	**Satisfied – very satisfied**
	lower	4.02		
Library resources (books, e-books, journals, e-journals) in terms of both quality and quantity	upper	4.70	**4.64**	**Satisfied – very satisfied**
	lower	4.59		
Security and confidence while staying in University or making transactions	upper	4.59	**4.53**	**Satisfied – very satisfied**
	lower	4.47		
All staff are consistently courteous with positive attitude	upper	4.16	**4.08**	**Satisfied – very satisfied**
	lower	4.00		
University supports future employability and progress	upper	3.56	**3.48**	**Neutral - Satisfied**
	lower	3.41		
Constructive and sufficient communication or feedback	upper	4.05	**3.97**	**Neutral - Satisfied**
	lower	3.89		
Teachers and staff are expert in their performed roles	upper	4.55	**4.49**	**Satisfied – very satisfied**
	lower	4.42		
Confidentiality of information	upper	4.61	**4.55**	**Satisfied – very satisfied**
	lower	4.49		

This chart only represent the result summary from satisfaction based on mean. It is to be noted that highlighted four factors are the area where LJMU is performing unsatisfactory. Mean column shows the exact mean for sample size whereas, the upper limit and lower limit of the mean shows the range where the true mean lies for total population. However, in all the decisions taken above is commented based on 95% confidence interval, and the rest 5% is margin of error.

Hypothesis Tests

T-Test is conducted on "gender" and "scholarshiporbursaries" nominal questionsbecause nearly cent percent students are full-time and not disable. ANOVA tests are conducted for "facultyofstudies"and "typeofstudents"because rest of the nominal question answers do not differ much.

T-Test

H_0 = No difference between the means exists, >0.05
H_1 = a difference between the means exists, <0.05
Only the satisfaction measures which get significantly influenced based on nominal questions are listed below:

Factors	Nominal question	Sig	Mean value	Decision	Interpretation
Appropriate design and content of curriculum	Scholarship received	.003	Yes 3.92 / No 4.34	H_1	Students who aren't receiving scholarship are more satisfied with appropriate design and content of curriculum and the relationship is significant
Cafés and canteen facilities	Male/female	.000	Male 2.82 / Female 1.93	H_1	Females students are less satisfied than male students with canteen facilities and the relationship is significant
24hrs access to facilities	Scholarship received	.016	Yes 4.28 / No 4.47	H_1	Students who aren't receiving scholarship are more satisfied with 24 hours access to facilities and the relationship is significant
Library resources (books, e-books, journals, e-journals) in terms of both quality and quantity	Scholarship received	.001	Yes 4.42 / No 4.65	H_1	Students who aren't receiving scholarship are more satisfied with library resources and the relationship is significant

In all the decisions taken above is commented based on 95% confidence interval, and the rest 5% is margin of error.

ANOVA Test

H_0 = No difference between the means exists, >0.05
H_1 = At least one of the means is different, <0.05
ANOVA table for "type of student"
Only the satisfaction measures which get significantly influenced based on nominal question ("Type of Study") are charted below:

Tested Factors	Significance	Decision	Interpretation
Responsiveness and accessibility of academic staff (teachers)	.000	H1	Satisfaction level of international students are substantially lower than both EU and UK students based on the mean value and the relationship is significant.
Responsiveness and accessibility of admin staff	.000	H1	Satisfaction level of international students are substantially lower than both EU and UK students based on the mean value and the relationship is significant.
Career information and guidance	.001	H1	Satisfaction level of international students are slightly lower than both EU and UK students based on the mean value and the relationship is significant.
Appropriate design and content of curriculum	.006	H1	Satisfaction level of international students are slightly lower than EU and significantly lower than UK students based on the mean value and the relationship is significant.
Appropriate delivery of modules	.000	H1	Satisfaction level of international students are substantially lower than both EU and UK students based on the mean value and the relationship is significant.
Fairness in grading assessments	.000	H1	Satisfaction level of international students are substantially lower than both EU and UK students based on the mean value and the relationship is significant.
24hrs access to facilities	.000	H1	Satisfaction level of international students are slightly lower than both EU and UK students.

Sufficient computer facilities in terms of both quality and quantity	.007	H1	Satisfaction level of international students are substantially lower than both EU and UK students based on the mean value and the relationship is significant.
Library resources (books, e-books, journals, e-journals) in terms of both quality and quantity	.007	H1	Satisfaction level of UK students are significantly higher than both international and EU students based on the mean value and the relationship is significant
Security and confidence while staying in University or making transactions	.000	H1	Satisfaction level of international students are slightly lower than EU and significantly lower than UK students based on the mean value and the relationship is significant.
All staff are consistently courteous with positive attitude	.000	H1	Satisfaction level of international students are substantially lower than both EU and UK students based on the mean value and the relationship is significant.
Constructive and sufficient communication or feedback	.000	H1	Satisfaction level of international students are substantially lower than both EU and UK students based on the mean value and the relationship is significant.
Teachers and staff are expert in their performed roles	.000	H1	Satisfaction level of international students are slightly lower than EU and significantly lower than UK students based on the mean value and the relationship is significant.
Confidentiality of information	.001	H1	Satisfaction level of EU students are slightly lower than international and significantly lower than UK students based on the mean value and the relationship is significant.

ANOVA table for "Faculty of Study"

Only the satisfaction measures which get significantly influenced based on nominal question ("Faculty of Study") are listed below:

Tested Factors	Significance	Decision	Interpretation
Responsiveness and accessibility of academic staff (teachers)	.046	H1	The mean difference is not significant, however, at least of the means is different
Responsiveness and accessibility of admin staff	.049	H1	The mean difference is not significant, however, at least of the means is different
Career information and guidance	.000	H1	Satisfaction level of Science, and Technology and Environment are substantially higher than other two based on the mean value and the relationship is significant
Appropriate delivery of modules	.028	H1	The mean difference is not significant, however, at least of the means is different
Cafés and canteen facilities	.003	H1	The mean difference is not significant, however, at least of the means is different
Fairness in grading assessments	.002	H1	Satisfaction level of Science, and Technology and Environment are substantially higher than other two
Library resources (books, e-books, journals, e-journals) in terms of both quality and quantity	.027	H1	The mean difference is not significant, however, at least of the means is different
All staff are consistently courteous with positive attitude	.013	H1	The mean difference is not significant, however, at least of the means is different
University supports future employability and progress	.000	H1	Satisfaction level of Science, and Technology and Environment are substantially higher than other two
Constructive and sufficient communication or feedback	.016	H1	The mean difference is not significant, however, at least of the means is different
Teachers and staff are expert in their performed roles	.018	H1	The mean difference is not significant, however, at least of the means is different

Multiple Regression Analysis (step-wise)

Four models are developed from multiple regression based on satisfaction factors which need to be improved to increase overall level of students' satisfaction:

H_0 = no good regression, (>0.05)
H_1 = there is good regression, (<0.05)

Model for	Factors include	Adjusted R2	Sig. value	decision
Career information and guidance	a. University supports future employability and progress b. Fairness in grading	.547	.000	H_1 accepted, there is a good regression and its 54.7% explanatory

Factors		Value 1	Value 2	Result
	assessment c. Appropriate design and content of curriculum d. 24hrs access to facilities e. Cafes and canteen facilities			
Cafes and canteen facilities	a. Career information and guidance b. Sufficient computer facilities in terms of both quality and quantity c. Teachers and staff are expert in their performed role d. Constructive and sufficient communication and feedback	.129	.000	H_1 accepted, there is a good regression and its 12.9% explanatory
University supports for future employability and progress	a. Career information and guidance b. Constructive and sufficient communication or feedback	.519	.000	H_1 accepted, there is a good regression and its 51.9% explanatory
Constructive and sufficient communication or feedback	a. All staff are consistently courteous with positive attitude b. Fairness in grading assessment c. Sufficient computer facilities in terms of both quality and quantity d. Responsiveness and accessibility of admin staff e. Teachers and staff are expert in their performed roles f. Appropriate delivery of modules g. Cafes and canteen facilities h. 24hrs access to facilities	.512	.000	H_1 accepted, there is a good regression and its 51.2% explanatory

Therefore, it is possible to explain that there is correlation and good regression exists with sufficiently explanatory percentage among these factors.

Factor Analysis

Factor analysis is conducted with varimax rotation, and KMO and Bartlett's test (strong correlation exists amongst all the factors, sig. value .000) to make cluster of measures for precise decision-making. Factors with loading of more than .50 is considered and less are excluded statistically.
From the factor analysis, three components or factors are found.

Factor 1 – this cluster contains six factors where majority of them are measuring interaction and physical quality of the institution. They are accountable for the largest portion of variance, which is 40.52%, with an Eigenvalue of 4.862. These are essentially important for the institution to focus on so that overall satisfaction increases.

Factor 2 – this cluster contains four factors and mostly all of them are resource based. They are accountable for the second largest portion of variance, which is 12.62% with an Eigenvalue of 1.515.

Factor 3 – this cluster contains only two factors and both of them are regarding career facilities. This cluster is accountable for 8.68% of variance with an Eigenvalue of 1.043. Below here mentioned the summary chart of factor analysis.

Factors	Component		
	1	2	3
Constructive and sufficient communication or feedback	.701		
Sufficient computer facilities in terms of both quality and quantity	.676		
Appropriate delivery of modules	.676		
Responsiveness and accessibility of admin staff	.659		
Cafés and canteen facilities	.616		

All staff are consistently courteous with positive attitude	.593		
Teachers and staff are expert in their performed roles		.710	
24hrs access to facilities		.703	
Appropriate design and content of curriculum		.701	
Fairness in grading assessments		.524	
Career information and guidance			.900
University supports future employability and progress			.893

Combining all the findings, which are Mean analysis, T-test, ANOVA, multiple regression (step-wise), and factor analysis, below drawn model can be found:
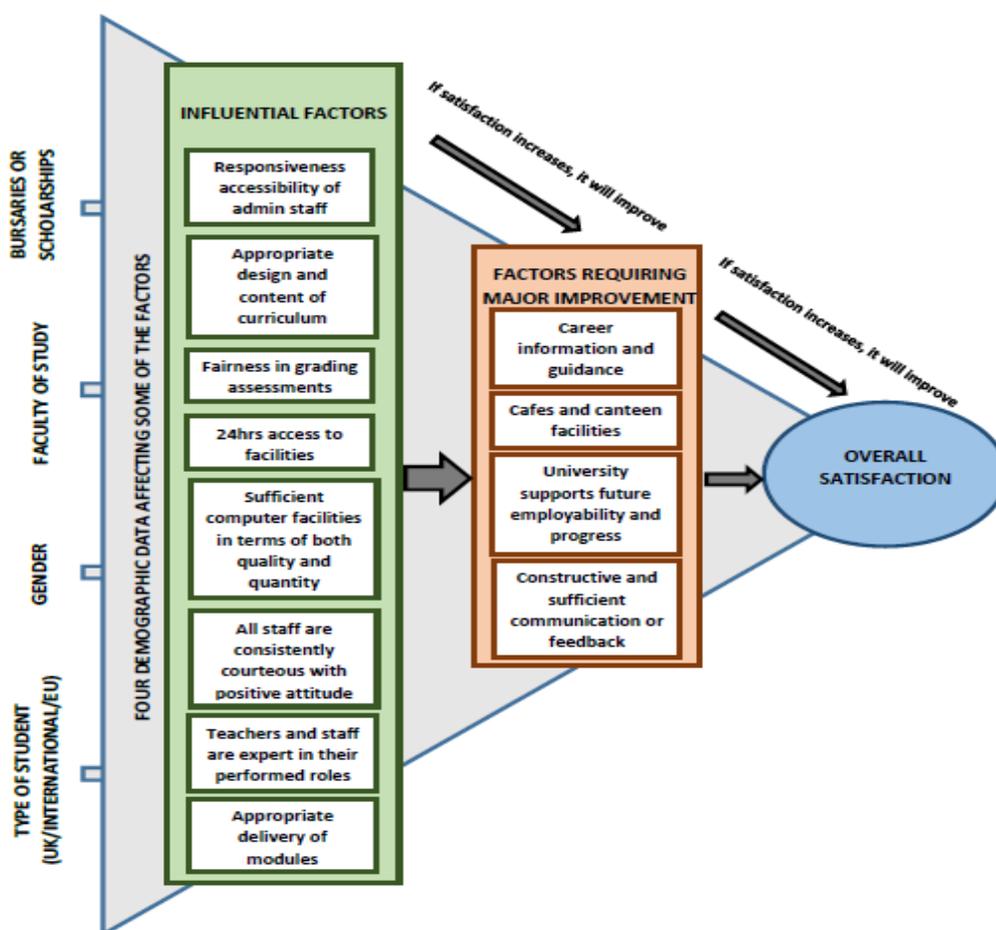
V. Discussion

Factor 1 - Interaction or Communication Based Satisfaction on Quality

Findings from this research agree with the general concept that, correlation among the communication factors are substantial and positively related with each other. From the study, it is observed that three major areas that can improve the satisfaction level of students are constructive and sufficient feedback, appropriate delivery of modules, and the consistency in service of staff with positive attitude and courtesy. However, there could be a different aspect of considering this dimension too. The impact of demographic profiling data has great impact over this criterion of satisfaction. From the study it is observed that in all three considered measures under this dimension, satisfaction of international students significantly lower than the satisfaction of either UK or EU country students. Notwithstanding, gender or receiving scholarship have no impact over this dimension. Interestingly, from the previous literature, it is evident that students coming from other ethnic background such as Asian, African, Middle East countries are more dissatisfied with interaction and communication from teachers and staff (Stigler &Hiebert, 2009). One study took place in University of Bergen where perceived discrimination, cultural shock, lack of friends etc. reduced the satisfaction level of African students significantly (Sam D.L., 2001). It is understandable that, students from different country have different learning style due to their segregation of culture, norms, and traditional practices. While conducting this research, more than one third of the participants are international students, thus, affecting the satisfaction value extensively. The reason might not be poor service performance in this criterion by institution where study took

place, rather the reason might be that cultural factors varies among different societies and sometimes teachers might ignore the most important factors of other cultures by taking it for granted and create a dispute (Stigler, et al., 2000). Therefore, it is very important for teachers too to understand how students learn, how the interaction in between them should take place.

While considering the appropriate delivery of module, from the previous research it is evident that international students do face problem with language barrier (Wei, 2007). This author also mentioned that language is not only the problem for students, rather, it can a problem of delivery for international teachers too when they face difficulties while providing or conducting a lecture (Wei, 2007). Delivery of module also raises the concern of teaching method. It needs to be considered that in UK teaching method is student centric whereas, most of the Asian students prefer teacher centric approach (Dimmock& Walker, 2000). It is also found that students who are UK based, locals, are more interested to learn real life skill, thus, prefers activity based learning, which certainly supports this study findings (Howarth, 2003). Appropriate delivery of the module can, therefore, be affected by this. The difference in culture among the international students with their perception, goal, and requirements are still needing focus and attention for research.

Factor 2 - Resource Based Satisfaction on Quality

In this study, improving students overall satisfaction depends on five service quality dimensions that are considered resource based namely, sufficient computer facilities in terms of both quality and quantity, cafes and canteen facilities, 24hrs access to facilities, teachers and staff are expert in their performed roles, and appropriate design and content of curriculum. Cafes and canteen facilities is the dimension where level of satisfaction found to be lowest among all the dimensions. Interestingly, after conducing all possible hypothesis tests with this dimension, no single profile of student marked cafes and canteen facilities to be satisfied. Regardless of any profiling data, in every occasion it was marked really poor by all students. However, female students are observed to be more dissatisfied with this dimension than male students. A study conducted in Gulf region also suggests that, gender has impact over the facilities like canteen or cafes, which supports the findings of this study (Parahoo, et al., 2013). In any case, according to the results, LJMU should focus on improving canteen facilities.

Another study suggests that, international students (especially Asian students) perceive UK education institution to be extremely resourceful regardless of the actual scenario. Whereas, local students or students from nearby EU countries have precise knowledge about the availability of resources (Firdaus, 2005b). The study conducted in LJMU also suggesting the same result, where the gap of expected quality of service and delivered quality of service is larger than that of UK or EU students. Therefore, due to the intense expectation of international students, the level of satisfaction deteriorates. However, from the literature it is evident that, students' perceived access to facilities provided by the institution is considered largely influential over the determination of satisfaction upon service quality (Firdaus, 2004).

Factor 3 - Career Based Satisfaction on Quality

Students were surveyed based on two career dimensions namely, 'career information and guidance', and 'university supports future employability and progress' in neutral to dissatisfied segment. As both of them are focused only on career services and came lower in satisfaction, thus, giving importance to be considered by the institution. Interestingly, while considering the demographic data students from both Arts, Professional and Social studies, and Education, Health and Community faculties rated substantially lower level of satisfaction than that of the students of both Science, and Technology and Environment departments. Besides, students who are receiving scholarship found to be less satisfied with the career facilities than that of students who are not receiving any bursaries or funding. Other than these two no other demographic data could profile or segregate this particular career dimension.

The findings of this study completely contradict with previous literature while considering future employability support and progress by the institution. According to (Vernick, et al., 2000), students are more concern with career information and guidance while they are studying in university or within their study tenure than that of their after graduation period. They have also mentioned that, students prefer to look for career progress by themselves doing company research, rather than getting support from randomly appointed university staff as they find it less reliable. Whereas in this study, a very strong and positive correlation is found in between the guidance and information students receives during their study period with the after graduation future employability and progress. This finding of correlation supported to some extent by (Peacock &Ladkin, 2002), where they mentioned about positive correlation of before and after study period of students expectation regarding employability support from university. However, as both of the dimensions are very much related and found to be lower in satisfaction along with the emphasis provided in study conducted in China (Li & Li, 2013), it certainly generates sufficient reason to focus upon this career dimension of service quality for overall improvement of satisfaction by education provider.

VI. Conclusion

In accordance with the objectives, this research firstly, measures the level of satisfaction based on service quality in Liverpool John Moores University so that university can make possible changes in regards to the findings. Secondly, constructs a model so that university can take systematic (step-by-step) approach to identify where the problem located, and how it can be properly dealt with. On the other hand as secondary contribution, this research pointed out how different demographic data or profile of students affect different dimensions of satisfaction measure such as, lower level of overall satisfaction by international students, gender preferences on canteen facilities, departmental variation upon career facilities, and most importantly how cultural, lingual, and social values significantly influence the factors of satisfaction over delivery of modules, student-staff interaction, behavioral dimensions, teaching methods etc. Furthermore, the model developed for particular institution, LJMU, can also be applied to any other educational institution, operated in similar circumstances, for their overall improvement of satisfaction by looking at which factors influence each other and how cluster-wise improvement is possible.

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