Expectations and Perceptions of Overseas Students towards Service Quality of Higher Education Institutions in Scotland

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Abstract

The study uses the SERVQUAL construct to measure the expectations and perceptions of overseas students towards service quality of higher education institutions in Scotland. Structured questionnaire was distributed to 200 postgraduate and undergraduate overseas students from China and Taiwan studying at Glasgow, Strathclyde, Stirling, West of Scotland (UWS) and Glasgow Caledonian Universities. A set of 129 completed and usable questionnaires was used in the analysis and a number of advanced statistical techniques were employed. The findings revealed a perceptual gap between students' expectations and their actual experience of the education services delivered to them by higher education institutions in Scotland. Detailed findings and managerial implications are discussed.

Keywords: service quality, higher education, customer expectations, customer satisfaction

1. Introduction

Quality of service has received greater attention from marketing academics and practitioners in the past few decades. Academics, in particular, were very much interested in the measurement of service quality (e.g., Bitner 1990; Cronin & Taylor 1992; Parasuraman, Zeithaml & Berry 1985, 1988, 1994). The research studies by Parasuraman et al., (1985, 1988) have suggested five dimensions of service quality (i.e., reliability, responsiveness, assurance, tangibles and empathy), which have been widely used in later years in measuring the quality of service in many industries. Utilising these five dimensions, industry managers have made several attempts to use the SERVQUAL instrument in measuring customer perceptions of service quality and identifying the perceptual gap between service provider and service recipients. The relative importance of each dimension of the SERVQUAL construct is subjective and relativistic because it is based on customers' values and beliefs that might change from one individual to another and from one culture to another (Furrer, Liu, & Sudharshan, 2000). Some of the determinants of customer expectations of services quality as identified by Zeithmal, Berry and Parasuraman (1993) are customer's personal needs: physical, social and psychological. These dimensions are strongly influenced by the social and culture of customers. Thus culture has an important influence on customer's expectations and perceptions of service quality.

We, therefore, study the expectations and perceptions of overseas students towards the quality of education services. The present study contributes to our understanding of what overseas students expect to receive when they pay for a degree abroad and how to improve the quality of educational service to satisfy their requirements and improve their overall perceptions.

The study has three key objectives. Firstly we measure the *expectations* of overseas students towards the service quality of Scottish higher education. Second to measure their actual experience (*perceptions*) of service quality they received from the higher education institutions in Scotland. We then use the confirmation/disconfirmation model to find out if there is a significant *gap* between expectations and perceptions of overseas students about the quality of education services delivered to them.

2. Literature Review

Perceived quality, whether in reference to a product or service, has been defined by Arnould, Price, Zinkhan

(2002) as "the consumer's evaluative judgment about an entity's overall excellence or superiority in providing desired benefit" (p742). Coulthard (2004) defined perceived quality as "the consumers' judgment about an entity's overall excellence or superiority, which can be viewed as distinct from objective quality in as much as it is a form of attitude, related in part to satisfaction, and resulting from a comparison of expectations with perceptions of performance" (p480).

Research by Lehtinen and Lehtinen (1982) and Parasuraman, Zeithaml and Berry (1985) note that the quality of service, as perceived by the consumers, originates from a comparison of what consumers believe about company's offerings (i.e. their perceptions) and their expectations of what the companies ought to offer. Parasuraman et al. (1985) created the SERVQUAL construct as a multiple-item scale for measuring customers' perceptions of service quality. In their subsequent paper (1988) they reduced the original 10-dimension construct to five dimensions model to include tangibility, reliability, responsiveness, assurance and empathy. They designed an instrument of 22 items to measure consumer's expectations and perceptions of the five dimensions, where each dimension was represented by four or five statements.

2.1 SERVQUAL Application in Higher Education Sector

Seymour (1992) used the SERVQUAL model to measure service quality of US education institutions from student perspectives. Similarly, Ruby (1996) employed the five dimensions of SERVQUAL to examine students' satisfaction in the USA. Tomkovick, Alkhatib, Baradwaj and Jones (1996) have implemented the model to assess quality of service quality as perceived by non-USA students attending USA business schools. Away from USA, Soutar, McNeil and Lim (1996) examined foreign students' perceptions of service quality delivered by a number of Australian educational institutions. Scoutar and McNeil (1996) conducted another study in Australia to measure service quality from two different perspectives of teaching and administration employees. Suba (1997) conducted a survey into elementary schools to assess expectation and satisfaction factors with the quality of education service provided to students. The construct of Suba (1997), while used Parasuraman et al. (1985) SERVQUAL model, it was revised to include dimensions such as physical attributes, importance of personal demand, teaching, community participation and learning outcome. Kerlin (2000) used a revised version of the model to measure the quality of service process of student educational support systems at the Everett Community College in Washington (USA).

In comparison to the USA, there seems to be a limited number of studies that has been undertaken in the UK to measure service quality of higher education institutions. For example, Hill (1997) developed a longitudinal study in the 1990s targeting accounting undergraduates at a provincial British university, and found that some service dimensions were crucial to the successful completion for many students. Aldridge and Rowley (1998) conducted a study to examine students' satisfaction of the educational services delivered at the University of Central England. Focus group methodology was used to inform the design of a questionnaire to measure undergraduate student's perceptions. Students' expectations were not examined in this study. In a study by Cuthbert (1996) it was suggested that the various elements of service quality should be revised by course directors to develop a specific construct for higher education. A modified version of the SERVQUAL model was tested on a sample of students at Manchester Metropolitan University and the result showed that the mean of perceptions of each dimension surpasses that of expectations except for tangibles.

2.2 Service Performance and Criticism against SERVQUAL

Churchill, Brown and Peter (1993) argue against the validity of SERVQUAL claiming that the construct is only supported by little empirical/theoretical evidence and that the scale failed to gain discriminant validity from its components. In addition, Cronin and Taylor (1992) believe that the SERVPERF, an un-weighted performance-based scale, can provide better results when measuring service quality compared to SERVQUAL. Although the debate between supporters of SERVQUAL and SERVPERF has lasted for a long period of time, the SERVQUAL is still the most practical model for measuring service quality (Cuthbert, 1996; Buttle, 1995). However, it should be noted that the use of SERVQUAL construct in measuring service quality of education seemed to employ the model in measuring single phenomenon; either students expectations or satisfaction, but not the two. The measurement of both to identify the perceptual gap from the students' view seems to have received little attention in service marketing research.

3. Methodology

3.1 Scale Measurement

The questionnaire of the present study was developed based on Parasuraman et al. (1994) SERVQUAL five dimensions model, and was divided into three sections. While section one was designed to measure overseas

students' *expectations* of Scottish higher education services, section two was to measure students' *perceptions* of the services delivered to them. Finally section three aimed at collecting some personal information from respondents. We used Hoffman and Bateson's (1997) questionnaire template of service quality measurement to operationalise our service quality variables with some adjustment to make it applicable to higher education service. We measured students' expectations and perceptions in this study using 22-items for each measurement where respondents were asked to circle the category that best matched their opinion (Centeno, Harker, Ibrahim & Wang, 2008). Similar to Hill (1997) in using the 'perceived importance' as an indicator of expectations, we used the 5-point Likert scale of 'very important – very unimportant' to measure expectations.

3.2 Sample

According to the Scottish Higher Education Funding Council (SHEFC), around 15% of higher education students in Scotland are from countries outside the UK (*Baseline report, International students and links, 2005*). The report revealed that China has the third largest population of overseas students studying in Scotland. It was reported that the number of Chinese students in the UK has almost doubled in the past decade. It was also revealed that the number of Taiwanese students coming to study in Scotland has risen dramatically in past years to contribute some to the Scottish economy. Based on the above, we choose to conduct our survey with a sample from overseas Chinese and Taiwanese students studying in the Scottish Universities. The sample size for this research was calculated using Malhotra's (2004) formula:

$$n = \frac{\pi(1-\pi)z^2}{D^2}$$

The calculation of the above formula, with 95% confidence level, revealed that the required sample size for this research was 200.0754. Therefore, 200 questionnaires were distributed to overseas Chinese and Taiwanese students attending Strathclyde, Glasgow, Stirling, Glasgow Caledonian and UWS universities. We could not access the official list of overseas students in Registry offices at the five universities because of data protection laws. We were only able to obtain the total number of overseas students at each university, therefore we implemented proportional stratified sampling procedure (Kumar, Aaker & Day, 2002). Since the sample size identified in this research was 200 respondents, a 13.661% directly proportional stratified sample size was employed. A set of 129 completed and usable questionnaires were used. The detailed sample groups and sub-group are illustrated in Table 1.

The questionnaire was pre-tested with a group of 10 Chinese and Taiwanese students who commented positively on most of the questions, but suggested minor changes to few questions (e.g., Q.13, 20 and 22). Their comments were taken into account and the questionnaire was refined in terms of wording, layout and style before launching the survey. *Snowballing* was our method of data collection from the few contacts we have at the chosen universities.

A number of statistical techniques were used in the analysis to: (a) measure the reliability of the scale-items, (b) examine students' expectations, perceptions and SERVAUAL gap, and (c) test the study hypothesis. We defined the null (*H0*) and alternate (*H1*) hypothesis as follows:

"NO significant difference between the mean scores for overseas students' expectations and perceptions of service quality of specific items".

"There is significant difference between the mean score for overseas students' expectations and perceptions of service quality of specific items".

4. Findings and Discussion

The objectives of this study were to measure overseas students' expectations and perceptions towards the service quality of Scottish higher education institutions and to gain further insight into the overall service quality using the SERVQUAL confirmation/disconfirmation model. Our sample comprised of 45 students from Strathclyde, 31 from Glasgow, 27 from Sterling, 14 from UWS and 12 from Glasgow Caledonian Universities. Table 1 below provides a brief descriptive analysis of the demographic characteristics of the sample.

Table 1. Descriptive analysis of the sample

Characteristics			Number	Percentage (%)
Institute	Group size	13.661% proportional stratified sample size		
Strathclyde	327	44.67 (45)	45	34.9
Glasgow	527	71.99 (72)	31	24.0
Stirling	251	34.28 (34)	27	20.9
West of Scotland (UWS)	276	37.7 (38)	14	10.9
Glasgow Caledonian	83	11.33 (11)	12	9.3
Total	**1464**	**199.97 (200)**	**129**	**100%**
Gender				
Male			45	34.8
Female			84	65.1
Nationality				
China			51	39.5
Taiwan			78	60.4
Degree				
Postgraduate			122	94.5
Undergraduate			7	5.42
Range of age				
Under 18			0	0
18-21			6	4.65
22-25			51	39.5
26-29			43	33.3
30-33			23	17.8
34 and above			6	4.65
Subjects				
Accountancy & Finance			8	6.2
Aeronautical & Manufacturing Engineering			1	0.77
Art & Design			1	0.77
Business Studies			69	53.4
Chemistry			1	0.77
Communication & Media			3	2.32
Computer Science			3	2.32
Economics			4	3.1
Education			2	1.55
Electrical Engineering			2	1.55
Hotel and Hospitality			7	5.42
Linguistics			2	1.55
Medicine (and other Medicine related subjects)			6	4.65
Politics			1	0.77
Psychology			2	1.55
Pharmacology			0	0
Others			17	13.1

4.1 Reliability Analysis

Reliability analysis measures the degree to which scale-items are reliable to generate consistent results (Kumar, 2002; Zikmund, 1997). We used Alpha Cronbach (**α)**, which examines the extent to which a set of items can be trusted in measuring a single latent variable (Guilford, 1978). The reliability test for the "expectations" 22-items indicated that the estimated '**α**' for four dimensions (i.e., tangibility, reliability, assurance and empathy) fall within the range of 0.7-0.9, while the estimated '**α**' of the responsiveness was at 0.66. On the other hand, the reliability test for the "perceptions" items indicated that the three dimensions of responsiveness, reliability and assurance have estimated '**α**' falling in the range 0.8181-0.814, while the '**α**' of tangibility and empathy dimensions were in the range of 0.60-0.70. The test revealed that the scale-items used in this research were reliable (see Table 2A & 2B).

Table 2A. Reliability analysis for expectation items

Dimension	Question No.	SERVQUAL measurement items	Cronbach α
Tangibility	1	Use of advanced and modern teaching and IT facilities	0.7131
	2	Appealing physical appearance of buildings and class rooms	
	3	Faculty and other staff are of professional character	
	4	Interesting and easy to understand learning materials	
Reliability	5	Fair and consistent assessment of students work	0.804
	6	Sincere intention in resolving students problems and concerns	
	7	Fulfilling students' requirements at the right time	
	8	Fulfilling previous commitments/promises to students	
	9	Promoting error-free records and documentations	
Responsiveness	10	Provision of accurate information re educational services e.g., timetable, meetings and events, assignment/exam result, etc.	0.6633
	11	Provision of prompt response/feedback to students	
	12	Willingness to provide academic assistance/help to students	
	13	Willingness to help students improving their personal and communications skills	
Assurance	14	Provision of professional skills required for good academic performance and for future employment	0.8248
	15	Money spent on the degree should reflect quality of education service offered	
	16	Wide provision of various support services to foreign students	
	17	Academics are knowledgeable on students subject of study	
Empathy	18	Staff understand the range of specific challenges facing foreign students	0.8361
	19	University opening hours are convenient and well publicized	
	20	Provision of emergency services to foreign students	
	21	Provision of tailored advice to foreign students upon arrival on matters inside and outside university life	
	22	Good understanding of foreign students' specific needs	

Table 2B. Reliability analysis for perception items

Dimension	Question No.	SERVQUAL measurement items	Cronbach α
Tangibility	1	My university has advanced and modern teaching and IT facilities	0.6461
	2	My university has appealing physical appearance of buildings and class rooms	
	3	Faculty and other staff at my university are of professional character	
	4	My university provides interesting and easy to understand learning materials	
Reliability	5	Academics provide fair and consistent assessment to students work	0.8181
	6	My university shows sincere intention in resolving students problems and concerns	
	7	My university fulfils students' requirements at the right time	
	8	My university fulfils its commitments/promises to students	
	9	My university promotes error-free records and documentations	
Responsiveness	10	My university provides accurate information re educational services e.g., timetable, meetings and events, assignment/exam result, etc	0.8073
	11	My university provides prompt response/feedback to students	
	12	Staff at my university are willing to provide academic assistance to students when needed	
	13	Staff at my university are willing to help students improving their personal and communications skills	
Assurance	14	Students are given the professional skills they require for good academic performance and for future employment	0.814
	15	I am confident that the money I spent on the degree worth the quality of education service offered	
	16	My university offers various support services to foreign students	
	17	Academics at my university are knowledgeable on students subject of study	
Empathy	18	Staff at my university understand the range of specific challenges facing foreign students	0.6036
	19	My university has convenient opening hours which are well publicized	
	20	My university provides emergency services to foreign students	
	21	My university gives tailored advice to foreign students upon arrival on matters inside and outside university life	
	22	Staff at my university understand the specific needs of foreign students	

We measured overseas students' expectations on a 5-point Likert scale where respondents have been asked to indicate the degree of importance of the 22 expectations statements. The mean scores were ranked from high to low as shown in Table 3. Overseas students perceived the following five items as highly important in shaping their expectations of service quality of higher education institutions:

- staff (academic and admin) must be willing to assist/help students (Responsiveness);

- university must be keen to resolve students' problems and concerns (Reliability);

- academics must be fair and consistent when assessing student material (Reliability);

- academics must be knowledgeable on students' subject of study (Assurance);

- tuition fee must reflect quality of all services in the institution (Assurance).

The above results were generally consistent with SHEFC's report where 58% of overseas students expect to be given personal help, learning support and guidance from academic and non-academic staff. This corresponds to the claim by Furrer, Liu, and Sudharshan (2000) that students from different cultures may have different views when evaluating the service offered to them. However when it comes to the reliability and responsibility of staff, all students seem to have same attitude towards them. The results of this study help the higher education institutions in Scotland to pay particular attention to those attributes perceived by students as of highest importance.

Table 3. Mean and rank of overseas students' expectations

Dimension	Question No.	SERVQUAL measurement items	Mean (Expectations)	Rank
Tangibility	1	Use of advanced and modern teaching and IT facilities	4.0155	8
	2	Appealing physical appearance of buildings and class rooms	3.4341	21
	3	Faculty and other staff are of professional character	2.9922	22
	4	Interesting and easy to understand learning materials	3.7209	18
Reliability	5	Fair and consistent assessment of students work	4.2093	3
	6	Sincere intention in resolving students problems and concerns	4.2248	2
	7	Fulfilling students' requirements at the right time	3.8527	16
	8	Fulfilling previous commitments/promises to students	3.9845	9
	9	Promoting error-free records and documentations	3.7442	17
Responsiveness	10	Provision of accurate information re educational services e.g., timetable, meetings and events, assignment/exam result, etc	3.6667	20
	11	Provision of prompt response/feedback to students	3.969	11
	12	Willingness to provide academic assistance/help to students	4.6124	1
	13	Willingness to help students improving their personal and communications skills	3.9457	13
Assurance	14	Provision of professional skills required for good academic performance and for future employment	3.9767	10
	15	Money spent on the degree should reflect quality of education service offered	4.2093	4
	16	Wide provision of various support services to foreign students	4.0543	7
	17	Academics are knowledgeable on students subject of study	4.1163	5
Empathy	18	Staff understand the range of specific challenges facing foreign students	3.9457	14
	19	University opening hours are convenient and well publicized	3.938	15
	20	Provision of emergency services to foreign students	4.0853	6
	21	Provision of tailored advice to foreign students upon arrival on matters inside and outside university life	3.969	12
	22	Good understanding of foreign students' specific needs	3.7054	19

We measured the perceptions of overseas students using 22-statements on a 5-point Likert scale where respondents have been asked to indicate the extent to which they agree/disagree with each statement. We ranked the mean scores of the 22-items from high to low and found the following 5 attributes to be perfectly performed by universities in Scotland as perceived by overseas students (see Table 4):

- university opening hours are convenient to students and well publicised (Empathy);

- academics at my university are of professional character (Tangibility);

- my university has advanced and modern facilities available for students' use (Tangibility);

- learning material in my university is interesting and easy to understand (Tangibility);

- my university provides a wide range of support services to students (Assurance).

These results are relatively similar to SHEFC's report, especially in regards to the importance of modern facilities, good learning material and professional manner of staff. These items were perceived by overseas students as the most important attributes reflecting the better education service performance offered by higher education universities in Scotland.

Table 4. Mean and ranking of overseas students' perceptions

Dimension	Question No.	SERVQUAL measurement items	Mean (Perceptions)	Rank
Tangibility	1	My university has advanced and modern teaching and IT facilities	3.6977	3
	2	My university has appealing physical appearance of buildings and class rooms	3.5659	7
	3	Faculty and other staff at my university are of professional character	3.7209	2
	4	My university provides interesting and easy to understand learning materials	3.6667	4
Reliability	5	Academics provide fair and consistent assessment to students work	3.5349	9
	6	My university shows sincere intention in resolving students problems and concerns	3.3721	14
	7	My university fulfils students' requirements at the right time	3.0698	22
	8	My university fulfils its commitments/promises to students	3.1705	20
	9	My university promotes error-free records and documentations	3.2171	18
Responsiveness	10	My university provides accurate information re educational services e.g., timetable, meetings and events, assignment/exam result, etc	3.5039	10
	11	My university provides prompt response/feedback to students	3.186	19
	12	Staff at my university are willing to provide academic assistance to students when needed	3.5659	8
	13	Staff at my university are willing to help students improving their personal and communications skills	3.2248	17
Assurance	14	Students are given the professional skills they require for good academic performance and for future employment	3.3023	15
	15	I am confident that the money I spent on the degree worth the quality of education service offered	3.1395	21
	16	My university offers various support services to foreign students	3.6434	5
	17	Academics at my university are knowledgeable on students subject of study	3.4961	11
Empathy	18	Staff at my university understand the range of specific challenges facing foreign students	3.4419	12
	19	My university has convenient opening hours which are well publicized	3.9612	1
	20	My university provides emergency services to foreign students	3.3798	13
	21	My university gives tailored advice to foreign students upon arrival on matters inside and outside university life	3.6124	6
	22	Staff at my university understand the specific needs of foreign students	3.2326	16

4.2 Perceptions – Expectation Gap

To find out if there is a *gap* between students' expectations and perceptions and whether the gap is positive/negative, we compared the mean scores of the 22 items of each of them applying an 'item-by-item' analysis. The results as shown in Table 5 were generally unsatisfactory. The mean score of each perception item was below the expectation mean score, except for three items 2, 3 and 19. Similar to Hill's study (1997), we found a clear gap between the mean scores of students' perception and expectation in relation to the prompt response and feedback' provided to students. This could imply that the Scottish Universities need to pay greater attention to improve staff's response/feedback to students.

Table 5. Service confirmation (Gap = P-E) by items

Dimension	Question No.	Mean (Perceptions)	Mean (Expectations)	SERVQUAL Confirmation (gap=P-E)	Rank	P value
Tangibility	1	3.6977	4.0155	-0.3178	17	0.013 *
	2	3.5659	3.4341	0.1318	21	0.239
	3	3.7209	2.9922	0.7287	22	0.000 ***
	4	3.6667	3.7209	-0.0542	19	0.627
Reliability	5	3.5349	4.2093	-0.6744	10	0.000 ***
	6	3.3721	4.2248	-0.8527	3	0.000 ***
	7	3.0698	3.8527	-0.7829	6	0.000 ***
	8	3.1705	3.9845	-0.8140	4	0.000 ***
	9	3.2171	3.7442	-0.5271	12	0.000 ***
Responsiveness	10	3.5039	3.6667	-0.1628	18	0.179
	11	3.186	3.969	-0.7830	5	0.000 ***
	12	3.5659	4.6124	-1.0465	2	0.014 **
	13	3.2248	3.9457	-0.7209	7	0.000 ***
Assurance	14	3.3023	3.9767	-0.6744	9	0.000 ***
	15	3.1395	4.2093	-1.0698	1	0.000 ***
	16	3.6434	4.0543	-0.4109	15	0.000 ***
	17	3.4961	4.1163	-0.6202	11	0.000 ***
Empathy	18	3.4419	3.9457	-0.5038	13	0.000 ***
	19	3.9612	3.938	0.0232	20	0.952
	20	3.3798	4.0853	-0.7055	8	0.000 ***
	21	3.6124	3.969	-0.3566	16	0.000 ***
	22	3.2326	3.7054	-0.4728	14	0.000 ***

Notes: Significant level = *p ≤ 0.05 ** p ≤ 0.01 *** p ≤ 0.001.

The paired-sample t-test was used to test the research hypothesis. The result above in Table 5 indicates that item 1 for tangibility dimension showed significant difference between overseas students' expectations and perceptions at p≤0.05, while item 3 for tangibility dimension, items 5–9 for reliability dimension, items 11 and 13 for responsiveness dimension, items 14–17 for assurance dimension and items 18, 20, 21 and 22 for empathy dimension were all significant at p≤0.001. Item 12 was the only one that is significant at p≤0.01. Therefore, we can conclude that there is significant difference between overseas students' expectations and perceptions of the higher education services offered to them by Scottish universities, thus we tend to accept the alternate hypothesis (*H1*) for all items, but item 2, 4, 10 and 19. For these four particular items the significance level being at p≤0.5 implies that *NO* significant difference between students' expectations and perceptions, thus we tend to accept the null hypothesis (*H0*) for these four items.

We applied the same procedure again but this time in a 'dimension-by-dimension' analysis to ascertain the *gap* between students' expectations and perceptions. We simply summed the mean scores of each dimension for both perceptions [P] and expectations [E] and divided by the total number of items related to a single dimension. We then compared them together applying the following simple equation [P1 + P2 + P3 + P4 ÷ 4 – E1 + E2 + E3 + E4 ÷ 4] to find out the overall quality of educational service delivered by Scottish universities (Centeno et al., 2008). The results shown in Table 6 were unsatisfactory because the mean scores of students' perceptions were lower than the mean scores of expectations for each dimension.

Table 6. Service confirmation (Gap = P-E) by dimensions

Dimension	Question No	Perceptions		Expectations		SERVQUAL Confirmation (Gap=P-E)	Rank
		Mean	Standard Deviation	Mean	Standard Deviation		
Tangibility	1-4	3.2268	0.8426	3.5407	0.9443	-0.3139	5
Reliability	5-9	3.2729	0.8703	4.0031	0.9491	-0.7302	1
Responsiveness	10-13	3.3702	0.9291	4.0484	1.4309	-0.6782	3
Assurance	14-17	3.3953	0.8866	4.0891	0.9823	-0.6938	2
Empathy	18-22	3.5256	1.094	3.9287	0.9327	-0.4031	4

As seen in Table 6 reliability has been perceived by overseas students as the worst service dimension [P–E = -0.7302], while tangibility dimension showed the least perceptual gap [P–E = -0.3139]. The results in Tables 6 and 5 showed that the overall quality for each service dimension still has not met overseas Chinese and Taiwanese students' expectations. This implies that higher education universities still fall short in achieving desirable service quality from overseas Chinese and Taiwanese students' perspective.

5. Conclusion and Implications

The findings revealed that there is a clear gap between overseas students' expectations and perceptions of educational services in Scottish universities. The areas that were perceived to be less satisfactory to students are; staff's willingness to help overseas students, staff's sincerity in resolving students' problems, and quality of feedback given by academics. Our results in this regard are generally similar to those of previous research and industry reports. We believe that the success of higher education service in Scotland might be dependent on the way that the Scottish universities will respond to the 'perception-expectation' gap that was expressed by overseas students. We also believe that the sustainability of the growth rate of overseas students attending Scottish universities requires some improvement in educational service quality and better understanding of cross-cultural differences.

Mead (2005) and Furrer et al. (2000) suggest that cultural diversity provides several opportunities and challenges, which if they are analysed carefully, many economic benefits can be gained. Therefore, Scottish HE institutions may have to think about the extent of standardization-customization of their services to satisfy the varying expectations of overseas versus home students. It is also essential for Scottish universities to realize that the higher education market is made up of both local and overseas students, and that satisfying their expectations will probably generate positive word-of-mouth communications.

One of the service gaps found in this study is the lack of prompt responses given by staff to students. Higher education institutions should therefore deploy their staff in an efficient manner, for which good service can be delivered. Looy, Dierdonck and Gemmel (1998) suggest that planning and scheduling of service staff should be integrated with the management of other resource and positioned within a framework of manpower planning.

Few limitations must be acknowledged in this study. Due to constraints of time and cost, only quantitative research was used. It is suggested that a more intensive and flexible qualitative research regime can be employed to further probe student' insights, and can also inform more specific content in quantitative research. This study investigated only overseas Chinese and Taiwanese students' expectations and perceptions. Future research should consider other nationalities of foreign students to gain broader understanding of overseas students' concerns/requirements. On-line learning is growing in prosperity, and the service quality for this type of education should also be investigated. This study was done in five universities in Scotland which might affect the generalisability of the results to other countries.

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