Anglia Ruskin University

Development of the Service Quality and Performance Model for Independent Colleges in the UK

Nadith K Kumarapperuma

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Abstract

The aim of the research is to identify, evaluate and develop service quality measures/dimensions – from the students' point of view – at independent Colleges in the UK. The primary objective of the study is to determine whether private higher education providers in the UK meet student expectations. In order to achieve the primary objective, the research identified two secondary objectives as: what are the areas of service quality that are most important to students, when choosing to study at a private college in the UK; and does their chosen private college meet student expectations in all these areas?

The research consists of three stages: 1) an extensive analysis of literature followed by discussions with industry experts to map recent developments within independent colleges in the UK, 2) an analysis of a student focus group discussions as well as an expert panel review, of the focus group findings, in order to develop the initial conceptual model and the development of the measurement instrument i.e., online questionnaire, and 3) the online questionnaire link was then promoted to qualifying participants internationally using the official website (www.service-quality.co.uk) as well as social media, such as Facebook, LinkedIn, and Twitter. In addition, links to the survey and the progress have been listed at several discussion groups as well as included in online press releases. The online questionnaire was made available from 1st June to 30th November 2013, to ensure sufficient time was given to promote the survey and attract a good number of responses.

12,775 completed questionnaires were gathered during the six months period. The sample data was analysed for the normality of distribution followed by assessment of validity and reliability, using parametric statistical analysis tools.

Finally, the research concluded that students chose to study at independent colleges as they offered five service quality dimensions as: flexible, market driven, assurance, customer focus and focus practitioners. The participants also agreed that their chosen independent college either met or exceeded their expectations. The research findings were inconclusive in terms of the order of importance of these service quality dimensions.

The service quality and performance model for independent colleges in the UK requires these three components: service quality dimensions, measures, and implementation points, to continuously refine and develop. Following such a model, the organisation will continuously identify and refine the service quality dimensions and measures to meet changing student expectations on a continuous basis, whilst sustaining positive service gaps, thriving to remove negative service gaps and by converting neutral areas to positive service gaps.

Key words

Service quality, independent colleges, flexible, market driven, assurance, customer focus, focus practitioners

Executive summary

The purpose of the research is to construct an empirical model to measure service quality performance of private colleges in the UK.

In order to achieve this purpose, this research initially conducted an extensive literature review as well as several interviews with industry experts to understand the current thinking as well as modern developments of independent colleges in the UK. Once the need for a development of a specific model was established, the researcher formed a student focus group and an expert panel to determine service quality dimensions and the respective measures associated with those dimensions.

At the end of the initial discussions, this study identified five service quality dimensions as key for students choosing to study at independent colleges in the UK. They are: flexible, market driven, assurance, customer focus and focus practitioners. In addition, the student also identified 22 measures to determine the performance of these dimensions. With five measures each for flexible and customer focus, and four measures each for market driven, assurance and focus practitioners.

With the aid of a pilot group as well as proof readers, the study then developed a measurement instrument i.e., an online questionnaire using a seven point Likert-type scale, to measure the perceived service quality delivered by students. The survey was developed using an online survey tool and promoted via stakeholders, internet search engines, a dedicated website as well as social media. Participants were encouraged to complete the survey between June and November 2013.

12,776 participants took part in the survey with an equal distribution of male and female respondents. The data was then analysed for normality of distribution using statistical and non-statistical tools, before testing the reliability and validity of the measurement instrument. A comparison of data with other studies conducted throughout the analysis to ensure comparability between studies.

Once the validity and reliability was established, the study then suggested an interlinked service quality model, using five dimensions and incorporating 22 measures. In addition, three implementation points were established to ensure the findings of the measurement is actioned within organisations.

Finally, in order to improve the responsiveness of the model, the three aspects i.e., service quality dimensions, 22 measurements and implementation points, were linked together on a continuous loop, which will enable organisations to refine and adjust service quality dimensions and measures to meet changing customer expectations.

The study concluded by providing an implementation suggestion, where the regular participation of students was encouraged via easy access touch screen surveys, where the management of the institution can monitor student feedback and comments via an easy access information board.

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- Members of the expert panel, for their kind comments, suggestions and advice;

- Pilot study group for their time in completing several sample questionnaires and providing comments for improvements on a regular basis;

- Proof readers for their patience and commitment throughout the development stage of the questionnaire;

- 12,775 participants that took time to complete the online questionnaire;

In addition the researcher would like to thank his family for their kindness and patience, during a challenging few years.

The researcher - 2014

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Abbreviations

HESA	Higher Education Statics Agency
UKVI	UK Visas and Immigration Services
QAA	Quality Assurance Agency
ISI	Independent Schools Inspectorate
BAC	British Accreditation Council
ASIC	Accreditation Service for International Schools, Colleges and Universities
REO	Review of Educational Oversight
BIS	Department of Business Innovation and Skills
HCFCE	Higher Education Funding Council for England
DES	Department for Education and Science
UKCISA	UK Council of International Student Affairs
PMI	Prime Minister's Initiative
DFES	Department of Education and Skills
HEI	Higher Education Institution
RB	Recognised Body
UCAS	Universities and Colleges Admissions Service
SELT	Secure English language test
GMAT	Graduate Management Admissions Test
CFA	Confirmatory Factor Analysis
SEM	Structural Equation Modelling

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Context and the purpose of the research

Chapter 1

Introduction and the context of the research

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Introduction to Section 1: Context and the purpose of the research

As seen in the thesis structural diagram on the previous page, the first four chapters of this report form the first section, i.e., Context and the purpose of the research.

The aim of the section is to:

- To understand the aims and objectives of this research and how this study fits within the broader debates of quality, service quality and quality management;
- To critically understand the recent developments of private colleges in the UK and an assessment of the current market conditions, and possible future developments;
- To critically understand the meaning of quality and service quality and how these terms have been developed during the last few decades and key assumptions and arguments in the area;
- To critically examine the service quality models commonly used in the assessment of quality of education and their respective features.

Chapters two, three and four also form a part of the exploratory study in to this area and support section two of the thesis, in determining the methodology.

1.0 Chapter Introduction

In this introductory chapter, the background to the research area will be provided by firstly understanding the nature and scope of private higher educational providers in the UK. Several key studies conducted by governmental departments such as the Higher Education Statistics Agency, UK Visas And Immigration Services and the Department Of Business Innovation And Skills, have been discussed, in order to understand the context of this research.

This chapter will also identify the reasons for researching into this area; the purpose, aim and objectives of the research will also be described. Further, the primary and secondary research questions will be developed and discussed along with the scope of the research, limitations and challenges.

A section of this chapter is also dedicated to look at the structure of this dissertation and how different chapters link together to provide the overall findings of the study.

1.1 Context of the Study

The Higher Education Statistic Agency's (HESA) report on private and for-profit providers of Higher Education in the UK 2009/10, identified over 56,000 students studying in privately owned higher educational institutions in the UK, and this number grew to over 160,000 in 2011/12 (HESA, 2011).

Private providers of education play a vital role in the market and offer qualifications in a wide variety of sectors and study modes (BAC, 2011). HESA's report further claims that qualifications ranging from Level 3 Foundation Diplomas to Postgraduate qualifications are offered via a variety of study modes, including full time face to face study, part time evening, part time weekend, block release as well as online (HESA, 2011).

According to Simon Cleaver, the Chairman of StudyUK – a membership organisation of Private Educational Providers – the demand for private educational providers has been fuelled by the increase in tuition fees. Private providers have created a real alternative to going to a University or a state funded Higher Educational College to many students. Simon Cleaver further stated that private providers are more market and customer driven, therefore likely to set course fees in line with market needs and demand, rather than regulatory prices (Study UK, 2012).

However, the study carried out by the UK Visas and Immigration Services (UKVI) in 2010 – formerly known as UK Border Agency - tracked the outcomes of 17,000 overseas students, of which just over 3,000 were at privately funded institutions. The study further highlighted that the rate of compliance was significantly poorer for students at private institutions, as opposed to public institutions, in meeting the immigration standards; more specifically English language proficiency, attendance and attainment of qualifications (UKVI, 2010).

This study resulted in UK Visas and Immigration Services introducing mandatory Educational Oversight requirements for Private Colleges - by the Quality Assurance Agency (QAA) and Independent Schools Inspectorate (ISI) - which are intending to attract overseas students requiring a student visa to study in the UK. This scheme replaced the previous accreditation schemes provided by the British Accreditation Council (BAC) and Accreditation Service for International Schools, Colleges and Universities (ASIC).

QAA and ISI commenced their respective Review of the Educational Oversight (REO) process early 2011, with the QAA inspecting private providers with a majority of Higher Educational Students, and ISI inspecting private providers with a majority of further educational students and English language Colleges.

As of March 2014, the QAA has conducted 202 full reviews and 119 annual reviews, of which 85% of the providers are achieving the required grades to meet the standards. In addition, ISI completed and approved 381 providers since October 2011. This brings the total of private providers that have gone through the process of meeting the immigration requirements to over 500 providers in the UK. However, it is worth noting that the QAA and ISI provision only covers private providers that appeal to overseas students requiring a student visa to study in the UK and the research conducted by the Department of Business Innovation and Skills (BIS) in June 2013, estimated a figure of 674 private colleges operating in the UK. Further, the BIS also identified 27 providers, with multiple study campuses totalling 89 additional campuses or colleges (BIS, 2013).

Of the 160,000 Higher Educational learners studying at private institutions during 2011/12, approximately 60% were studying full time, with 21% part time and 18% via distance learning. This shows that students see private providers as a good alternative to state funded educational establishments, as they not only attract students who would like to follow qualifications on a part time basis, but also the majority of students studying on a full time basis. The BIS's report further identified nearly 60% of the learners were domiciled within the UK and EU, meaning only 40% of students are from non-EU countries (BIS, 2013). However, it is worth noting that over 60% of students that are studying qualifications in business and administrative qualifications opted to study as either part time or distance learning, whereas nearly 90% of students that have chosen to study subject areas such as arts, medicine and law, chose to do so as full time students.

Interestingly, nearly 65% of private providers identified themselves as 'specialist' providers, meaning they simply focus on one subject area, with over 30% of the providers specialising in the areas of business, management, accountancy or Information Technology, and less than 5% of providers focussing in areas such as science, technology, engineering or aviation. The average number of qualifications offered by private providers was limited to four qualifications, meaning the focus is in developing a robust commercial model by offering few qualifications to attract a relatively large number of students, in order to make the operations worthwhile (BIS, 2013). Accordingly to Middlehurst and Fielden (2011), most private providers focus in the area of business, law, computing, hospitality and tourism during their start up and development stages, as is the case in the UK private education sector, and usually branch out into areas such as social sciences and healthcare at later stages of their development.

In terms of qualification level, over 50% of providers claimed to offer qualifications at Postgraduate Level focusing on qualifications that are in high demand within the business management sector, such as Masters in Business Administration, Chartered qualifications in accountancy, marketing and so on (BIS, 2013).

London has over 50% of private establishments with a further 20% located in the south east of England, in close proximity to key business and financial areas of the country.

In addition, nearly 55% of all private providers identified themselves as for-profit organisations and 39% as not-for-profit. Profit making sectors also identified their subject specialisms as business, management and Information Technology, highlighting the commercial nature of private providers. Those providers that identified themselves as not-for-profits were dominated by religious and arts colleges. This is however significantly different in the USA, where the private educational sector has been in existence for a considerably longer period of time, according to Middlehurst and Fielden (2011), 1127 out of 1905 of total private institutions in the USA in 2005 declared themselves as not-for-profit.

BIS (2013) also identified that many private providers have been in operation for relatively shorter periods of time, when compared to their state owned counterparts, with the median length of time of just 12 years. This is further elaborated in Chapter 2 of this report, where the report looks at the beginnings of private providers in the UK. What is more significant here is the growth of this relatively new sector and the possible future potential in offering students a wider choice of study options in the UK. Middlehurst and Fielden (2011) claimed that this is a part of a global trend, where private providers have been growing faster than state funded institutions. For example, within Europe, privately owned educational providers account for over 25% of all educational establishments, and account for over 16% of total student enrolments, whereas in USA, over 61% of all providers are privately owned representing 26% of total student population.

Many providers are small businesses that cater for a select number of students with limited access to support services such as libraries, counselling services, clubs and societies. Therefore, this research argues the need to see private providers through the same view point as state counterparts. However, Middlehurst and Fielden (2011) claim many private providers have been very effective in taking advantages of developments of social media and Information Technology, they have managed to overcome many of these limitations by effectively integrating these developments into their business model. BIS's report (2013) claims a considerable variation of fees charged between providers, and that the fees are more market driven rather than regulatory. This in effect forces providers to focus on areas of strength and offer qualifications that complement those strengths rather than exploring areas for diversification. Middlehurst and Fielden (2011) agreed with this finding and supported that many private providers are small institutions, and in many cases just started their operations. Therefore, these providers require time and resources to develop and grow to compete in numbers with their state owned counterparts.

Many private providers work in partnership with state universities to offer their degree qualifications via franchise agreements (Middlehurst and Fielden, 2011), and BIS's (2013) data shows that 64% of the providers either work in partnership with universities or are planning to work as progression partners within the next five years, with only a small minority suggesting that they would apply for their own degree awarding powers or   seek Higher Educational funding. According to Middlehurst and Fielden (2011), these public-private partnerships blurred the definition of 'private' providers due to significant overlaps in areas such as funding and qualifications or awards, with many large for-profit providers such as Apollo Group and Laureate Education operating in multiple countries.

BIS (2013) identified that over 66% of students were in paid employment during their studies with over 60% of that population working on a full time basis. Further, over 90% of students claimed

that their choice of qualification was driven by their job role, hence the concentration of specialist private providers in areas such as marketing, accountancy, finance and law, with over 86% claiming that they are satisfied with the quality of the course delivery. This shows the understanding of business needs by private providers and their ability to attract working professionals.

1.2 Understanding Private Education Providers

Most private educational providers are commercial organisations with the focus on profitability and return on investment. Many organisations are supported and funded by entrepreneurial owners with several other business interests. Private Colleges attract large numbers of students – both home and EU as well as non-EU - that are studying for qualifications awarded by recognised Awarding bodies, universities – via franchise agreements - as well as Internships and Vocational qualifications (OfQual, 2011). For example, according to the StudyUK – a lobbying and membership group established by the Heads and Owners of Independent Colleges in the UK - these courses are flexible with several start dates, study modes, including full time, part time, open learning, online and distance learning with application procedures are fast and simple and offer good value for money when compared to the state funded Colleges and Universities (Study UK, 2012).

Middlehurst and Fielden (2011) argued that private education providers must not be classified as a separate sector or even as a different segment to state funded institutions as firstly, there are very few elements amongst private providers that cause them to coalesce together in one country or to cohere across countries through sharing common features and patterns of provision. Therefore private providers have a diverse variety of interests and they do not necessarily share data openly due to, in many instances, commercial sensitivity. Secondly, the range of providers is very heterogeneous in terms of the qualifications they offer and the length of their existence, as well as their business philosophies. Thirdly, the landscape of private providers continues to be dynamic, as new entrants emerge and existing providers change their shape or their owners on a regular basis, as many commercial organisations do. Fourthly, for classification purposes, the boundary between what is described as a 'public' or 'private' provider has become increasingly blurred as in many cases funding for both types of organisations come from public and/or private sources . For example, as public-private partnerships increase in scale, franchise arrangements between universities and private colleges increase in number and it is increasingly difficult to distinguish between private and public providers of education. BIS (2013) agrees with this argument, as their research highlighted that the Higher Education Funding Council for England (HEFCE) have been allocating funded places to students to study at private providers, under a separate category called "alternative providers". Further, BIS (2013) also argued that due to funding restrictions and limitations, publicly funded institutions are now more business-like and entrepreneurial.

Middlehurst and Fielden (2011) further stated that many perceive Higher Education as a public commodity and therefore question the quality and integrity of the delivery of qualifications, when the provider is commercially driven. Therefore, the need for more transparent and accessible data outlining the quality of delivery and the integrity of qualifications is paramount. This must further be emphasised by clear policy identifying the rights, responsibilities and obligations as Higher Education providers, regardless of their classification (Crossick, 2010).

Supporters of private providers claim that these providers cater for unmet student places by offering more market and commercially driven products. For example, by focusing on few specialist

qualifications, private providers can explore scale advantages and offer more competitive fees to students. Many private providers even claim to have specialist knowledge and commercial knowhow and are therefore in a better position, for example, to teach students in how to grow businesses rather than public sector organisations (Middlehurst and Fielden, 2011).

Critiques of private providers claim that as commercially driven organisations, private colleges tend to focus on narrow curriculum to cater for short term demands of the market and not necessarily focusing on wider benefits to society. Some even claim that high end private providers cater for the elite and the lack of investment on research activities lowers the quality of education. In addition the pressures in recruiting students forces staff members to ignore the potential success of students and their careers and employability. In extreme cases, evidence emerged to suggest private providers are simply selling qualifications in return for commercial gains, purposely ignoring quality standards to ensure their students pass and gain qualifications, even when they don't meet the required criteria for such awards (Middlehurst and Fielden, 2011; Crossick, 2010). The study conducted by the Home Office in 2011 identified wide ranging abuse of the student visa system by private providers in the UK, however no specific statistics were made available.

1.3 Quality Assurance of Private Providers

As mentioned above, the debate of the growth of private providers requires further research on the best way to manage the commercial aspects and quality aspects of the qualifications (Crossick 2010). The massive growth of this sector has not been without its negative aspects. For example, in many cases entrepreneurial owners were more concerned with their overall sales and profits, meaning that in several instances the quality of the education has been compromised to maximise profit (UKVI, 2010).

Several accrediting and governing bodies emerged during the last few years to establish and monitor minimum acceptable quality standards of these providers in the UK. Private providers that are seeking Highly Trusted Sponsor status to support visa applications to study in the UK, are required to undergo the Education Oversight process managed by the Quality Assurance Agency (QAA) or the Independent Schools Inspectorate (ISI). In addition, private providers may also seek non-mandatory accreditation by one of the three leading accrediting bodies who work with independent Colleges in the UK, such as the British Accreditation Council (BAC), the Accreditation Services for Independent Colleges (ASIC) and Accreditation UK managed by the British Council. Further providers that offer specialist qualifications may seek additional approvals from the respective awarding organisations, such as but not limited to the Chartered Institute of Marketing, Association of Chartered Certified Accountants, Chartered Management Institute, Confederation of Tourism and Hospitality and so on (Crossick, 2010).

Based on an analysis of the accreditation procedures of these awarding bodies, it was evident that a majority of these accrediting bodies focus on general compliance of private Colleges across several areas such as Health and Safety; legal status and financial stability; compliance with immigration rules and regulations; qualifications offered and the general profile of staff and students. However, none of these accrediting bodies identified quality from the students' perspective and identify what students expect in terms of quality from a typical privately owned

educational college. Many accrediting bodies, however, insist of conducting student surveys across pre-determined criteria to monitor their satisfaction and the quality of delivery. The most common pre-determined areas of surveys includes library provision, communal areas, profile of the teaching staff, marketing materials, and so on; but, this research found no evidence to suggest that an activity has been carried out to understand the expectations of students studying with private providers.

For example, BIS's report (2013) suggest that overall students were satisfied with their private provider by further explaining that over 86% of students are happy with the quality of the course, and over 82% are satisfied with the quality of the provider, with a further 82% satisfied with the accrediting or awarding body. It was unclear however whether the students were given the opportunity to express the areas of their expectations and how their chosen provider meets their expectations on a continuous basis throughout the study period.

1.4 The purpose, aim and objectives of the research

1.4.1 Purpose of the research

The general purpose of this research is to construct an empirical model to measure service quality performance of private colleges in the UK.

1.4.2 Aim of the research

This research aims to understand and determine the factors that are important to students, such as in service quality dimensions; in choosing to study at privately funded colleges in the UK and to develop an empirical model from the student's point of view; to identify and understand what students 'expect' from their private educational college; and what they actually 'experience'. Therefore, this research can be defined as an exploration in to service quality dimensions and student satisfaction at Independent Educational Colleges in the UK

1.4.3 Objectives of the research

1. To investigate the key service quality dimensions that are relevant for Independent Education Colleges in the UK;

2. To understand the degree of importance for each of these individual service quality dimensions in enhancing service quality within the sector;

3. To identify the quality gaps, and measure the customer satisfaction, within the independent educational colleges in the UK;

4. To develop an empirical model for measuring service quality for independent Education Colleges in UK;

1.5 Research questions

This research aims to critically explore and interact with students as well as other key stakeholders associated with private colleges in the UK and answer the following questions:

1.5.1 Primary research question

- Do private higher education providers in the UK meet student expectations?

1.5.2 Secondary questions

- What are the areas of service quality that are most important to students, when choosing to study at a private college in the UK?
- Does their chosen private college meet student expectations in all these areas?

1.6 Scope of the research, limitations and challenges

Even though higher education is generally defined as post 18 year education (British Council, 2012), the initial study revealed that many 17 year old students are currently studying or have previously studied at Private Colleges. These students are mainly studying for foundation level qualifications or professional qualifications at the Level 2 or 3 standards within the Qualifications and Credit Framework. Some examples of these qualifications include Travel and Tourism certificate qualifications offered by awarding bodies such as City and Guilds; Business Certificate qualifications offered by Pearson Education as well as Pre-University qualifications offered by providers such as Navitas and INTO. Therefore, students that are aged 17 years and above have been invited to participate in this study, as this group is considered as a major entry level student segment and if a private college meets or exceeds their expectations, it is likely that this group of students remain with the private provider to progress on to degree level qualifications (ibid). This decision is in line with definitions by the Higher Education Statistics Agency (HESA), which defined Higher Education as courses where the level of instruction is above Advance Level. Our preliminary study indeed showed that many qualifications offered at privately funded colleges accept students at the age of 17 years for Professional Certificate awards as well as Foundation qualifications, where private providers such as West London College, Williams College, E-Thames Graduate School and many others offer qualifications for students at the age of 17 years. This claim is further supported by the Home Office UK, where the qualifying age for an adult student, known as Tier 4 General, has been set for students of 16 years and above (Study UK, 2012).

This research focused on students studying at a private college during the last four years (from June 2009). The reason for this limitation was based on two considerations. Firstly, Private Colleges have undergone major changes in regulations and quality assurances since the beginning on 2009, and therefore this study focused around the modern image and the state of play with the private providers in the UK; refer to chapter two for developments within the private colleges.

Secondly, students that may have studied at a private provider prior to this period may be unable to recall their experiences fully and contribute accurately to the study. Further, these studies focused on students of the age of 17 years and above, at the time of their study at a private college to ensure only adult students are involved in the research. This decision was taken to overcome

ethical and regulatory requirements involved with minors, as well as being safe to assume that adult students are more likely to have established their expectations from the private college and therefore in a better position to contribute to the study.

One of the key challenges this study is likely to face is the wide geographical spread of students. Many international students who have studied at a private college during the last four years may have returned to their home countries. Further, it is also important to gather data from students that are currently studying at a private college, especially at various stages of their qualification - at the beginning, half way and near the completion- to have a good understanding of how their expectations of service quality dimensions may have changed. Further, due to ongoing changes introduced by the Immigration Authorities in the UK as well as their accrediting bodies, many private providers may hesitate to encourage their students to participate in a study of this nature, especially if wider quality gaps exist and such disclosures may adversely affect their approvals with their accrediting bodies.

1.7 Research methodology

In this study, the research methodology consists of three stages, as described in the table below:

Stages	Proposed outcomes and action points

Stage 1	**Exploratory analysis**
	
	- <u>An extensive literature review</u>
	    o To analyse and contextualise key concepts associated in quality and measurement of quality;
	    o To analyse and contextualise key models associated in measuring service quality in education sector
	
	- <u>Interviews and discussions</u>
	    o To understand the modern history and developments within private college sector in the UK

Stage 2	**Development of the conceptual model**
	
	- <u>Student focus group</u>
	    o To understand their expectations and why they have chosen to study at a private college in the UK
	
	- <u>Expert panel</u>
	    o To validate the findings of the focus group as well as to raise areas of further discussion

Stage 3	**Development of the measurement instrument and testing the conceptual model**

	- <u>Pilot study</u>
	   o To refine and develop the measurement instrument
	
	- <u>Proofreaders</u>
	   o To re-phrase questions and statements
	
	- <u>Online survey</u>
	   o Enhanced sample size of the participants to gather as much feedback as possible
	
	- <u>Analysis of data</u>
	   o To assess the validity and reliability of the measurement instrument

Table 1: the three stages of the study

As shown in the table above, stage one involves an exploratory literature review to understand and gather information on current literature regarding the measurement of service quality, which is not necessarily limited to private providers, but the education provision in general. The literature review further aims to understand the key areas of quality and quality assurance and how the thinking, as well as research into this area, evolved in the last few years, with specific attention given to quality concepts and models used in the educational sector in the UK. In addition, several interviews have taken place with key figures within the private college sector in the UK to understand the inception and the growth of modern private colleges.

Stage two is involved in conducting a series of student focus group discussions and feedback from an expert panel to understand and determine service quality dimensions, as well as to develop the measurement instrument i.e., an online survey, which then led to the development of the initial empirical model. It is specifically important to have a balanced combination of candidates representing various student segments studying at private colleges in the UK to obtain a balanced view of different service quality expectations. Further, the involvement of a well-balanced expert panel, once again representing various key stakeholders involved within the private college sector are important to understand different viewpoints.

The final stage involves the collection of data using the survey instrument developed during stage two above, and conducts relevant reliability and validity tests on the empirical model. This stage also involves a pilot study of the survey instrument to ensure that all questions are understood by the respondents the way they are intended. As the participants are likely to be spread around the world, it is important to determine the best way to approach the population as widely as possible to obtain a wider view of the study, and also ensuring the way the survey is distributed will not hinder the participant's ability to take part in the research.

1.8 Ethical considerations

Ethical considerations of the study have also been taken into account and it is essential to ensure the participants are not incentivised or coerced to take part in the study. In order to ensure this compliance, a description page was developed in consultation with the participants during stage two of the process. This cover letter was designed to explain the scope of the research and why the study has been conducted, at the same time highlighting that the participation is completely voluntarily and that no personal data will be gathered as part of the study. To ensure no minors are involved in the study, respective screening questions were designed to ensure full compliance with this requirement.

During the focus group stages, care was taken to ensure participants are fully aware of the nature and the scope of the study. In order to ensure participants of the focus group are comfortable with their participation, they were encouraged to use Skype conference facilities to add flexibility to their participation. During focus groups, participants were given the choice either to record the discussion, or simply create a transcript of the discussion.

1.9 Intended contributions of the study and the justification that the research is at doctoral level

The intention of this study is to contribute to the body of knowledge on quality assurance for private higher educational providers in the UK. Particularly, the main contribution will guide in effective understanding of student expectations at private colleges in the UK and examine why students chose to study at a private provider, as opposed to the equivalent state counterparts.

A review of current literature, as well as author's previous study at Master's degree level into this area, identified that several service quality measurement models have been used to measure quality in the education sector. The most commonly used modes are: the SERVQUAL model by Parasuraman et al., (1985); HEdPERF by Abdullah, (2006a) and SERVPERF by Cronin & Taylor, (1992). SERVPERF, and their other affiliate models, Weighted SERVPERF, SERVQUAL and Weighted SERVQUAL use Tangibles, Reliability, Responsiveness, Assurance and Empathy as service quality dimensions. Whereas HEdPERF uses non-academic aspects, academic aspects, reputation and programme issues as its dimensions (Abdullah, 2006a; Parasuraman et al., 1985; Cronin and Taylor, 1992). Most of the academic researches undertaken so far have been based on state funded educational institutions and there is a significant lack of research within the privately funded institutions worldwide. Most of the evidence of the usage of these service quality models in the private sector have been predominantly in the US (Ruby, 1998; Bitner et al., 1997; Labay et al., 2003), Malaysia (Sohail et al., 2003 and 2004), UAE (Abdullah, 2006b) and Hong Kong (Paula et al., 1999). However there is some evidence of the application of the SERVQUAL model found in the English Language schools in the UK (Hewitt et al., 1999; Cuthbert 1996a and 1996b), but no formal research has been conducted within the private higher educational institutions in the UK so far. Recently – mainly lead by government departments – an effort has been made to understand private sector higher education providers in the UK, led by studies within Universities UK (Crossick, 2010), Department for Business Innovation and Skills (June, 2013), Higher Education Policy Institute (2011), Quality Assurance Agency for Higher Education (2013) as well as the Home Office (2011). These studies were intended to understand the private providers and their behaviour, rather than to analyse and understand student expectations.

Therefore, this research may help to increase human knowledge of this area and contribute towards bridging the gap in knowledge. This research may also expand the boundaries of our understanding of this particular subject matter and encourage further research into this area and ultimately this research may contribute towards increasing human knowledge of quality assurance within the independent higher educational institutions in the UK and expand our understanding and bridge inconsistencies and gaps in the literature.

1.10 Structure of the Thesis

As a result of the complexity and the non-linearity of this research coupled with the significant lack of previous research in to private colleges in the UK, the structure of this report is divided into four broad areas: context and the purpose of the research, methodology and the initial conceptual model, data analysis and the service quality model and conclusions. Each of these areas has several chapters designed to achieve the overall objectives of that specific area. For example, in addition to this introductory chapter, a further three chapters have been allocated to understand the context and the purpose of the research. Three chapters have been assigned to understand the methodology and the initial conceptual model and three chapters, which including five sub-chapters have been allocated to the data analysis and the service quality model, followed by a chapter for conclusions. Diagram 1 shows how these four areas and the respective chapters that fall into each area link together to form the report. Altogether there are 11 chapters in this thesis, with chapter nine divided into five sub-chapters. The section below explains the key aims and features of each of the four areas as well as their associated chapters.

Section 1 - Context and the purpose of the research

The overall aim of this section is to provide a critical understanding of the study as a whole as well as to contextualise this research within the current literature. Due to the significant lack of specific studies conducted into the this area, a full chapter has been allocated to understanding the independent education sector in the UK, also known as private colleges in the UK. Further the exploratory literature review has been divided into two chapters, with one analysing the service quality and concepts with the second chapter specifically looking into service quality models. At the end of this section, this research aims to fully contextualise the study, its aims as well as the overall understanding of key quality concepts.

Chapter 1 - Introduction and the context of the research

As described in the beginning of this chapter, this introductory chapter is focused on briefly understanding the context of the study by looking at several key governmental reports published into private colleges in the UK. Further this chapter also discusses the purpose and the objectives of this research.

Chapter 2 - Independent Education Sector in the UK

Chapter two aims to understand the modern history and the developments within the independent higher educational colleges in the UK. This chapter further looks at recent studies conducted by various government departments, as a result of the changes introduced since 2009.

Chapter 3 - Literature review: service quality and concepts

Chapter three aims to look at service quality concepts in general and to highlight various viewpoints of quality and quality management, by looking at how these concepts evolved and changed during the last few decades.

Chapter 4 - Literature review: service quality models

Building on chapter three, chapter four will specifically look at the applications of key service quality models within the educational sector internationally and look into strengths and weaknesses of key models used in the area of service quality management.
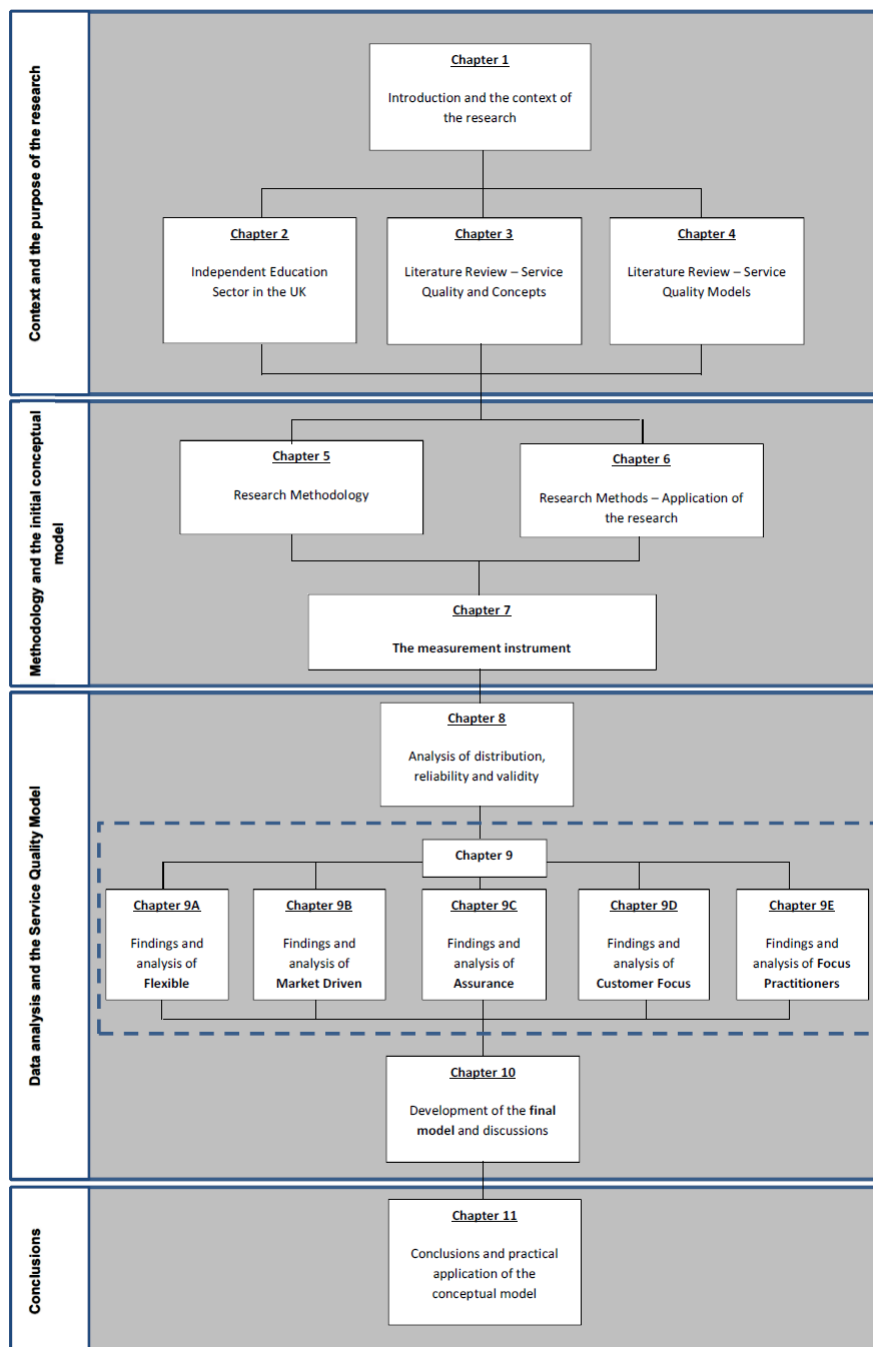
Diagram 1 – the structure of the thesis

Section 2 - Methodology and the initial conceptual model

This section is designed to provide an understanding of the research methodology at a philosophical point of view, as well as more specifically how these concepts are applied in this study. This section also aims to demonstrate how the initial exploratory findings obtained from section 1 link with the development of the measurement instruments, by specifically linking with student focus groups, expert panel reviews as well as pilot studies. This section consists of three chapters as follows:

Chapter 5 - Research methodology

Chapter five aims to analyse research methodology to understand philosophical concepts and thinking behind this research. For example, the researcher's views and understanding of ontological and epistemological views have been discussed in line with different research philosophical approaches.

Chapter 6 - Research Methods: Application of the research

Chapter six specifically looks at the methodology adopted in this study and how the aspects of literature review and methodology are integrated into the development of focus groups and expert panels as well as the development and distribution of the survey instrument. It will involve some discussions surrounding the analysis of data, such as, parametric and non-parametric data analysis techniques that have been discussed in the chapters to understand the most effective way of analysing data.

Chapter 7 - The measurement instrument

Chapter seven brings the outcomes of chapters five and six together to form the final measurement instrument. This chapter also discuss the rationale behind each question included in the measurement instrument and how the researcher is intending to distribute the questionnaire to maximise participation internationally.

Section 3 - Data analysis and the Service Quality Model

This section is designed to discuss and understand the findings of the data gathered via the measurement instrument. This section is formed of three main chapters, with chapter nine, divided into five sub-chapters i.e., one for each of the service quality dimensions. Firstly, this section embarks on analysing the overall data to establish the distribution and normality checks, followed by specific assessments of each service quality dimension, using descriptive and inferential statistical techniques.

Chapter 8 - Analysis of distribution, reliability and validity

The chapter aims to analyse the overall consistency of the data collected via assessments of central tendency as well as general distribution of the sample, in comparison to the overall population's distribution. Further, this chapter will also look at the overall reliability as well

as the validity of the measurement instrument using a variety of statistical techniques including structural equation modelling.

Chapter 9 – Flexible (9A), Market Driven (9B), Assurance (9C), Customer Focus (9D), Focus Practitioners (9E)

This chapter is designed to look at the findings of the five service quality dimensions more closely via both statistical as well as non-statistical methods. This section is further divided in to five sub-chapters, each one looking into a dimension at a time.

Chapter 10 - Development of the final model and discussions

Chapter 10 will bring the findings of chapters eight and nine together to form the final empirical model, by having further discussions with the expert panel as well as a student group.

Section 4 – Conclusions

The final section is designed to look at the overall service quality model and how this model may be used by private colleges in the UK to enhance their student offering, by making respective adjustments to the overall measurement instrument to suit their own students' and organisational requirements. This section is covered by chapter 11, as follows:

Chapter 11 - Conclusions and practical application of the conceptual model

This chapter aims to look at how this specific study compares with other key studies in this area and identify areas for improvements. Specifically looking at future applications of the model and how private colleges may adapt the model and its underlying principles to enhance their student experiences.

As described above, the four sections and the eleven chapters are designed to provide a clear structure to this report by showing how these areas link to together to form a better understanding of the underlying construct. Further, as described above, this structure also supports non-linearity of the report by providing a good understanding of key concepts, which enables the reader to understand the overall context and the development of the research more effectively.

1.11 Chapter summary

This chapter has provided an introduction and context to the research stating that the aim of the research is an exploration into Service quality dimensions and student satisfaction at Independent Educational Colleges in the UK. In addition this chapter also looked at the scope of the study and challenges that this study is likely to face in data collection. Further, this chapter also looked at the three stages in the methodology and how the remaining chapters of this thesis are designed to build and develop the research.

Chapter 2:

Independent Education Sector in the UK

Context and the purpose of the research

Chapter 1

Introduction and the context of the research

Chapter 2

Independent Education Sector in the UK

Chapter 3

Literature Review – Service Quality and Concepts

Chapter 4

Literature Review – Service Quality Models

Methodology and the initial conceptual model

Chapter 5

Research Methodology

Chapter 6

Research Methods – Application of the research

Chapter 7

The measurement instrument

Data analysis and the Service Quality Model

Chapter 8

Analysis of distribution, reliability and validity

Chapter 9

Chapter 9A

Findings and analysis of **Flexible**

Chapter 9B

Findings and analysis of **Market Driven**

Chapter 9C

Findings and analysis of **Assurance**

Chapter 9D

Findings and analysis of **Customer Focus**

Chapter 9E

Findings and analysis of **Focus Practitioners**

Chapter 10

Development of the **final model** and discussions

Conclusions

Chapter 11

Conclusions and practical application of the conceptual model

2.0 Chapter Introduction

Developing from the brief contextual understanding gained from the previous chapter, and as shown in the thesis structural diagram on the previous page, this chapter also forms a part of section one, i.e., context and the purpose of the research, and aims to further develop the contextual understanding by looking at the modern history of private colleges in the UK and how they have evolved during the last few years to become what they are today. This chapter will also examine the structure of the private providers and the categorisation of these providers using functional business formation as well as qualifications delivered.

Further, it will be looking at some key private colleges in the UK under each of these categories and how they integrate with public sector providers to not only deliver academic content but also to deliver support for students.

Finally, this chapter will look at possible future developments within the private education sector in the UK.

2.1 Modern History and Developments within the Independent Education Sector in the UK

Before embarking on the development and quality of delivery, it is important to understand the history of the modern independent colleges as a cornerstone into the study of service quality and performance.

A significant lack of published research has forced the author to put together a group of independent college experts in the UK to identify the historical developments of modern independent colleges. The panel consists of six individuals who are closely linked with the sector who have a significant amount of expertise in both owning, as well as managing, private colleges in the UK during the last three to four decades. The author had several discussions with the panel individually and collectively to piece together information to identify key stages of development of the modern private colleges in the UK. It was evident from the early discussions that the most significant developments were lead by government policies on the economy and immigration, rather than policies relating to education. These in effect demonstrate the commercial nature of independent colleges, as opposed to state funded higher educational providers.

<u>Independent or private?</u>

Further the terms, 'independent colleges' as well as 'private colleges', refer to the same group of organisations in the UK. For example, governmental and accrediting bodies such as the Department of Business Innovation and Skills as well as accrediting bodies such as the British Accreditations Council prefers the term 'independent', whereas organisations such as the UK Visas and Immigration Services as well as the Quality Assurance Agency prefer the term 'private' or 'privately funded'. This was also confirmed during the interviews with the experts, with some suggesting that the term 'independent' derived from the 'independent schools' definitions by the previous Department for Education and Skills (DfES) (personal interviews with, Yousuf, 2013; Cleaver, 2013; Pack, 2013; Raife, 2013; Pathmanathan, 2013; Bray, 2013).

Therefore both terms have been used in this report to refer to the same group of organisations that are mainly operating in the UK and provide post-secondary education.

The discussions with the experts identified that the modern history of independent colleges can be broadly categorised into four stages as a result of changes made to economic and immigration policies. The stages are; Pre 1970s, 1970s to 2004, 2004 to 2012 and 2013 onwards. The term 'modern' is adopted as today's private colleges are a reflection of changes and developments that took place during the last four to five decades, and the full history of private providers in the UK was not therefore part of this study.

<u>Pre 1970s</u>

Independent colleges that existed prior to the 1970s were mainly vocational qualification focused institutions. They offered a limited number of short qualifications – non higher educational qualifications - that lead to awards that are vocational, such a brick-laying, sewing and typewriting. Independent colleges were unable to compete with state funded institutions due initially to '*tuition free higher education*' and then '*government subsidised*' education policies. These policies in effect made '*paid for*' education less attractive to students (Cleaver, 2013, personal interview, 11th April).

For example, an independent college such as the Metropolitan College along with the School of Careers focused on distance education. It was run by entrepreneurs such as Joseph Cleaver and targeted gaps within the mainstream state dominated market by providing distance learning qualifications. The exceptions to this were institutions such as Aldermaston College, who offered General Certificate in Education qualifications (ibid).

In reality, independent colleges were simply unable to compete with state funded institutions due to heavy government subsidies or in many cases '*tuition free higher education*'. This in effect, discouraged entrepreneurial owners investing in the private higher educational sector during this period of time (Yousuf, 2013, personal interview, 16th March).

The following table, adopted by Minxuan (2000: pp 8), shows key countries with a free higher education systems in 1960s.

Group	Number of countries	Examples
Western Europe	Over 10 countries	Germany, France, Greece, Sweden,
Soviet Socialist Bloc	14 countries	China, Mongolia, Poland, Soviet Union
Commonwealth	Over 10 countries	Australia, New Zealand, UK
English-speaking African	Over 10 countries	Botswana, Malawi, Uganda, Tanzania
French-speaking	Over 10 countries	Benin, Cambodia, Nigeria, Senegal

Table 2: Countries with free higher education systems in 1960s

As shown in the table above, the free higher education systems were led by socialist nations, where education is seen as a strictly controlled commodity. Many former French and British colonies offered free education to the selected few as a part of educational expansion activities with their respective nations.

The first evidence of a move away from '*tuition free higher education*' to government subsidised education started to emerge in late 1960s in the USA, where the government persisted on their tuition charge policies with the belief that higher education was not a real and total '*public good*', and beneficiaries should pay at least part of the cost. This subsequently led to the adoption of '*government subsidised higher education*' (Minxuan, 2000: pp 12).

Even with the subsidised approach, independent providers were unable to compete with state providers that attracted government funds. During this period, independent providers continued to focus on non-higher educational qualifications and exploring gaps within the educational markets. For example, mass immigration in the 1960s offered little help and awareness of commercial education as a large number of government funded scholarships were made available for international students looking to gain educational qualifications. It was estimated that over 20,000 international students were studying at British Universities in 1963, mainly driven by scholarships and access to heavily subsidised education (UKCISA, 2008).

However, a differential fee for overseas students was announced by the Labour Government in December 1966, when Mr Crosland was at the Department for Education and Science (DES). The overseas student fee for 1967-68 was set at £250 in higher and advanced further education. This was compared to £70 for home students. Even though this increase slightly opened up the market for opportunistic entrepreneurs, the profit margins were hard to come by as a result of government subsidies, therefore the opportunities available for commercial educational were still very limited and restrictive (UKCISA, 2008).

1970s to 2004

According to the report published by the UK Council of International Student Affairs (UKCISA, 2008), the real competition and the birth of independent colleges in fact began in the early 1970s. Influenced by the oil crisis and subsequent economic recession governments were forced to abandon the '*tuition free higher education*' altogether.

Further, the UK government, with the looming economic recession, announced a further introduction of higher tuition fees for international students in the 1970s, and then subsequently introduced full cost fees for overseas students in the 1980s (UKCISA, 2008).

These changes enabled independent colleges to develop qualifications and appeal to overseas students who were planning to study in the UK, and compete with a previously heavily subsidised qualification's market by developing a streamlined course delivery model and flexible study options (Yousuf, 2013, personal interview, 16th March).

Business entrepreneurs saw this as a key opportunity to invest money in setting up independent colleges, specifically targeting international students by offering competitive fees. Central London College, established in the early 1970s can be considered as the pioneer of modern independent colleges. In fact, many staff members of Central London College went on to establish their own colleges, which eventually lead to the massive growth in the sector (Minxuan, 2000).

This growth was further fuelled by the then Department of Education and Science's (DES) (BIS, 2011) decision to withdraw its inspection and accreditation of independent colleges of further and higher education. This announcement was made in November 1980, with the complete abolition of

the inspection service coming into effect from April 1982 (UKCISA, 2008).This meant that commercial entrepreneurs were able to set up colleges and start recruiting students without having to abide by any mandatory accreditation requirements (Yousuf, 2013, personal interview, 16th March).

Organisations such as the British Accreditations Council were established in 1984 to provide an optional accreditation service. However, the engagement in the early stages was limited to those institutions that were really focused on attracting long term higher educational students (BAC, 2012).

The UK Council of International Student Affairs (2008) claims that initiatives by the British Council in the 1980s, as well as Tony Blair's Prime Minister's Initiative in the 1990s, gave support and legitimacy to the UK's global marketing campaign as an educational destination for international students. International student advice, support and the overall 'UK welcome' from government and institutions became increasingly important and resulted in a significant growth in international student numbers in the UK (UKCISA, 2008).

The following diagram which was adapted from UK Council of International Student Affairs report on mobility matters: 40 years of international students (UKCISA, 2008: pp 7) shows the growth of international student numbers in the UK from the 1990s to early 2000s.
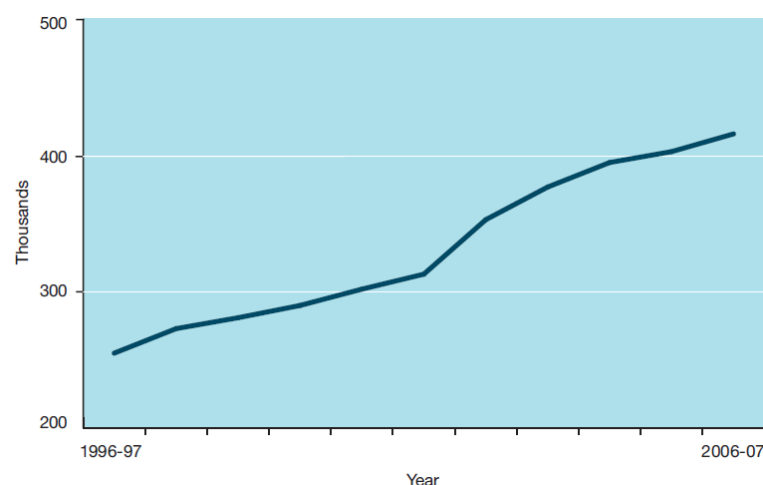
Diagram 2: the growth of international student numbers in the UK

As seen from the diagram above, the number of international students in the UK, grew significantly from 1996 to 2006, with big increases in 2000 to 2002. There may be several reasons for this growth; including the UK education's branding activities lead by the government, more private providers making the application procedures and qualifications more flexible and attractive to students as well as the general global trend towards education, with the opening up of key markets in the Far East, Asia, the Indian sub-continent as well as in Africa (Bray, 2013, personal interview, 14th March; Raife, 2013, personal interview, 2nd February).

According to BAC's report published in 2010, in 1992-1993 there were around 3000 independent colleges of various kinds existing in the UK with just over 500,000 students studying for qualifications (BAC, 2012).

In the early 2000s, international student numbers grew to over 200,000 with an estimated annual value approaching £4bn and a significant number of students studying at independent colleges. The British Council published 'Vision 2020' predicting further growth in demand, especially from international student markets. Independent providers flourished and grew in this period as a result of competition driven products which also led to the growth of providers that purely focused on financial gain (UKCISA, 2008).

2004 to 2012

According to the report by the UK Council of International Student Affairs, the number of international 'competitors' in what was now being described as an 'industry' was also increasing. The Asian Tiger economies and, more recently, European countries offering courses in English, added extra competition to the UK's thriving education sector (ibid)

In addition, visa and immigration issues continued to cause controversy. Numbers, especially from China and India, dominated recruitment efforts and fears grew regarding the over-reliance on too few markets. Many educational providers, especially independent colleges, targeted fast growing markets to attract students who were willing to pay relatively higher course fees (Minxuan, 2000).

The quality of the student experience – rather than just good marketing and promotion – became increasingly accepted as the key to competitive success, and so the second stage of the Prime Minister's Initiative (PMI2) was launched with 'the quality of the experience' as one of four key priorities. As a result, this period saw everal significant changes take place within the sector, as a result of the boom of providers as well as the students (UKCISA, 2008).

As mentioned above, independent colleges were not subject to any mandatory listings or checks. However, organisations such as the British Accreditations Council (BAC), the British Council, awarding bodies, as well as universities, established standards for optional accreditations to independent colleges in the UK. During this time, independent colleges were considered purely as commercial entities and movements such as those by the Educational Counselling Services (now known as EducationUK partnership) as well as the British Council attempted to distinguish providers with exceptional quality of delivery (British Council, 2012).

In 2004, the Department of Education and Skills (DfES) – now known as the Department of Business, Innovation & Skills – introduced a mandatory registration scheme for independent providers, called the Register of Education and Training Providers (DfES, 2012).This registration did not involve mandatory quality inspections but business details, such as incorporation certificates, lease agreements and so on. However, due to the lack of mandatory quality assurance requirements, serious and quality-focused independent colleges then attempted to add to their credibility by partnering with UK universities to offer degree programmes via franchise agreements. This in turn enabled these independent colleges to have their details included in the 'Listed Bodies Order', by the Department of Business, Innovation and Skills (ibid).

In 2007, due to the growing number of malpractices at independent colleges, specifically in international student recruitment, the UK Border Agency announced plans for a points based system. This system required all independent colleges who are planning to offer qualifications to non-EU students to become a sponsor and take extra responsibilities in assurance of quality (UKBA, 2011). As a result, in 2009, all educational providers who were planning to recruit non-EU students were required to apply to become 'sponsors' for immigration purposes. Independent colleges that had obtained accreditation from one of the approved accrediting bodies were eligible to apply to become a sponsor. This, in effect, created the first attempt at introducing a mandatory accreditation requirement for independent colleges. However, the accreditation process soon became less reliable, as accrediting bodies identified by the UK Border Agency soon became too commercial and not fit for purpose (ibid).

In 2011, the government decided to introduce more robust quality assurance requirements for independent colleges in the UK and introduced the concept of educational oversight (Cleaver, 2013, personal interview, 11th April).

This requirement can be seen as the most robust of developments so far, and the two organisations approved for this, The Quality Assurance Agency (QAA) as well as the Independent Schools Inspectorate (ISI), have embedded a quality assurance process driven by students' learning needs and opportunities (QAA, 2013; ISI, 2013).

2013 onwards

As of May 2013, just over 215 Independent Colleges have applied for the QAA's Review of Educational Oversight and just over 350 independent colleges for ISI's Educational Oversight for Private Further Education. However, a number of independent colleges still fall outside these mandatory requirements as they focus on delivering qualifications for non-visa students (QAA, 2013).

A new form of independent college has started to form since 2013. They work in very close partnership with universities and in a number of cases, independent colleges have even been allowed to trade under the name of the awarding university (ibid).

Some examples include; Ethames Graduate School of Management trading as University of Sunderland's London Campus and West London College trading as Heriot-Watt University's London Campus. These arrangements enable universities to offer a variety of student intakes as well as competitive fees. For example, research conducted by the researcher in June 2013 found the following fee ranges offered by London campuses of universities.

Degree level	Minimum fee	Maximum fee
Undergraduate honours degree	£4,950 per year	£8,000 per year
Master's degree	£4,950	£14,000

Table 3: course fee range of London campuses of universities

As seen from the table above, the fees for an undergraduate degree course ranges from £4,950 to £8,000 per year, with masters degree qualifications ranging from £4,950 to £14,000 for the full qualification. This shows the massive variances of fees offered by London campuses of universities in the UK. Further the lower end of the fees may be an indication of the market sensitivity of students and providers, whereas the higher end of the spectrum are comparable to the fees charged by the main campuses of universities themselves.

These arrangements have been mainly restricted to London, as universities saw the gap in the market to attract overseas students that were drawn to London (Pathmanathan, 2013, personal interview, 7th April). The following table shows key arrangements where universities operate with independent colleges and also shows the number of degree qualifications offered in London as of June 2013.

Name of the institution	BA	MA	MBA	MBA - Top up
BPP Business School		1		
City of London College (London Campus of University of Salford)	2			1
EThames Graduate School (degree qualifications offered by University of Bradford)	6		8	
FTC Kaplan (degree qualifications offered by Liverpool John Moors University)	18		1	
Glyndwr University, London Campus	5		1	
Greenwich School of Management (degree qualifications offered by university of Plymouth)	10		9	
IBAM/RDI, London and Coventry (work with several university partners)	5		11	
Kensington College of Business (degree qualifications offered by University of Wales)	8		11	
London College of Accountancy			2	3

(London campus of Anglia Ruskin University)				
London School of Commerce (degree qualifications offered by several universities)	1		3	
Swansea Metropolitan University	69	17	3	
Trinity St David, London Campus	169	63	10	
University of Sunderland, London Campus	3		6	
West London College, Heriot Watt University's London Campus	4		1	
Williams College (degree qualification offered by University of Gloucester)	7			1
Total	**307**	**81**	**66**	**5**

Table 4: number of degree qualifications offered by London campuses of universities

As seen in the table above, an analysis of 14 providers in London who offer over 300 undergraduate qualifications as well as nearly 150 masters degree qualifications, with Trinity St. David University's London campus as well as Swansea Metropolitan University's London campuses offering nearly 50% of these offerings.

Further, not wanting to be restricted to just one student intake per annum, universities, via these collaborative partnerships with independent colleges, offer a variety of entry points.

No. of times a course starts a year	1	2	3	4
	One intake	**Two intakes**	**Three intakes**	**Four intakes**
BA	10	185	23	15
MA	54	9		
MBA	14	2	12	28
MBA - Top up			3	

Table 5: number of entry points offered by London campuses of universities

As seen in the table above, over 250 degree qualifications have more than one student intake per annum. This shows the tendency to have regular start dates of qualifications, meaning that students do not have to wait long to start their qualifications. Once again, this indicates the customer focused approach of these providers in London who wanting to offer more flexible entry points to attract students and to meet their changing needs.

2.2 The present state of the private college sector in the UK

Middlehurst and Fielden (2011) stated that compared to the USA, the private sector in the UK is small, but growing. Their study also stated that the majority of private colleges in the UK are based in London or the south east of England, which indicates the similarities between the commercial natures of these colleges. Their study further categorised private colleges into the following areas (pp. 8):

Function	Sub function
Delivery of academic content	Offering own degree (using UK degree awarding powers)
	Offering own non-UK degree (with accreditation overseas)
	Offering own award in partnership with a UK institution
	Offering an award from a UK partner institution
	Offering own certificated module within (or alongside) a partner university's degree programme
	Offering own (overseas) online awards (with no UK face-to-face support)
	Partnership in online course delivery
Pathway providers	English language and study skills training
	Foundation year programmes
	First year programmes
	Pre-Masters programmes

Partnership in providing content	Production of course materials under subcontract
	Provision of online learning modules to fit within an institution's virtual learning environment
Other types of relationship	Partnerships with the private sector in continuing professional development design and delivery for third party clients
	Contracted tutorial support in the UK and overseas
	Educational testing and assessment services in specialist fields
	Granting of accreditation or quality assurance services in professional or technical fields
	Agreed articulation into a university's degree programmes from qualifications awarded by a private provider

Table 6: categories of private colleges

This categorisation is consistent with the categorisation provided by the British Accreditation Council, which categorise private colleges into four areas as follows:

Independent Sixth Form and Tutorial Colleges	- Provide access courses to Universities such as GCEs, A/AS levels, IELTS - 'Private English Language Schools' can be included into this category
Business and Professional Education and Training	- Offers professional courses to individuals and linked to a recognised awarding body
Higher Education	- Works in partnership with Universities and offer programmes leading to degrees
Non-Collegiate Providers	- Ad hoc course providers (short term, less full time)

Table 7: categories of private colleges by British accreditations council

The above two categorisations, based on the type of partnerships and qualifications offered, deviate from the categorisation provided by, for example, the Department of Business Innovation Skills (BIS). In their report in 2013, BIS categorised private providers, using their business definition, into three broad categories as; Not for Profit , For Profit, and Others. Their respective findings are as follows.

BIS's study (2013) stated that 54% of the providers work as For-Profit, with 40% Not-for-Profit and 6% as Other. BIS further broke down these providers into respective subject areas, and found that the majority of For-Profit providers focus on subject areas such as Business & Management, whereas majority of Not-For-Profit providers focus on areas such as arts and religious studies.

Further, the Higher Education Funding Agency (HESA) in 2011 categorised providers using the mode of delivery into: Laboratory-based subjects, Subjects with a studio, lab or fieldwork element, Business, management and law, other subjects and unknown. Each of these categories were then further broken down into full time, part time, distance learning and others. The summary of their findings are as follows:

Course mode	Frequency	Percentage
Full time	57077	60.2%
Part time	20465	21.6%
Distance Learning	17165	18.1%
Not Stated	65	0.1%
Total	**94772**	**100%**

Table 8: categories of education providers by Higher Education Funding Agency

Course subject area	Frequency	Percentage
Laboratory based subjects	1655	1.7%
Subjects with a studio, lab or fieldwork element	8051	8.5%
Business, management and law	55425	58.5%
Other subjects	29570	31.2%
Not stated	71	0.1%
Total	**94772**	**100%**

Table 9 : subject areas of students as per Higher Education Funding Agency

The two tables above show the popularity of business and management subjects as well as full time qualifications. However, it is interesting to see that the number of students who choose to study as either part time or distance learning account for nearly 40% of overall student numbers. This indicates a growing trend of students wanting to study qualifications while they work. However, these tables do not provide an efficient classification of private providers, as their scale and the functionality were not reflected in these figures.

Therefore, as a result of blurred lines between public and private sector providers (Middlehurst and Fielden, 2011; Crossick 2010), this research argues that a function based criteria provides a better

understanding of private providers, as opposed to organisational nature (as used by BIS in 2013) or course mode or subject area (as used by HESA in 2011). In order to facilitate such a function based categorisation and understanding, the researcher used a combination of the categorisation by Middlehurst and Fielden, (2011) as well as the feedback gathered from personal interviews with key industry experts.

2.3 Key providers within the private colleges in the UK

This section of the report aims to identify key providers in each area of the functional categorisation and how they operate in the UK. As described above, this categorisation is based on previous studies by Middlehurst and Fielden, (2011), feedback from expert interviews as well as the secondary research by the researcher. Accordingly, this grouped private colleges into two broad categories as deliverers of academic content and providers of academic support to higher education.

2.3.1 Delivery of Academic Content

Delivery of academic content covers the majority of private providers, those organisations actively involved in delivery of the qualifications via their own lecturing staff members and using their own teaching facilities (ibid). Further, this research identified four sub-categories in this section: those offering a UK degree with their own degree awarding powers; those which offer their own non-UK awards; those which offer degrees of publicly-funded universities; and awards involving various public/private partnerships in content design and delivery.

Providers with degree awarding powers

Several private providers currently have taught degree awarding powers in the UK and therefore are officially classified as having the same status as publicly funded institutions for visa and funding purposes, such as Higher Education Institution (HEI) status by the UK Immigration Authority or Recognised Body (RB) status with the Department of Business Innovation and Skills (Pack, 2013, personal interview, 22nd April).

Providers in this category as of 2013 include, but are not limited to, BPP University College Ltd, the College of Law, the University of Buckingham, Ashridge Business School and Regents University College. There are also several others in the process of obtaining such powers, such as Resource Development International as well as Kaplan (Raife, 2013, personal interview, 2nd February).

Further, these providers offer taught degree qualifications in the UK, with many categorised as top end providers in their chosen subject specialisation. For example, Ashridge Business School is regarded as one of world's leading business schools by the Financial Times Business School ranking (2012), and the College of Law, similar to BPP University College, is regarded as a leading law school in the UK (Cleaver, 2013, personal interview, 11th April).

Private providers offering their own non-UK awards

These private providers offer non-UK based qualifications to their students, with a majority of providers linked to American Universities and some with other European universities.

Some of the key providers in this category include American InterContinental University, Richmond American International University, Schiller University and Hult International Business School

(formerly Huron University). These providers offer qualifications that are awarded by non-UK based universities, but with comparisons to UK qualifications, via UK NARIC, the National Agency are responsible for providing information, advice and expert opinion on qualifications worldwide (Cleaver, 2013, personal interview, 11th April).

In addition, international specialist providers such as Laureate Group, who have recently launched their London based prestigious hotel management school; Glion, which offers Swiss undergraduate and masters qualifications in hotel management, catering and culinary arts can also be listed under this category (Bray, 2013, personal interview, 14th March).

In addition to the above, many non-UK providers make their degree qualifications available in the UK as distance learning qualifications. The partnership of the University of Phoenix is a good example for this model (Pack, 2013, personal interview, 22nd April).

<u>Private providers offering an award from a UK or foreign partner institution</u>

This is the most commonly used model by private providers, as this model simply enables private providers to offer university degrees via franchise or validation agreements. These providers, regardless of whether they are private or public, are recognised as listed bodies by BIS. As per the BIS's description, listed bodies are institutions, which do not have the power to award their own degrees, but may provide full courses which lead to a degree of a recognised body (Yousuf, 2013, personal interview, 16th March).

This area has further developed since 2013, as mentioned in 2.1, where universities started to have an equity stake in private providers and called them 'branch campuses'. As a branch campus, these private providers have similar rights to their parent public sector provider, but the number of qualifications offered have been streamlined to attract the fast growing student market (Bray, 2013, personal interview, 14th March).

There are several branch campuses that currently exist in the UK (as mentioned in table 4 above): London College of Accountancy working as branch campus of Anglia Ruskin University, West London College working as branch campus of Heriot-Watt University, QA Business School's Partnerships with University of Ulster, City of London College and University of Salford and E-Thames Graduate School of University of Sunderland.

In addition, a further 198 institutions work as franchise or validation degree providers (BIS 2013) in partnership with recognised UK bodies. Some examples include London School of Marketing, Kaplan and Amity College working with Anglia Ruskin University, British Institute of Technology working with Coventry University, London School of Business and Finance's arrangement with University College of Lancashire and University of Lincoln as well as Greenwich School of Management's agreement with University of Plymouth (Yousuf, 2013, personal interview, 16th March).

In addition, many private providers work in partnership with UK and non-UK based awarding organisations to offer vocational qualifications, which are accredited by the Qualifications and Credits Framework (QCF). Awarding bodies that are widely associated with private providers include Pearson/Edexcel, Association of Business Executives, Chartered Institute of Marketing, Association of Chartered Certified Accountants and Chartered Management Institute. Many of these awarding bodies have their own progression arrangements with UK and non-UK based universities, and

graduates can apply for degree programmes with advanced standing. Some examples of private providers working in partnership with these awarding bodies include Oxford College of Marketing, BPP Professional, Cambridge College of Marketing and St Patricks (Pathmanathan, 2013, personal interview, 7th April).

<u>Public/private partnerships in content design and delivery</u>

There are instances where private colleges or institutions have their programmes validated by a public sector provider. Even though Middlehurst and Fielden, (2011) and Crossick (2010) argued that validated degree qualifications are better suited at the category above, this research believes that the validated degrees, where a public sector university awards a qualification that is tailor made and designed for a private provider, is more suitable under this category, as in many instances the same qualification is not available at the validating university's main campus.

Examples of this approach include the validated qualifications of London School of Commerce by the University of Wales Institute of Cardiff, Kensington School of Business's validated qualifications by Cardiff Metropolitan University and Megan-Charta College's validated degrees by University of Wales (Pathmanathan, 2013, personal interview, 7th April).

Further examples include, IFS Business School's joint award with University of Surrey and European Business Schools qualifications with the Open University (Bray, 2013, personal interview, 14th March).

In addition to this, several private providers act as content providers for public institutions and support distance learning provision. Example include, Home Learning College providing content to several awarding bodies, Resource Development International working as distance learning support providers to several UK universities, London School of Marketing delivering Anglia Ruskin University degree qualifications and Pearson Education publishing supporting degree qualification delivery of Heriot-Watt University (Pack, 2013, personal interview, 22nd April).

2.3.2 Providers Offering Academic Support to Higher Education Institutions

This area is comparable and similar to pathway providers (Middlehurst and Fielden, 2011), as these institutions offer qualifications leading to entry or advanced entry to a degree qualification at a University. Therefore these providers do not compete directly with universities, but simply act as feeder centres by having clear progression arrangements with universities, in many cases by closely aligning their qualifications with the entry requirements of university degree qualifications (Cleaver, 2013, personal interview, 11th April).

There are two distinct categories of providers in this area; providers of integrated foundation qualifications and other support centres.

Integrated foundation providers are private institutions which have direct and formal arrangements with universities to accept their graduates, usually for the first year entry to undergraduate degree qualifications or entry to master's degree qualifications. Three key institutions of this nature operate in the UK; the Navitas Group working in close partnership with nine UK Universities, including Anglia Ruskin University, University of Hertfordshire and University of Portsmouth. INTO group, working in partnership with City University, University of East Anglia, University of Exeter, Glasgow Caledonian

University and University of Manchester. Finally the Study Group is also a well-established provider and works in partnership with University of Brighton, Heriot Watt University, University of Huddersfield, Keele University, Kingston University and University of Lancaster. In many instances, these providers operate within their partner University's premises to provide a closer integration with progression for their students (Raife, 2013, personal interview, 2nd February).

In addition to the three main providers mentioned above several other providers have informal links with universities, to accept students for their degree qualifications. These providers, classified as other support centres, include Cambridge Education Group, Kaplan International College and British Study Centres. In addition, according to the Independent Schools Inspectorate, several hundred English language and further educational colleges also act as feeder centres for public sector universities in the UK. The leading institutions in this category include, London Study Centres, St Giles School of English, David Game School of English, International House and Oxford House College (Cleaver, 2013, personal interview, 11th April).

The classification above recognises and identifies private colleges by their function and the role played in terms of their arrangements with awarding organisations. However, according to the feedback received from the experts, the market is dynamic and prone to change, mainly as a result of wider governmental policy changes. Therefore, the next section of this chapter will focus on potential future developments and likely changes that private colleges can expect to have in the next few years (Yousuf, 2013, personal interview, 16th March).

2.4 Potential Future Developments for Private Providers

According to Middlehurst and Fielden, (2011) and Levy (2009), one of the key reasons why public sector providers and governmental bodies have concerns about private providers is their pricing policy and price determinants, as to ensure that lowering prices does not affect quality of qualifications. In many cases, private providers recruit international students and set their fees at levels well below those charged to international students by their awarding institutions, as seen in table 2 above. This practice can adversely affect public sector providers with the recent increase in tuition fees and the reduction of government funding, meaning a vital source of extra funding from international students has now diverted to private sector providers.

Crossick (2010) argues that price differential between public and private providers could be attributed to the different experiences and facilities that private sector students receive. For example, according to BIS (2013) many private providers are small institutions with a couple of hundred students and therefore do not incur huge costs in maintaining large premises. According to BIS (2013), the annual tuition fees charged by private providers for international students vary from £11,000 to £3,000, which is a considerable difference from the regulated fees of public providers.

This study followed a model adopted by London School of Marketing, where they simply hire classrooms at various prestigious locations including Imperial College, Birkbeck College, University College of London, Kings College and the British Bankers Association to deliver their lessons. This in effect means that London School of Marketing will be more effective in managing their costs, as they only rent rooms according to student demand. Further, London School of Marketing also adapt effective Information Technology solutions to provide e-library facilities to their students as well as

having the majority of their back office staff in Sri Lanka. All of these aspects contribute to lower overheads and therefore qualifications can be offered at lower prices.

Further, as more and more conglomerates are also entering into the private education market, this is another factor that needs particular consideration. For example, huge multinational acquisitions such as Apollo Group's purchase of BPP University College, Capella Group's acquisition of Resource Development International and Sovereign Investments acquisition of Greenwich School of Management will only lead to further regulation introduced by the government to ensure quality is not compromised for commercial gain (Middlehurst and Fielden, 2011).

According to Crossick (2010), in order to sustain the growth of the private providers, the quality of the provision must be protected to ensure the UK's status as an international hub of education is maintained. The policy decisions taken by the UK Immigration Authorities, the Department for Business Innovation and Skills as well as accrediting bodies such as the Quality Assurance Agency and the Independent Schools Inspectorate have gone so far towards removing bogus providers, but more needs to be done to ensure that the delivery of quality higher education either equals or exceeds the UK's reputation internationally. It should continue to attract students globally, encourage ethical recruitment and the enrolment of international and home students to ensure only students with the right entry requirements are accepted on to qualifications. This will protect students and the public from fraudulent providers and from institutional and commercial failure and will ensure transparency in the operation of higher education providers so that information is publicly available for potential students to choose the programmes and institutions that serve them best.

Middlehurst and Fielden, (2011) identified seven possible scenarios, which contain the following elements and influence wider changes in policy. They are a diverse but segregated world in which different regulatory models are applied to different categories of educational institutions; a higher education system driven principally by a competitive market ethos; demands and customers; private sector funding flowing into expanding the private sector as opposed to improving the public sector with many diverse conglomerates getting involved in the education sector, especially when the markets and profitability grows; government funding used to incentivise private providers or to fill in gaps in publicly funded provision and explore cost and efficiency savings; failure of some public institutions leading to the state relying on the private sector more and more to fill skills gaps; involvement of the government to provide locally relevant or specialist education in areas where the private sector has not penetrated or been commercially viable; and finally, international providers playing a bigger role by establishing campuses through a UK higher education hub and operating internationally to provide UK qualifications.

Finally, the experts interviewed as a part of the study agree that more must be done to increase transparency and remove bogus and ultra-commercial organisations from the market. However, experts also see private colleges as a more flexible and market driven alternative to state providers, where rapidly changing customer expectations means, many state universities lack the flexibility to meet customer requirements. Private providers therefore must be seen as a complimentary addition to the education sector in the UK and more must be done to recognise and enhance private and state integration, but with rigorous quality assurance policies and processes (personal interviews with, Yousuf, 2013; Cleaver, 2013; Pack, 2013; Raife, 2013; Pathmanathan, 2013; Bray, 2013).

2.5 Chapter Summary

This chapter looked at the modern history of private providers in the UK via a combination of published research by the governmental departments, academics as well as comments gathered from personal interviews with six experts in the field. These findings have been further supported by secondary research carried out by the researcher.

The private providers in the UK were therefore categorised under two broad headings of delivery of academic content and providers of academic support to higher education. Characteristics and examples of each of these types of providers were identified and discussed.

Finally, this chapter also looked at possible future developments and policy decisions that are likely to influence the shape and future of the sector.

Chapter 3:

Literature Review (Service quality and concepts)

Context and the purpose of the research

Chapter 1

Introduction and the context of the research

Chapter 2

Independent Education Sector in the UK

Chapter 3

Literature Review – Service Quality and Concepts

Chapter 4

Literature Review – Service Quality Models

Methodology and the initial conceptual model

Chapter 5

Research Methodology

Chapter 6

Research Methods – Application of the research

Chapter 7

The measurement instrument

Data analysis and the Service Quality Model

Chapter 8

Analysis of distribution, reliability and validity

Chapter 9

Chapter 9A

Findings and analysis of **Flexible**

Chapter 9B

Findings and analysis of **Market Driven**

Chapter 9C

Findings and analysis of **Assurance**

Chapter 9D

Findings and analysis of **Customer Focus**

Chapter 9E

Findings and analysis of **Focus Practitioners**

Chapter 10

Development of the **final model** and discussions

Conclusions

Chapter 11

Conclusions and practical application of the conceptual model

3.0 Chapter introduction

Building on from chapters one and two, this third chapter further explores the section, context and the purpose of the research, by investigating in various developments and concepts of quality, service quality and quality management.

Therefore, the aim of this chapter is to understand the concept of quality and its developments during the last few decades, especially investigating the development of the understanding of quality and the definitions associated with quality management. This chapter also provides understanding and analysis of how definitions of quality have changed and developed from product and process quality to focus quality around customer needs and expectations.

Concepts associated with quality, such as Total Quality Management (TQM) as well as barriers to quality implementation, have also been discussed to provide a wider understanding of this area, with a view to obtaining a greater understanding of the context of the research.

3.1 Service quality and concepts

A review of several journal articles revealed that early research efforts were centred on defining and evaluating the quality of tangible and physical goods (*products*) as opposed to intangible goods *(services)*. Many researchers over the years have proposed different definitions of quality and there is apparently no obvious consensus in this area. For example, Crosby (1979: p 37), defined quality of goods as, '*the conformance to requirements whereby the extent to which goods meet prearranged values was the measure of quality'.* This definition assumes that the term quality is a pre-arranged and pre-defined static objective. However, Juran (1974: p 14), on the contrary, defined quality as the '*fitness for use*', incorporating the continuous aspects and the emerging nature of the concept.

The quality literature then developed into more functional and practical based quality definitions. For example, Gavin (1983) argued that quality can be measured by counting the incidence of internal failures, those observed before a product left the factory, and external failures, those incurred after the unit had been installed. Assuming the term 'failure' refers to the mismatch of requirements (Crosby 1979), these measurements will once again assume quality as at least a static process. In support of the on-going aspect of quality, as well as the important role that customers play in the process of defining quality, Grönroos (1984: p37) defined service quality as '*the outcome of an evaluation process, where a consumer compares his expectations with service they perceive they received'.* This definition assumes that quality is an on-going and dynamic process and varies depending on the customer needs and wants. Evans and Lindsay (2005) highlighted that quality comprises of two aspects: quality control and quality assurance. Quality is an attribute of a product or a service. A product is something produced and tangible and a service is something that is performed, such as a training workshop. Therefore, the process is the set of activities that is performed to produce the product or to perform the service. According to Evans and Lindsay (2005), quality assurance is therefore associated with this process of producing the product or performing the service. Processes therefore have the advantage of being able to replicate future production activities. Quality Control, on the other hand, is the method and process used to compare product or service quality requirements and acceptable standards, and if applicable, where non-conformances are identified and rectified. Therefore, without Quality Assurance processes and Quality Control standards, organisations would not be able to deliver quality. This argument combines those

definitions presented by both Crosby (1979) and Juran (1974). Quality, therefore, is activities that require the involvement of everyone within the organisation (Deming, 1993) and requires them to understand and implement the processes to ensure the products (and services) both conform to requirements and are fit for purpose.

3.2 Quality and customer relationships

Winder and Judd, (1996) argued quality is a process of building and sustaining relationships that provide continuity, longevity and maturity in an organisation, and pointed out that the relationship aspect has always been an integral part of the philosophies of Deming (1993), Covey (1993) and Senge et al, (1994). For example, Deming (1993) described that people are born with a need for relationships with other people and that it is important to maintain such relationships within the organisation, and this can be used to build key quality foundations. Deming (1993) also highlighted the importance of interdependent components working together to achieve overall quality, and that when the need for communication and co-operation increases, interdependence between components also increases. Covey (1993) supported Deming's argument by highlighting the importance of building relationships of trust which will provide the foundation for empowerment and alignment within the organisation. Covey (1993) also stated that these informal relationships act as the foundation for empowerment and therefore better understanding of organisational and personal needs. Senge et al., (1994) agreed with both Deming and Convey and argued that the world is interrelated, and therefore the individual relationships enable us to understand the world as a territory, rather than a static snapshot. Senge et al., (1994) further argued that these relationships assist organisations to define and understand quality.

Winder and Judd, (1996) argued that the term quality is a combination of five dimensions; vision & value sharing, interconnectivity and paradigm logic, relationships and systems, measurement, and experience. Winder and Judd, (1996) referred to experience as the ability of the organisation to learn from previous occurrences. They argued that more mature organisations use the experience dimension to build an experience base of core competences, which make the organisation unique. Measurement dimension is where an organisation measures its performances. Winder and Judd, (1996) explained that while experience is one-dimensional, measurement has two dimensions, where an organisation looks not only at whether they achieved their objectives, but how well they have achieved them. Relationships and systems thinking refer to forms of systems, processes or procedures for operation. Well-designed and effective relationships and systems assist in promoting consistency in delivering products or services, because they formalise processes that are repetitive and establish a means of repeating the process on a recurring basis. On the other hand, value sharing and vision refers to the premise that the whole organisation is based on, for example, the understanding that we all need each other and value each other's contributions. And finally, interconnectivity or paradigm logic is the understanding on how different elements within an organisation link together to deliver the final product or service quality.

Therefore understanding of quality requires understanding of these dimensions. Winder and Judd, (1996) further argued that these five dimensions are in line with the studies by Deming (1993), Covey (1993) and Senge et al., (1994). The following table (Winder and Judd, 1996: p 10) summarises these synergies:

The Five Dimensions of Quality Winder and Judd (1996)		Deming (1993)		Covey's (1993) Principle Centred Leadership			Senge et al., (1994)
Description	Building Blocks	APDSA	Profound Knowledge	Interaction	Principle	Action	Discipline
Vision & Value Sharing	Community (Contribution)	Aim		Community	Emotional bank Account	To Live in Harmony	Systems Thinking
Interconnectivity & Paradigm Logic	Interconnection (Empowerment)	Plan	Psychology	Organisation	Alignment	To Leave a Legacy	Mental Models
Relationships & Systems	Connection (Alignment)	Act	Systems Thinking	Management (Team)	Empowerment	To Love	Team Learning
Measurement	Interaction (Trust)	Study	Theory of Knowledge	Interpersonal	Trust	To Learn	Shared Vision
Experience	Action (Confidence)	Do	Variation Theory	Personal	Trustworthy	To Live	Personal Mastery

Diagram 3: Dimensions of quality

As seen from the diagram above, the thinking of the foundations of quality have varied from different thinkers. However, it is imperative that all quality models require participation of the whole community within the organisation and must be driven by management, by either vision and value sharing (Winder and Judd, 1996), aim and plan (Deming, 1993), management and empowerment (Covey, 1993) or systems thinking (Senge et al., 1994).

The multi-dimensional model presented by Winder and Judd, (1996) highlighted the importance of non-linearity of quality and the role relationships play within an organisation in order to accomplish the aim of quality. Winder and Judd, (1996) also argued the importance of the five quality dimensions required to adapt to organisational and environmental dynamics to deliver a consistent level of quality where there is the possibility of seeing quality from different points of view, from different individuals. For example, if a delivery system of the organisation is not responding to the underlying customer dynamics, then there will be unmet customer needs and therefore the aim of quality, which is to build and sustain relationships, will not be realised. This leads to the argument that quality depends on the judgement of an individual and therefore is relative to their own perceptions (Barrington and Olsen, 1987). Quality can be seen in many different ways, including the brand name, passing grade, perfection (or near perfection, Six Sigma), absence of problems, zero defects, acceptable performance and meeting goals as well as meeting requirements (Barrington and Olsen, 1987).

In line with Windor and Judd (1996), Khan et al., (1994), it is argued that the definitions presented by Juran (1974) and Crosby (1979) can be categorised into a producer's view of quality and a customer's view of quality. For example, Khan et al., (1994) argued that conformance to requirements is a producer's view and fit for use as a customer's view. From the customer's perspective, satisfaction after the delivery of the product or service is the ultimate approval of the product (and service)

quality. Therefore, according to Khan et al., (1994) any definition of quality must involve customers, and in simple terms, quality can be defined from a customer's point of view as the conformance of customer's expectations and requirements, regardless of product requirements. On the other hand, a producer's view of quality can be derived from many sources, including organisational, internal processes, rule and regulations, standards set by external organisations and so on. Evans and Lindsay (2005) agreed with Khan et al., (1994) and argued that the quality management process should be able to understand customers as well as organisational views of quality.

3.3 Definitions of quality

These above developments lead to today's widely accepted definitions of quality, where many researchers define it from both an organisational as well as a customer point of view. For example, Angell et al., (2008: p.238) summarised developments as, '*quality is excellence, to quality is value, to quality is conformance to specifications, to most recently, quality is meeting and/or exceeding customers' expectations',* highlighting the importance of having measurability and the continuity of the requirements.

Further, Grönroos (1984) identified that customers' examination of service quality is a consequence of their evaluation of two dimensions: functional quality and technical quality. In support of this argument, Kotler et al., (2003) described quality as a characteristic of the product or service, or the shortage of the product or service and, as such, quality can be divided into two (aforementioned) categories. Kotler et al., (2003), supported by Murgulets et al., (2002), explained that the tangible aspects of the service are attributed to a technical quality of the product. For example, in an educational institution, students expect a good and safe learning environment, access to information and a recognised qualification - these expectations fall into the category of technical quality. On the other hand, the functional quality is basically said to be an intangible expression about the service(s) and it rates how the service is given to the customers. It is mainly focuses on the relationship of the employees and the consumers (or students) during the delivery of the services. The competence level of the support staff, support hours, course knowledge of teaching staff, etc. are key functional quality aspects. Therefore, Kotler et al., (2003), and Murgulets et al., (2002) supported Grönroos's (1984) argument, that quality is a two stage process involving both internal as well as external qualities, and assumes that the quality and management of quality are on-going processes and not simply a conformance to requirements as defined by Crosby (1979).

Grönroos, (1984) also stated that quality is a process of disconfirmation where a customer compares his or her expectations against perceptions to determine whether the product or the service has met, exceeded, or failed to meet these pre-determined expectations. This supports the disconfirmation theory (Locke, 1977), widely supported by Parasuraman et al., (1985) meaning that quality is driven by customer expectations prior to the service encounter, rather than purely determined by the organisation's pre-determined measurements as suggested by Crosby (1979).

In support of Grönroos's (1984) argument that customers drive the quality parameters and benchmarks, Parasuraman (2004) argued that the perceived quality of the service delivery can also be influenced by the alternative services available, therefore supporting the argument that quality is an on-going benchmark and dynamic. For example, Parasuraman (2004: p 6) further stated that '*the perception of the alternative services that are available to customers will affect their view of the services offered. For instance, students who have very limited choice of which university library they*

use may consider the public library to be a good alternative for some services'; therefore suggesting that customers co-create their own quality standards by participation: an argument supported by Brochado (2009) and Angell et al., (2008). Re-visiting Grönroos's (1984) definition of technical and functional dimensions of quality, it can be argued that both of these can be influenced by customers and the availability of alternative services, in contrary to the arguments made by Kotler et al., (2003). Therefore, it is vital that both technical and functional qualities of the service delivery are addressed both internally as well as externally to ensure a full quality delivery of products and services.

3.4 Characteristics of quality

Products (tangible) and services (intangible) require a different approach in defining their quality, as defined by Brochado (2009). Services are behavioural rather than physical or tangible entities and can be described as deeds, acts or performances. Therefore the quality of service, referred to as '*service quality*', requires a different perspective, as opposed to product quality. This argument is in line with the views of Abdullah (2006a) and Parasuraman et al., (1985), where they argued that service quality requires a different approach – as opposed to product quality – mainly because of the nature and distinctive features of services such as its intangibility, inseparability, heterogeneity and perishability. Abdullah (2006d) further stated that these are inherent problems, due to their dynamic and varying nature. For example, something that cannot be smelled, touched, felt, tasted, or heard, compared to goods that can be sensed, is termed as '*intangibility*' (Groth and Dye, 2000). Intangibility is the single most important difference between products and services (Caruana and Albert, 2002), as outlined in an argument supported by Brochado (2009), where she claimed that services are behavioural and therefore both the expected and perceived quality varies from customer to customer. In contrary, Oldfield and Baron, (2000) went further by stating that in many instances even tangible products are embodied with some form of intangible offerings; for example offering post-sales customer support for consumer goods, and vice-versa. Whereas, intangible items, such as education, can be attached to tangible products, such as information leaflets; an argument supported by Groth and Dye (2000) and Caruana and Albert, (2002), thereby disputing Abdullah's (2006d) argument that these are inherent problems for services only.

Unlike intangibility, Groth and Dye (2000) stated that inseparability is the service characteristic where simultaneous production and consumption happen. For example, performance or creation is completed by the service provider at the same time, in partial or full consumption, as the service is taking place. For instance, in an educational environment, the student absorbs the knowledge during the delivery (creation of the service) of the lecture. Therefore, the delivery of the lecture (the service) cannot be separated from the deliverer (the lecturer). Poor service delivery can therefore result in poor service quality (Abdullah, 2006a), this is a distinctive feature for services as explained by Caruana and Albert (2002), for example, tangible product organisations producing the goods available for customer purchase. This means that individuals or organisations involved in services are required to have staff members who are proficient in manufacturing the service (technical knowledge/quality), as well as excellent customer service skills (functional knowledge/quality), which supports Grönroos (1984).

Closely linked with inseparability is the concept of perishability, where the service is unable to be stored, warehoused or inspected (Lamb et al., 2000). For instance, the perishable commodities in educational institutions are actually the delivery of the lectures, students working in groups,

seminars, tutorials as well as the general ambiance of the classroom. Perishability means that customers are usually required to follow a process, such as making an appointment before a service encounter, or having to wait until the service is constructed (Groth and Dye, 2000). As customers interact during the service construction - for example a patient informing the doctor of their symptoms - there is an element of dynamism and tailoring the service to individual customer requirements (Parasuraman, 2004). Brochado (2009) argued that educational establishments now usually store and pre-record lectures to avoid this limitation; however, there is no real alternative to attend and to interact with the lecturer as well as peers at a seminar, an argument supported by Abdullah (2006b).

Groth and Dye, (2000) state that, as a result of the above characteristics – intangibility, inseparability and perishability – the service suffers from the fourth characteristic of *heterogeneity* (or variability) due to the variability in factors such as the mood of the customer or the time and date of the service delivery. This characteristic leads to lack of consistency in service delivery. Lamb, et al., (2000) argued that customers can experience a varying degree of service quality depending on the time of the day they access the service. This argument is supported by Brochado (2009) and Abdullah (2006c), where they experience varying levels of customer expectations and perceptions for the same service, but accessed at different times. As argued by Angell et al., (2008), students are more positive at the beginning of the day and are able to absorb more during a seminar as opposed to attending one during the afternoon, which therefore varies levels of service quality.

Pariseau et al., (1997) and Hewitt et al., (1999) argued that these traditional service limitations, intangibility, variability, perishability and inseparability can be overcome by providing a high quality of service, an argument widely supported by several researchers including Hewitt et al., (1999) and Nitin et al., (2005). Brochado (2009) stated that providing a higher level of service quality will not only increase the loyalty of customers, but also will improve staff productivity and increased customer referrals, an argument supported by Paula (1999) and LeBlanc et al., (1997). For example, currently students are not only looking for a 'qualification' but are also looking for an institution with excellent customer service, good track record, established brand, easy access to locations, excursions and other study support. Therefore, many educational institutions are focusing on delivering Total Quality to their students (Smith et al., 2007; Douglas et al., 2006). The way educational institutions manage these service limitations and improve the overall service delivery are crucial to the overall service quality and customer loyalty (Abdullah, 2006a).

3.5 Quality and changing customer needs

In support of arguments put forward by Grönroos, (1984), what is evident so far is that the term 'quality' is a dynamic and on-going term that involves understanding the changing customer requirements as well as organisational objectives, in line with the Kotler et al., (2003) definition of functional and technical qualities of services. As argued by Parasuraman (2004) and Abdullah (2006a), service quality is something that must be based around customer expectations and their subsequent perceived level of service, supporting the disconfirmation theory and, as argued by Hewitt et al., (1999), that customers play a vital part in the service delivery. Petruzzellis et al., (2006) customer satisfaction must be tested against their expectations on a continuous basis throughout their service encounter to enable organisations to retain their customers, enabling the existence of closer relationships between the level of service quality and customer satisfaction (Eagle and

Brennan, 2007; Hodgkinson and Kelly 2007). Several researchers, including Smith et al., (2007) and Douglas et al., (2006) supported that providing a higher level of overall service quality will enable organisations to retain customers and at the same time improve staff productivity. What is also important and critical in discussions of service quality is its effect on organisational performance and staff satisfaction (Brochado, 2009 and Abduallh, 2006a). Oldefield and Baron, (2000) argued that providing high quality service does not only serve as a basis for competitive advantage but also enables the organisation to differentiate itself from its competitors. It is also important not only to understand the customer needs now, but also to have a strategy to meet their expectations over time, as these are likely to change and develop during the customer encounter, states Pariseau et al., (1997). All of these arguments highlight the importance of understanding customers and how they go about accessing and encountering the service, along with how organisations can involve and understand customers and their interactions during the service delivery (Parasuraman, 2004). The manner in which consumers use services is also important to explore, in order to provide a more meaningful insight into how consumers make their decisions with regard to which services they use, and more importantly how they ultimately judge those services (Lamb et al., 2000).

Lamb et al., (2000) further stated that the service process consists of three distinct phases: pre-purchase, consumption and post-consumption. The pre-purchase phase usually involves the consumer looking for the necessary information about the service that he or she wants to consume. Because of the unique characteristics of services discussed earlier, particularly intangible services, this phase of the process can often be challenging for consumers as they do not know exactly the standard or quality of the service delivered by different providers. As such, consumers tend to depend on recommendations from friends, the service provider's promotions and communications, or from previous experiences, in line with the arguments by Grönroos, (1984) and Parasuraman et al., (1985).They support the use of a disconfirmation paradigm of the process where customers formulate their expectations, against which they compare actual service quality (Abdullah, 2006d). For example, in the educational sector the usage of student profiles, course prospectuses and websites can lead to pre-purchase expectations (Angell et al., 2008). Bitner et al., (1997) supported this view with the suggestion that effective and realistic expectation setting is important in meeting expectations of customers, therefore supporting the idea that it remains the responsibility of organisations to create reasonable expectations in the forms they communicate with their potential customers (Jobber, 2004). Lamb et al., (2000) also highlighted the importance of customer referrals and how such referrals formed the basis of these initial expectations, supporting the arguments of Oldefield and Baron, (2000) and Pariseau et al., (1997). Groth and Dye, (2000) supported this by highlighting the importance of adding physical evidence, such as information leaflets, to overcome intangibility and how such materials can be used to support these initial communications, an argument also supported by Jobber (2004).

Lamb et al., (2000) stated that the consumption phase is often referred to as the moment of truth when the consumer actually interacts with and uses the service from the provider. In line with Grönroos (1984) and Parasuraman et al., (1985), it is often at this stage that the consumer actually evaluates the service received and decides whether it is satisfactory or otherwise, establishing the disconfirmations between the expectations and perceived service quality. Parasuraman et al., (1985) argues that this will lead to satisfaction, dissatisfaction or in many cases an acceptance. Hewitt et al., (1999) and supported by Parasuraman (2004) highlighted the importance of customer involvement in the actual consumption process, giving customers the ability to provide regular and

on-going feedback on the service encounter. Oldefield and Baron, (2000) supported this argument by highlighting the importance of allowing staff members to act as key observers in understanding changing customer needs. Abdullah (2006b) argued that in education these encounters last for a longer period as in many cases the duration of the qualifications is for several years, therefore it is vital to constantly assess and understand changing customer expectations, this is supported by Angell et al., (2008) and Buttle (1996). According to Grönroos, (2007) services can be grouped into two different categories: namely high touch and high tech services on one hand, and discretely and continuously rendered services on the other hand. High touch services are dependent on service staff, continuous participation of the customer and the service staff member during the consumption phase of the service. As argued by Parasuraman (2004), staff participation and involvement in such service is key to a positive service delivery. On the other hand, high tech services are mostly relying on systems, IT and other resources to create offerings like online shopping or telecoms, where the customer interacts with a non-human, such as a computer.

Therefore, it is important to value and to understand these variations and how organisations can balance the service encounters of high-touch and high-tech services (Li et al., 2003), an argument agreed by Abdullah (2006b) as well as Buswell et al., (2003). On the other hand, continuously rendered services, like banking or security monitoring, can be distinguished from discrete services, such as one-off hotels or project-based consulting. Customer interactions with these services are on-going (or one-off) and require a different level of service delivery (Grönroos, 2007). High touch services can also include the participation of customers in the production of the service, as argued by Sahney et al., (2008), as is the case at some educational institutions, restaurants and airlines; whilst high tech services, to a larger degree, involve the use of technologies or automated systems (Landrum et al., 2008). What is also important for high touch services is the participation of the customer during the service delivery, as the customer participation itself can lead to better service delivery and quality of service (Bitner et al., 1997). According to Lamb et al., (2000), the customer consumption phase is an integral part of delivery or service quality and must be used to enhance and improve customer satisfaction. Oldfield and Baron (2000) argued that in people processing services, such as hospitals and educational institutions, which are high personal contact situations, those taking part in the provision of service may often be evaluated by the customer in terms of their technical or customer related skills, personality, consistency of performance and appearance, therefore highlighting the importance of the overall service experience. For instance, attending an induction day at an educational institution, where the customer experience of a service can be expected to influence their post consumption, there is an evaluation of the quality of service to be experienced (Grönroos, 2008). As per Abdullah (2006c), during this process the customer compares expectations with what they perceive they have received.

Finally, the post-purchase phase is concerned with the consumer making judgements about all aspects of the service delivered and received from the provider, and then analysing the overall service standards against relative functional and psychological benefits (Lamb et al.,, 2000). As argued by Parasuraman et al., (1985), customers may conclude that services exceeded their expectations, met their expectations or, in many cases, were below expectations. Groth and Dye (2000) stated that organisations must use these judgments to improve their processes and attitudes towards quality and establish processes to improve areas in which they failed to meet customer expectations. Angell et al., (2008) argued that such feedback must be shared with all key staff members to enhance future service delivery and quality, in line with the findings of Abdullah

(2006d). Teas (1994, 1993a, 1993b) supported these arguments by highlighting the link between customer satisfaction and loyalty, which in turn determined future growth of the organisation. Lamb et al., (2000) suggested that organisations must have systems in place to gather customer feedback and make improvements to enhance the areas in which the organisation failed to meet customer expectations. Therefore, the importance of effectively identifying customer expectations and understanding how these pre-conceived customer expectations are met by the organisations, are critically important to a loyal customer base (Bitner et al., 1997). This argument is supported by Parasuraman et al., (1985) as well as Abdullah (2006a), as key in setting service quality standards.

3.6 Quality and customer satisfaction

In line with Bitner et al., (1997), Blackwell et al., (2006) described customer satisfaction as the extent a product or service can fulfil the expectations of the customers, and therefore identified customer satisfaction is one of the most important requirements for building strong customer relationships. In line with Blackwell et al., (2006), Hansemark and Albinsson (2004) described customer satisfaction as how well the customers are connected with a company and how long they will be with that company. They identified customer relationship management as one of the pre-requisites for customer satisfaction. Hansemark and Albinsson (2004), further described customer relationship management (CRM) as a key ingredient in managing the overall service quality within an organisation and leads to customer satisfaction in line with the arguments put forward by Angell et al., (2008). Payne and Frow (2005) agreed and described customer relationship management as the organisational strategy that considers the demands of individual customers and seeks to gain their trust of the company as a whole, and is not only limited to products and services offered by the organisation. In contrary to this, Özgenera and Iraz (2006) described customer relationship management as activities that are necessary in building and preserving long-term relationships with customers, and explained that the activities of customer relationship management can help to gain customer loyalty by building personal attachments between the customer and the company. As per Abdullah (2006c), this is also true for educational institutions, as satisfied students are likely to undertake further qualifications at the same educational institution, as well as refer their friends and family members to the same institution.

Hansemark and Albinsson, (2004) also linked effective management of customer relationships with customer loyalty and retention, and in effect linking service quality, service features and customer complaint's management as key ingredients of effective customer management. Hansemark and Albinsson, (2004) further emphasised the importance of service features and the importance that companies provide products and service with up to date features to avoid being overtaken by their competitors. Companies with good customer complaint's management processes are likely to retain customers, simply as a result of providing unhappy customers an opportunity to share their complaints. Payne and Frow, (2005) agreed and identified good customer complaint handling as a key ingredient of any customer relationship management strategy. Nonetheless all the researchers agreed that effective customer relationship management is essential in establishing customer loyalty, which in turn enables organisations to manage their overall service quality, also agreed with by Lamb et al., (2000).

Parasuraman et al., (1993) also agreed with the above, by stating that good customer relationships are determined by the actual quality of the relationship and that the quality of the relationship

depends on the gap of customers' expectations and the service they get from the company. Hansemark and Albinsson (2004) agreed with this argument by stating that the relationship quality is the customer's perception of the degree to which their expectations of the relationship are fulfilled by the company, encouraging the overall strength of the relationship. According to Parasuraman et al., (1993), the most frequent constructs used to measure relationship quality involve customer satisfaction, trust, and commitment, and that the relationship outcome aspect of customer relationships determines what the relationship between a customer and a company leads to. Özgenera and Iraz (2006) stated that if the relationship outcome has lead to customer loyalty, the company has achieved its objective, of delivering an overall service quality.

It is evident that the importance of understanding customer expectations and how organisations can meet these customer requirements is key to providing an overall service quality. Over the past two decades, researchers have devoted considerable time and effort to develop models, tools and methods that make the measurement of perceived service quality possible (Yeo, 2008). This is because the provision and delivery of superior service quality is very dependent upon the possibility of first measuring it (Davidow and Uttal, 1989). Lassar et al., (2000) and Yavas and Yasin, (2001) stated that the importance of service quality cannot be overemphasised as it provides a compelling yardstick for determining and influencing organisational performance against customer expectations and has, hence, captured the attention of both academics and practitioners alike. Parasuraman et al., (1985) argued that in the absence, and lack, of objective measures, a suitable approach in evaluating an organisation's service quality levels is to capture and assess it from a consumer perspective rather than from the company's point of view.

As per Bitner et al.,(1997), the debate with regards to the most effective and efficient measurement model ranges with different writers propounding and emphasising the superiority of their respective measurement instruments. For example, one description of service quality has been defined as the gap emanating from the hope a customer had prior to the service encounter and the view of the service received, supporting Grönroos (1984) and Locke (1977). Parasuraman et al., (1991), in support of Grönroos (1984) and Locke (1977),argued that the gap definition is related to the 'disconfirmation' theory which stipulates that service quality is the mismatch between consumer expectations before using the service and their resulting views after the service experience. Petruzzellis et al., (2006) agreed with the disconfirmation, but suggested that the perceived quality is the most important aspect and highlighted that customers are satisfied when the service fits their expectations, or very satisfied when the service is beyond their expectations. In contrast to this view, Zeithaml and Bitner, (2003) stated that academic and practical debates, relative to the measurement of service provided by businesses to customers, usually revolve around the issue of service superiority and from a customer's point of view. Service quality is about the customer judgement about an organisation's total superiority and excellence, and therefore there is not necessarily a simple gap between expectations and actual service delivery. Studies conducted by Cronin and Taylor (1992) and Abdullah (2006b) supported this argument, and opted for performance-only (perceived-only) measurement.

Ahmed and Rafiq, (1998) took a more organisational-based view where they stipulated that service quality is concerned with understanding the customers, then developing services in order to best match, deliver, and satisfy the customer needs. Many authors including Parasuraman et al., (1985) support this more generic view; however, it fails to provide a distinctive tool in measuring the

quality. On the other hand, from the organisation's point of view, service quality is considered to be a measurement of how the level of service produced fits with what customers expect (DiDomenico and Bonici, 1996). This supports the arguments put forward by Sahney et al., (2008), supporting a quality functional deployment framework, as well as Trivellas and Dargenidou's (2009) argument of employee job satisfaction and its link to better service quality. It is widely believed that there is a strong association between service quality, customer satisfaction, loyalty and ultimately organisational profitability (Cronin and Taylor, 1992; Parasuraman et al., 1994; Teas, 1994, Bloemer and Kasper, 1995; Buttle, 1996; Caruana and Albert, 2002; McDougall and Levesque, 2000). Some researchers have gone as far as to state that superior service quality can be a basis for competitive differentiation and advantage (Buzzell and Gale 1998). For example, Abdullah (2006c) supported this argument by stating that higher educational institutions are being driven toward commercial competition imposed by economic forces, resulting from the development of global education markets and the reduction of government funds. Tertiary institutions have to be concerned with not only what the society values in the skills and abilities of their graduates, but also how their students feel about their educational experience, leading to student satisfaction and a better service quality. Service quality therefore is not only limited to meeting requirements, but also exceeding customer expectations and identifying future trends. Bell and Zamke, (1992) refer to many educational establishments; as students tend to refer good experiences to their peers, which can potentially attract future students. Further, a continuous level of quality service delivery can lead to securing longer term corporate sponsorships for students. Their research in 1992 found that highly rated service quality providers have high customer retention rates of over 50%, enjoy lower marketing expenditures of at least 20%, have sales volumes of up to 12%, as well as higher profit margins of up to 17%. These figures link service quality with organisational profitability. These insightful observations are consistent with the views of Heskett et al., (1990) and Magi and Julander (1996), that high levels of service can result in positive word of mouth communications, which arguably is the most trusted and effective medium that endears brands to many potential and existing customers. This ultimately leads to high customer loyalty rates, which are also consistent with arguments of Lamb et al., (2000) and Grönroos (1984).

3.7 Total Quality Management

Arguments of service quality in many instances (Sahney et al., 2008 and Eagle and Bernan, 2007) are linked to Total Quality Management (TQM) principles. Eagle and Benan (2007) argue that the application of TQM principles – which are manufacturing orientated - make services more relevant and responsive. Studies conducted by Hodgkinson and Kelly (2007), as well as Venkatraman (2007), support this argument. Venkatraman (2007) applied the TQM principles of continuous improvement to improve service quality in the higher education sector. TQM is the process of managing people in a way that encourages them to work harder, because they are more motivated, and enables them to work smarter, because they are more skilled and better informed (Evans and Lindsay, 2005). Evans and Lindsay, (2005) further suggested that any approach towards total quality must be based on three fundamental principles; a focus of customers and stakeholder, participation and teamwork by everyone in the organisation, and a process focus, supported by continuous improvement and learning. Venkatraman (2007) agreed with this, but also suggested that a valid TQM framework should include six core elements: leadership and quality culture; continuous improvement and innovation in processes; employee participation and development; fast response and management of information; customer-driven quality; and partnership development, both internally and

externally. Both Evans and Lindsay, (2005) and Venkatrama (2007), are in agreement with the studies carried out by Petruzzellis et al., (2006) and Hodgkinson and Kelly (2007), where both of these studies identified the importance of continuous assessment of quality measurement and improvement as a key ingredient to maintaining a consistent and customer-focused service quality management approach. Evans and Lindsay, (2005) supported all the above, by categorising key elements of TQM into four categories: customer focus and employee involvement as core elements; process management, quality assurance, quality control and statistical process control as building blocks; teams, root cause problem solving, empowerment and Kaizen as multipliers and commitment to change; and communication, leadership, training and long term views as pre-conditions. Studies carried out by Ahmed and Rafiq, (1998) and Buzzell and Gale (1998) also argued for the importance of organisational involvement in quality improvement and the important role that staff play in the delivery of service quality. Evans and Lindsay, (2005) suggested that Total Quality (TQ) is where everyone in the organisation is taking responsibility for enhancing the customer focus by enhanced productivity and efficiency, and that TQ is meaningless if it is not customer focused. TQM brings together customer requirements and matches them with technical requirements (such as the process of Quality Function Deployment - QFD), which enable organisations to manufacture the products, or services, that satisfy customer needs and expectations - an argument supported by Sahney et al., (2008). Eagle and Brennan, (2007) identified delighting the customer, people-based management, continuous improvement and management by fact as the key principles of the TQM process, supporting an organisational approach towards management. Even though many of the principles are borrowed from manufacturing and are tangible products, these principles are also applicable to service or intangible organisations (Venkatraman, 2007).

Eagle and Brennan, (2007) further argued that the organisations can deliver a higher level of quality to customers without necessarily increasing additional costs, agreeing with Crosby's (1979) remark that 'quality is free', and Juran's (1974) original poor quality cost principle, suggesting that organisations can deliver a higher level of quality at the same or lower price of delivering poor quality. Organisations can save the costs of poor quality by not having to replace the products, lost customers as well as more importantly losing competitive advantage, according to Buzzell and Gale (1998). In contrast to these arguments, Venkatraman (2007) highlighted the massive expenditure incurred by companies in their efforts to implement quality management principles and that organisations must learn from their mistakes. Venkatraman (2007) also argued that quality must be an integral part of day to day service delivery and must not be seen as an added activity, agreeing with Evans and Lindsey (2005) and Abdullah (2006a). Evans and Lindsay, (2005), however, disagreed with Juran's (1974) view that quality is free and described the cost of quality as the money spent beyond what it would cost to build a product, or deliver a service, right the first time.

Evans and Lindsay (2005) classified cost of quality into three categories: prevention costs, appraisal costs and failures. Prevention costs refer to money spent on establishing methods and procedures, for example, the training of workers and planning for quality. According to Evans and Lindsay (2005), prevention costs are money usually spent before the product or service is actually built. Appraisal costs refer to money spent to review completed products and services against the pre-set requirements, such as inspections, testing and reviews. Usually appraisal costs incur once the product is produced, but before it is delivered to customers. Finally, failure costs are any costs associated with product failures, such as product defects, damaged goods, delays in product delivery

and so on. According to Evans and Lindsay (2005), failure costs can be grouped into two categories: internal failure costs and external failure costs. Internal failure costs are usually incurred prior to the shipment of the product to the customer, this includes cost to perform rework and also the costs which occur when rework inadvertently generates extra modifications that must be mitigated prior to the product delivery. External Failure Costs are associated with the defects found after the shipment of the product, examples of external failure costs are product return and replacement, complaint resolution, helpline support and so on. However, referring back to Juran's (1974) argument that 'quality is free', can therefore be linked to minimising failure costs, by having effective quality control and quality assurance processes. Evans and Lindsay, (2005) argued that the quality function within the organisation must attempt to reduce the cost of quality by increasing the prevention and the appraisal costs in order to reduce the failure costs rather than the increase in the prevention and appraisal costs. This means that by achieving these savings in failure costs, organisations can potentially save money, supporting Juran's (1974) arguments.

3.8 Barriers to quality

Based on the above observations, it is not surprising that excellence in quality of service has become an imperative and vital element of service delivery, particularly in most mature markets where competition is increasingly becoming a zero-sum game (Abdullah, 2006c). Hence, the only way organisations can be heard in a cluttered market is to excel at quality customer service by continuously measuring, improving and re-visiting service quality on a regular basis (Eagle and Brennan, 2007). In order to maintain a good level of service quality, all organisations must carry out regular service audits; these service audits must be reliable and valid in order to be able to make effective decisions and continually improve the level of service quality (Ruby 1998; Buttle 1995; Asubonteng et al., 1996; Carrillat et al., 2007). It is also important to identify barriers in implementing quality standards within an organisation. According to Venkatraman (2007), the common barriers of implementation include lack of knowledge of the importance of quality in operations; poor leadership and lack of understanding of the importance of service quality at senior management level; middle management not understanding the implementation of quality processes and policies; employee resistance to change and the lack of funds and resources.

This argument is broadly in line with Crosby's (1979) description, where he categorised contributors to poor quality as a lack of involvement by management and lack of knowledge about quality. According to Crosby's (1979) studies, the former involves areas such as: management's unwillingness to accept full responsibility for all defects; failure to determine the cost associated with defects; failure to initiate a programme to manage defects; lack of emphasis on processes and measurement; failure to enforce standards; and failure to reward people for following processes. On the other hand, lack of knowledge about quality includes areas such as a lack of a quality vocabulary, which makes it difficult to communicate quality problems and objectives, lack of knowledge about the principles of quality, no categorisation scheme for defects, no information on the occurrences of defects by type, by frequency and by location, unknown defect expectation rates for new products, defect prone processes unknown or unidentified, defect prone products unknown or unidentified, an economical means for identifying defects unknown, and finally, proven quality solutions are unknown and unused. Eagle and Brennan, (2007) argue that organisations can overcome these barriers by designing products and services around changing customer needs and expectations, an argument supported by Hodgkinson and Kelly (2007), where they highlighted the importance of

identifying priorities in need of improvement in terms of quality practices. Sahney et al., (2008) suggested the importance of involving customers in the quality process, as they are an integral part of the actual service itself. Bitner et al., (1997) supported this argument by stating, 'This is true whether the customer is an end customer or not. For example, consumers of health care, education, personal care or legal services, or a businesses purchasing maintenance, insurance, computer consulting or training services. In all of these examples, customers themselves participate at some level in creating the service and ensuring their own satisfaction. Petruzzellis et al., (2006) supported this by arguing the importance of showing customers that you care about them by doing everything within the organisation's power to meet their expectations. Petruzzellis et al., (2006) further argued that in a service economy, customer satisfaction, service quality and organisational performance are key success factors, and are therefore in agreement with Cronin and Taylor, (1992); Parasuraman et al., (1994).

Further arguments made from Grönroos (2008) claim that the marketing activities of the service provider, communication and past experiences perceived by the customer, have effect on the expectations of the customer and have a great impact on the service expected, which is an argument also supported by Jobber (2004) and Lamb et al., (2000). Grönroos (2008) further supports the empowerment of frontline staff, suggesting that more interaction between them and the customers can be used as a time of opportunity to create a relationship, to market the organisation's services, and to gather valuable data which can then be used to enhance the quality of service, in line with the findings of Trivellas and Dargenidou (2009). For example, a library can monitor busy and quiet periods to arrange staff schedules. It was also stated that for good quality service to be provided by a team they need inter-relational and functional collaboration and inter-organisational partnership to ensure successful delivery which satisfies the customers (Grönroos, 1994; Yeo, 2008). These arguments are in line with Deming's (1993) principles of quality, where he argued that everyone is responsible for quality. However senior management must emphasise and initiate quality improvement and then obtain the implementation buy-in from their employees, an argument also supported by Juran (1974) and Crosby (1979).

According to Evans and Lindsay (2005) the following three quality principles must be in place within any organisation for quality to happen. Firstly, management is responsible for quality, and as such quality cannot be delegated effectively unless management play a vital role and a wider understanding of the quality within the organisation. Further, management must take the responsibility in putting processes in place to monitor respective quality assurance and quality control processes within the organisation. This is in line with Covey's (1993) principle for a centred leadership model for quality management, where Covey (1993) further argues that the process of building relationships of trust provides a foundation for empowerment and alignment within an organisation. This is an important element of management taking the responsibility for quality, however ensuring that workers also implement the standards and processes. Thirdly, producers must use effective quality control, which means that workers involved in the production of products, and services, must actively be involved in the establishment of their own standards and procedures. Quality is a journey, not a destination, meaning the objective of the quality must be focused on continuous improvement with the view to developing standards and processes, which will eventually satisfy customers. In support of Evans and Lindsay's (2005) description above, Khan et al., (1994) identified three actions that the management must take to ensure that quality happens within an organisation as: define quality, control quality and assure quality. This argument is in line with Senge

et al., (1994), where individuals within organisations work together when their functions are interrelated and interdependent, and when individuals understand how their own activities relate to others within the organisation. Khan et al., (1994) further argued the importance of clearly defining the quality function within an organisation, and state that the quality function is not mandatory to make quality happens, but adequate attention and clearly defined objectives are the catalyst for effective quality function.

3.9 Chapter summary

This chapter discussed the development of thinking and understanding of the concept of quality and quality management throughout the years, and how the developments are focused on customer satisfaction and retention.

Further, this chapter also looked at how different thinkers as well as academics understood the building blocks of quality management within an organisation. Specific attention was given to the intangible, or service quality and the respective dimensions associated with services.

This chapter also discussed how the quality processes must be focused on meeting customer expectations and that it remains the responsibility of everyone within any organisation to be responsible for the delivery of the quality. Aspects of TQM were also discussed with a view of the whole customer experience and how organisational strategy is driven by the quality processes and quality function deployment.

Finally, this chapter looked at components of service quality as well as barriers to quality management and how these barriers may be overcome by effective management of quality and employee buy-in.

Chapter 4:

Literature Review (Service quality models)

Context and the purpose of the research

Chapter 1

Introduction and the context of the research

Chapter 2

Independent Education Sector in the UK

Chapter 3

Literature Review – Service Quality and Concepts

Chapter 4

Literature Review – Service Quality Models

Methodology and the initial conceptual model

Chapter 5

Research Methodology

Chapter 6

Research Methods – Application of the research

Chapter 7

The measurement instrument

Data analysis and the Service Quality Model

Chapter 8

Analysis of distribution, reliability and validity

Chapter 9

Chapter 9A

Findings and analysis of **Flexible**

Chapter 9B

Findings and analysis of **Market Driven**

Chapter 9C

Findings and analysis of **Assurance**

Chapter 9D

Findings and analysis of **Customer Focus**

Chapter 9E

Findings and analysis of **Focus Practitioners**

Chapter 10

Development of the **final model** and discussions

Conclusions

Chapter 11

Conclusions and practical application of the conceptual model

4.0 Chapter introduction

The final chapter of section one will look at various models of measuring service quality, with specific attention given to their application within the educational sector.

This chapter therefore brings in the contextual understanding from the previous three chapters and integrates the general concepts of quality as related to private colleges in UK, by looking at specific service quality models and their applicability within the education sector in general.

Further, this chapter also looks in detail at one of the key disconfirmation based service quality models in use, SERVQUAL, and its application, along with a critical analysis of the model's strengths and weaknesses, with a view to further analysing how this initial model further developed in to performance-only models, which are widely used today.

Finally, this chapter will specifically look at applications of service models by previous doctoral studies in this field, and how these previous doctoral studies, link with this research.

4.1 Models of service quality

It is widely agreed among researchers and practitioners alike, that service quality can be defined as the mismatches that exist prior to the consumers' expectations of the service and the resulting perceptions they hold after experiencing the service (Parasuraman et al., 1988; Cronin and Taylor, 1992; Abdullah, 2006a).

Angell et al., (2008: p 238) states, '*practitioners and academics alike have found that providing a high level of service quality can secure the potential to earn higher market share, improved profitability. Approaches to measuring service quality have also gradually evolved around the disconfirmation paradigm*.' The disconfirmation paradigm is based on the difference between the service receiver's expectations prior to the service encounter, and their perception of how it was delivered on its completed delivery (Angell et al., 2008).

The disconfirmation paradigm has been conceptualised and used as the cognitive comparison between the consumer's pre-purchase standard i.e., expectations, and what they actually received i.e., perceived level of service. The disconfirmation paradigm has been in academic literature for several years for example, early satisfaction research (Locke, 1977) and recent research in service quality (Jiang et al., 2000; Parasuraman et al., 1988) measured disconfirmation as the difference between a standard (expectations) and the received levels of each attribute.

Further, the disconfirmation paradigm has, over the years, evolved into the 'disconfirmation theory' propounded by Parasuraman et al., (1988), while others argue that it is '*derived from a comparison of performance with ideal standards*' (Teas, 1993b: p 34) or observations of performance-only (Cronin and Taylor, 1992).

Disconfirmation theory has had a long history in areas such as job satisfaction (Locke, 1977), cognitive psychology (Anderson, 1981), and self-image congruence (Sirgy et al., 1997). Therefore, the disconfirmation theory has been proven to be an effective tool in measuring set standards against the actual delivery. However, Cronin and Taylor, (1992) and Abdullah (2006a) developed performance-only modules and argued that those customers' assessments of continuously provided

services may depend solely on performance; thereby suggesting that performance-based measures explain more variance in an overall measure of service quality. Modules such as SERVPERF (performance only) and HedPERF (performance only) tools only require customers to provide one set of feedback based on the actual level of service delivery. Thereby providing an alternative approach to the 'disconfirmation theory' (Abdullah, 2006a and 2006b; Cronin and Taylor, 1992; Angell et al., 2008).

Research carried out by both Cronin and Taylor, (1992), as well as Abdulla (2006a, 2006b, 2006c and 2006d), confirms that performance-only models performed better that the disconfirmation based, SERVQUAL model, therefore, supporting the argument that the service quality is only based on the performance alone (Boulding et al., 1993). However, the principles of the gap model, which is a term widely used to describe various disconfirmations between different factors associated with the overall service quality, remain true for both of these concept (Brochado, 2009). For example, both HedPERF as well as SERVPERF models use a gap model, by using performance-only as the measurement concept.

A review of the literature reveals five key service quality models currently being used to measure service quality within the educational sector. They are as follows;

- HEdPERF - Higher education performance (Abdullah,2006a)
- SERVQUAL - Service quality (Parasuraman et al., 1985)
- SERVPERF - Service performance (Cronin and Taylor, 1992)
- Weighted SERVPERF - Weighted service performance (Cronin and Taylor, 1992)
- Weighted SERVQUAL - Weighted service quality (Parasuraman et al., 1991).

Even though these models have not been specifically developed, apart from HEdPERF, for the educational sectors, various researches have been carried out around the world using these models within educational institutions (Assaf et al.,2008; Gallifa and Batalle, 2010; Kiran, 2010; Sultan and Wong, 2010; Nejati and Nejati, 2008; Jamali and Tooranloo, 2009; Banwet and Datta, 2003; Sahney et al., 2004 & 2008; Kwan and Ng, 1999; Chen et al., 2006; Prugsamatz et al., 2006).

SERVPERF, Weighted SERVPERF, SERVQUAL and Weighted SERVQUAL use tangibles, reliability, responsiveness, assurance and empathy as service quality dimensions, whereas HEdPERF uses non-academic aspects, academic aspects, reputation and programme issues as its dimensions, whilst adopting the gap model to identify the areas of service quality improvements (Abduallah, 2006a; Parasuraman et al., 1985; Cronin and Taylor, 1992).

These concepts were developed on the basis of three underlying principles (Parasuraman et al., 1985 and Asubonteng et al., 1996); service quality is more difficult for the consumer to evaluate than tangible goods quality, service quality perceptions result from a comparison of consumer expectations with actual service performance, and finally service quality evaluations are not made solely on the outcome of service as they also involve evaluations of the process of service delivery. Therefore, the service quality models assume these principles, and are developed by taking these aspects as cornerstones of the models.

Brochado, (2009: p 178), compared the different aspects of the above models as follows:

Instrument	Service quality concept	Number of items	Service quality dimensions
SERVQUAL (Parasuraman et al., 1988)	Perceptions' of performance – expectations	22 x 2	Tangibles, reliability, responsiveness, Assurance, empathy
SERVPERF (Cronin and Taylor, 1992)	Perceptions' of performance	22	
Weighted SERVQUAL (Parasuraman et al., 1991)	Dimension's importance x (Perceptions' of performance – expectations)	22 x 2 + 5	
Weighted SERVPERF (Cronin and Taylor, 1992)	Dimension's importance x perceptions' of performance	22 x 2 + 5	
HEdPERF (Abdullah, 2006a)	Perceptions of performance	41	Non-academic aspects, academic aspects, reputation, access, programmes issues

Table 10: Service quality measurement models and their dimensions

As seen from the table, the first four models used the same five service quality dimensions, with the SERVQUAL model using disconfirmation theory and SERVPERF choosing performance-only measurement. On the other hand, HEdPERF, which a model developed specifically for the measurement of service quality within the higher education sector, used an amended five dimensions, which are more specific to education sectors. It is however notable that the total numbers of items in the measurement scales were in excess of 40, for all instruments apart from SERVPERF. The validity and the reliability of these models have been tested by various researchers using a variety of statistical benchmarks including Cronbach's coefficient alpha as well correlation coefficient (Aldridge and Rowley, 1998; Angell et al., 2008; Oldfield and Baron, 2000; Galloway, 1998; Cuthbert, 1996a; Clarke et al., 2007). Even though the studies mentioned before, used these models to measure service quality at a variety of state funded higher educational institutions, an extensive survey by the researcher found a significant lack of testing of these models within the private educational sector in the UK. Therefore, the researcher subsequently looked at other service quality models and their use within the education sector.

Seth et al., (2005) carried out an extensive analysis of the available service quality tools which incorporate and analyse the following service models developed from the early 1990s; Technical and functional quality model (Grönroos, 1984), GAP model (Parasuraman et al., 1985), Attribute service

quality model (Haywood-Farmer, 1988), Synthesised model of service quality (Brogowicz et al., 1990), Performance only model (Cronin and Taylor, 1992), Ideal value model of service quality (Mattsson, 1992), Evaluated performance and normed quality model (Teas, 1993a), IT alignment model (Berkley and Gupta, 1994), Attribute and overall affect model (Dabholkar, 1996), Model of perceived service quality and satisfaction (Spreng and Mackoy, 1996), PCP attribute model (Philip and Hazlett, 1997), Retail service quality and perceived value model (Sweeney et al., 1997), Service quality, customer value and customer satisfaction model (Oh, 1999), Antecedents and mediator model (Dabholkar et al., 2000), Internal service quality model (Frost and Kumar, 2000), Internal service quality DEA model (Soteriou and Stavrinides, 2000), Internet banking model (Broderick and Vachirapornpuk, 2002), IT-based model (Zhu et al., 2002) and Model of e-service quality (Santos, 2003).

Out of the variety of models analysed, Nitin et al., (2005) concluded that the SERVQUAL model is the most used and criticised model of all the above and its validly and reliability has been tested and proven across a wide range of sectors. Thus concluding that the SERVQUAL instrument is one of the most reliable and valid tools to measure the service quality.

In addition, Francois et al., (2007), conducted research comparing SERVQUAL with a similar but more performance oriented SERVPERF framework and found that both instruments are effective in measuring service quality and concluded that SERVQUAL, which measures both expected and perceived level, hence uses disconfirmation theory, when compared to SERVPERF, which mainly measures expectations, i.e. performance only, is more time consuming and biased. For example, at a typical higher educational institution, students take a mixture of qualifications using various study modes, including full time, part time, blended learning and distance learning, as well as different course durations, including short weekend qualifications and four to five year degree programmes. These differences make the measurement of service quality a complex and dynamic process. For example, the service quality models discussed so far are effective in providing a snap shot of service quality at any given time. However, what is important is the service quality delivery during the full student experience; therefore a longitudinal approach is required in approaching service quality measures, rather than a cross-sectional based approach (Aldridge and Rowley, 1998; Angell et al., 2008).

An empirical study carried out by Gallifa and Batalle (2010), involving a private multi campus Spanish University, identified that the student perceptions worsened because of lack of improvement over time; therefore supporting Angell et al's., (2008) suggestion of the need for a longitudinal approach to service quality. Other personal factors such as the age, ethnicity, gender, disability, disability type, residence and mode of study can also influence both expected and perceived quality of service (Aldridge and Rowley, 1998; Angell et al., 2008). Therefore, an effective service quality model should aim to find correlations that the service delivery has with these factors over a period of time (Aldridge and Rowley, 1998).

Further, Oldfield and Baron (2000) argue that an effective service quality is made up of three significant dimensions; service processes (flexible processes and avoids rigidity), interpersonal factors of front line staff members, and physical evidence. This study also reveals that the students' evaluation of service quality varies depending upon the length of time the students have been on the course, which supports Angell et al's., (2008) argument of the need for continuous and

longitudinal measurement of expectations and perceptions. Therefore, an effective service quality measurement should be able to measure service quality trends over a period of time and identify gaps, where applicable (ibid).

According to Brady and Cronin, (2001), the developments in the measurement of service quality models was led by two schools of thought, the Nordic School, which is generally linked with Europe and Scandinavia, and the American School. The Nordic School assumes a simpler model of assessing service quality by dividing into two areas, technical and functional quality, whereas the American School of thought focused on more a diverse range of dimensions, as discussed above, driven by studies of Parasuraman et al., (1985). However, this research adapts a simpler and broader categorisation of models proposed by Seth et al., (2004). For example, Seth et al., (2004) divided service quality models into two broader categories: gap model and all other models. For example, and as discussed before, the gap based service quality models have been led by the developments of SERVQUAL (Parasuraman et al., 1985), which identified five service quality dimensions as indicators of service quality. SERVQUAL model and its dimensions influenced several other models including; Synthesized model of service quality (Brogowicz et al., 1990), Performance Only Model/SERVPERF (Cronin and Taylor, 1992), Normed quality and evaluated performance model (Teas, 1993b), Retail service quality and perceived value model (Sweeny et al., 1997), Antecedent mediator model (Dabholkar et al., 2000) and higher education performance model (Abdullah, 2006a). All these models have used adapted versions of SERVQUAL dimensions as well as elements of the gap model to measure and analyse service quality performance. As identified by Seth et al., (2004), gap models have proven more valid and reliable in measuring service quality by a variety of studies over time. Therefore, the gap model leads the way in terms of measurement of service quality in comparison to other models. The development of the SERVQUAL model (Parasuraman et al., 1985) has been instrumental in the development of gap based models. However, before looking at the SERVQUAL model in detail, the section below looks at some of the key concepts that did not follow the gap based approach. This study identified three key models in the area as follows, as these three models offer alternative views to the gap model.

Grönroos (1984) – Technical and functional quality model

One of the early service quality concepts that adopted disconfirmation theory was developed by Grönroos (1984). Grönroos's technical and functional quality model was developed on the underlying principle where, companies must understand customer perceptions of service quality, in order to stay competitive and grow. With this principle in mind, Grönroos's model of technical and functional quality then linked to the image of the company.

Grönroos's (1984) model is also called a two-factor Nordic service quality model, and offers an alternative argument for gap based theories. For example, the Nordic service quality models are based on the principle that customer satisfaction equals customer knowledge minus their prospection (Buswell and Williams, 2003).

In support of the Nordic theory, Grönroos (1990: pp 48) viewed that services are not coincident and create a difference between whether or not the services are received by the individuals or organisations. In his support he states, '*The services are complicated circumstances and suggest that the service must be concrete, to get rid of as much risk as possible from actual customer's minds when choosing a service provider*'. Therefore, in accordance to the Nordic model, total quality of a

service is a combination of three various components; corporate image, technical quality and functional quality (Buswell and Williams, 2003).

According to Grönroos (1984), technical quality refers to what consumers actually receive as a result of their interaction with the company, and on the other hand functional quality refers to how customers receive the respective technical outcomes. Further, as both technical and functional quality are important to customers, the delivery of these will lead to the company's image as providers of better service quality, which will ultimately lead to competitive advantage.

Most importantly, Grönroos's two factor Nordic models didn't specify service quality dimensions, but instead simply defined those as the most important aspects of service delivery. The other weaknesses of this model include that a) the dimensions of technical and functional quality do not necessarily describe all the elements of a service adequately, b) the model assumes that neither of the two dimensions should enjoy preference over the other, therefore it is impossible to prioritise the organisational objectives and develop specific action plans to manage and improve service quality, and c) because the model is based primarily on services in which human interaction takes place, it will not be able to adequately accommodate services in which physical and technological elements play an important role, such as in the educational sector (Brady and Cronin, 2001).

Haywood-Farmer (1988) - Attribute service quality model

Haywood-Farmer (1988), in developing the attribute service quality model, divided service dimensions into three areas as; professional judgement, physical facilities and processes and behavioural aspects. These areas were then further broken down into specific measures, and prioritised on the basis of various sectors. For example, Haywood-Farmer, categorised various sectors on the basis of their level of customer interaction and customisation of services. Further, the attribute service quality model assumes that a service organisation has high quality if it meets customer preferences and expectations consistently, throughout their service interactions.

Haywood-Farmer further suggested that companies, depending on their sector of operation, must adopted three key service dimensions to meet their customer expectations. For example, services with labour intensity is low, organisations must focus physical facilities to compensate with low labour interactions. Therefore, the model highlights that too much emphasis on any one of the three service dimensions above, while letting others be excluded may lead to negative impact on customers' perceptions. For example, if a service organisation emphasises heavily on procedure, customers are likely to perceive that the organisation is rigid and inflexible. However, the model's adaptability and variability of different business scenarios can be questioned, as the model does not offer clear interpretation of factors that can affect customer satisfaction (Seth et al., 2005).

The final model that comprises the non-gap based model is developed my Mattsson (1992).

Mattsson (1992) – Ideal value model of service quality

Mattsson (1992) defined service quality in terms of customer value outcome i.e. ideal standard and experienced outcome, and measured against attitude level. Further, the model categorised value and service experience into experienced based, ideal, minimum tolerable and desirable. This value based model further suggests that the use of a perceived 'ideal' standard against which the experience is compared and then determine the disconfirmation of customer values. The model is

based on the assumption that factors such as ideals and experiences define the value received by the customer, which has a direct influence on the overall satisfaction of service received. Further, the gap between the ideal and the experience, determine the level of satisfaction.

The above model however is considered too simplistic and difficult to adapt in various organisational circumstances, as the model's concepts are too broad to be applied to specific instances (Seth et al., 2004). Further, the model also concentrates on the process as the determinant of overall customer satisfaction, which itself is a limitation (Buswell and Williams, 2003).

According to Seth et al., (2004), the sequentiality of the developments throughout the time indicates that researchers constantly attempted to modify the current thinking to improve their models. For example, aspects such as ease of use, appearance, linkage, reliability, efficiency, support, communication, security, incentive and so on have repeatedly appeared in many models. Further, it is also evident that the impact of models such as SERVQUAL (Parasuraman et al., 1985) and Performance Only Model - SERVPERF (Cronin and Taylor, 1992) as well as the Nordic based model by Grönroos (1984), had a major influence on the thinking of researchers and their understanding of the best way to measure quality. The next section of this chapter specifically looks at the SERVQUAL model and its dimensions, as well as several subsequent developments of this disconfirmation based model, in order to gain an in-depth understanding of the underlying theories and principles.

4.2 The SERVQUAL model

Evidence from the literature reviewed purports that the SERVQUAL model, and its subsequent developments, is the most widely used instrument in the measurement of service quality and performance. SERVQUAL was originally developed in 1985 by Parasuraman, Zeithaml and Berry and revised in later years (Parasuraman et al., 1985; 1988; 1990; 1991a; 1993; 1994; Zeithaml et al., 1990; 1991; 1992; 1993). It is determined as one of the most recognised approaches for measuring service quality. The authors of SERVQUAL suggested that the dimensions were transferable across many industries (Hugh and Wilkins, 2007; Buttle, 1995).

Its development involved conducting in-depth interviews with executives from four different industries – with differing dimensions suitable for the variety of service categorisations. Evidence from their studies concluded that regardless of the category of the service provided, consumers used similar criteria in assessing the quality of service received (Parasuraman et al., 1988).

The basis of the SERVQUAL model is that consumer expectations are subjective and consist of their wishes and beliefs that a service organisation should exhibit certain characteristics. Subsequently, customers weigh up the service performance via interactions with service organisations and form their judgement of service performance through interaction with organisations. The mismatch between customers' expectations and opinion about the actual service provided is what results in the customers' overall perceptions of service quality and whether the service organisation met their expectations (Parasuraman et al., 1985).

Furthermore, the SERVQUAL concept was developed on the basis of three underlying principles (Parasuraman et al., 1985 and Asubonteng el al., 1996) as; service quality is more difficult for the consumer to evaluate than goods quality; service quality perceptions result from a comparison of

consumer expectations with actual service performance, and quality evaluations are not made solely on the outcome of service; they also involve evaluations of the process of service delivery. These foundations have been adopted and used since, in the development of other service quality models (Abdullah, 2006c).

As described earlier in the chapter, in section 4.1, the SERVQUAL model uses the gap concept to support the understanding of customer expectations and perceptions. There are five gaps in the SERVQUAL concept (Parasuraman et al., 1985; Carl, 1998; Buttle, 1995) as follows;

Gap 1:   Customers' expectations versus management perceptions:

This gap may arise as a result of lack of regular marketing research of customer needs and inadequate upward communication within the organisation to facilitate communications between front line service staff and top management. Therefore, an organisation's management may have their own view of customers' expectations which may not necessarily match the reality (Asubonteng et al., 1996; Carrillat et al., 2007; Parasuraman, 1998).

Gap 2:   Management perceptions versus service specifications:

This gap may arise as a result of inadequate commitment to service quality by the senior management within an organisation. For example, a perception of unfeasibility and lack of commitment, inadequate task standardisation or specification and an absence of goal setting and service standards can cause this gap (Asubonteng et al., 1996; Carrillat et al., 2007; Bitner et al., 1997). Therefore, organisations must have a closer relationship between operational level service quality standards that are in line with the management's perception of quality (Parasuraman et al., 1985).

Gap 3:   Service specifications versus service delivery:

This gap may arise as a result of role ambiguity and conflict within the organisation, poor employee-job fit, job definition and poor technology-job fit i.e., both processes and systems, inappropriate supervisory control systems and lack of empowerment, lack of perceived control and lack of teamwork (Asubonteng et al., 1996; Carrillat et al., 2007; Bitner et al., 1997). Organisations may aim to bridge this gap by regular quality enhancement activities, such as total quality reviews, quality function deployment as well as regular monitoring of service standards against actual delivery (Parasuraman et al., 1985).

Gap 4:   Service delivery versus external communication:

This gap may arise as a result of inadequate horizontal communications with intermediaries and a propensity to over-promise by the organisation (Asubonteng et al., 1996; Carrillat et al., 2007; Bitner et al., 1997; Parasuraman, 2002). Further, such over-promising may lead to creating unrealistic customer expectations, many then in turn affect a greater mismatch of customer expectations against actual service delivery (Parasuraman et al., 1985).

Gap 5: The discrepancy between customer expectations and their perceptions of the service delivered:

Out of the five service gaps, the most commonly tested and reviewed gap is gap five, which is the simple mismatch between customer expectations and the actual service delivery. This gap may arise as a result of the influences exerted from the customer's side and the shortfalls, therefore gaps, on the part of the service provider. The difference between expected and perceived service quality can lead to a service quality gap i.e., both positive, where the actual service delivery exceeds the expectations, or negative where the actual service delivery falls below the expectations. It is also important to understand that customer expectations are influenced by several factors, including, the extent of personal needs, word-of-mouth recommendation and past service experiences (Asubonteng et al., 1996; Carrillat et al., 2007; Bitner et al., 1997; Parasuraman, 2002). Therefore organisations must concentrate on both sides of the spectrum, for example, by effectively managing customer expectations, via communicating realistic service standards as well as ensuring that the communicated service standards are delivered to meet those expectations (Parasuraman et al., 1985).

The basic SERVQUAL model as illustrated by Parasuraman et al., (1985) is as follows:
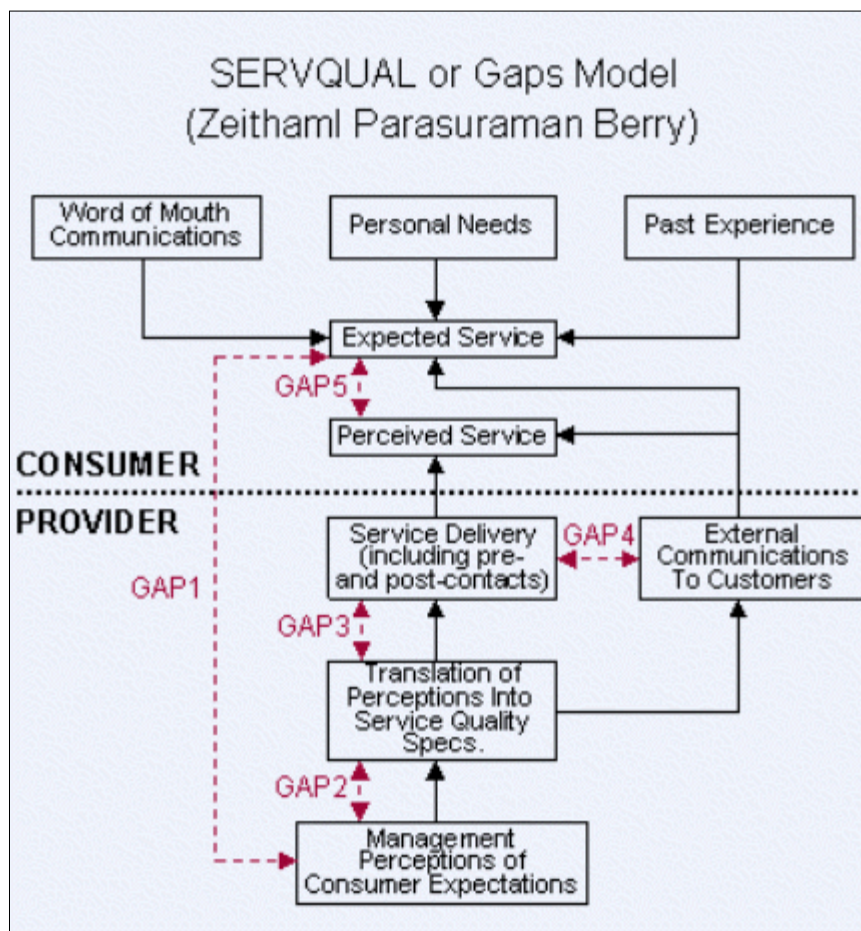
Diagram 4: the SERVQUAL model

According to Brown and Bond (1995), the gap model is one of the best received and most heuristically valuable contributions to the services literature. As described above, the model identifies five key gaps relating to managerial perceptions of service quality, and systems associated with service delivery to customers. The first four gaps i.e., Gap 1, Gap 2, Gap 3 and Gap 4 are identified as functions on the way in which service is delivered, whereas Gap 5 pertains to the customer and as such is considered to be the true measure of service quality. The Gap on which the SERVQUAL methodology has influenced the most is Gap 5 (Parasuraman, 2002 and 2004; Zeithaml, 2002; Asubonteng et al., 1996; Buttle, 1995).

In addition to the identification of gaps, as described above, SERVQUAL model also divided the overall service delivery into five areas, known as service quality dimensions. Parasuraman et al., (1985) described that customers use these five areas as standards to measure service delivery, specifically for gap 5. The following diagram adapted from Parasuraman (2004: p 12), shows the link between the SERVQUAL model and the respective service quality dimensions.
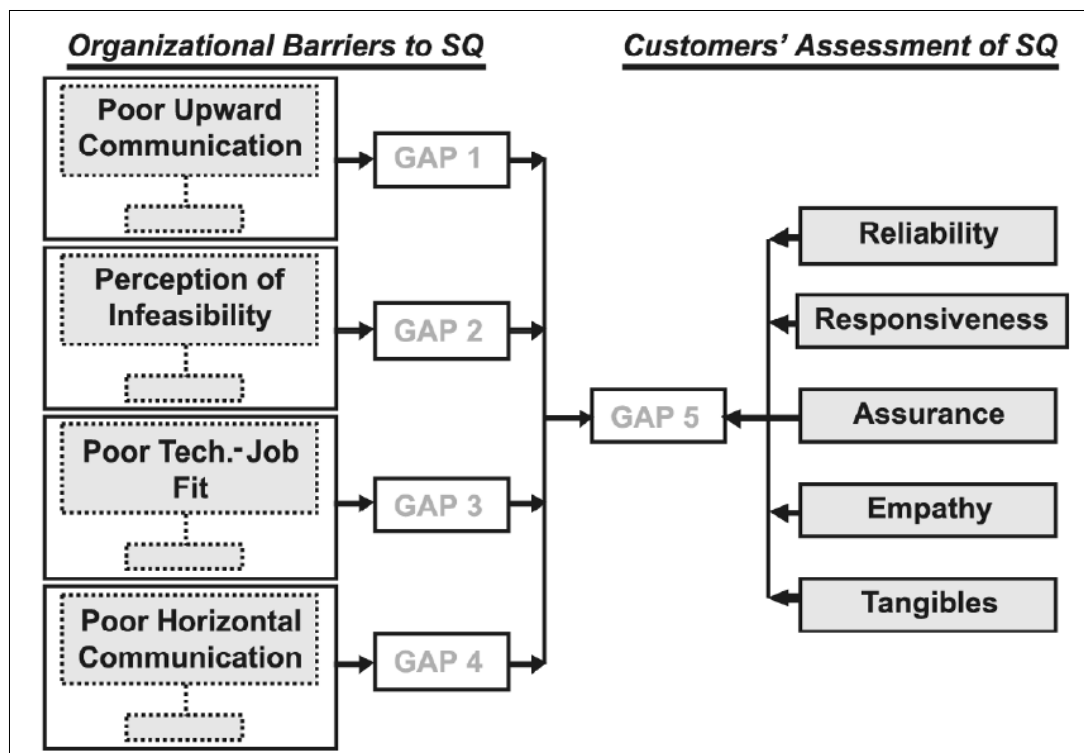
Diagram 5: the SERVQUAL model and service quality dimensions

As shown in the diagram above, Gaps 1 to 4 are functions within the organisation, whereas gap 5 is the real measure of service delivery from the customer's view point. Further, Parasuraman et al., (1985) linked the five service quality dimensions with gap 5 to demonstrate that customers use all these dimensions as a part of service evaluation.

However, the original SERVQUAL instrument identified ten dimensions as reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding and knowing the customer and tangibles (Buttle, 1995). However, Parasuraman et al., (1988) revised and combined

these dimensions into five areas as shown in diagram 5 above. The five dimensions are as follows (Parasuraman et al., 1988):

Tangibles: refers to physical facilities, equipment and the appearance of personnel or aspects that add physical substance to services;

Reliability: refers to the ability to perform the promised service dependably and accurately, on a continuous basis;

Responsiveness: refers to the staffs' willingness to help customers and provide prompt service, and meet customer requirements promptly;

Assurance: refers to the general competence, courtesy, credibility and security provided by the organisation as part of the service offering, as well as the knowledge and courtesy of employees and their ability to inspire trust and confidence as part of service delivery;

Empathy: refers to the access, communication, understanding the customer needs, caring and individualised attention that the organisation provides to its customers.

As seen from the explanations above, Parasuraman et al., (1988) attempted to ensure that these dimensions are generic and adaptable to various service contexts. For example, Brochado, (2009: p 176) stated that, *'In the context of Higher Education these dimensions include the appearance of the university's physical facilities, equipment, personnel and communication materials (tangibles), the ability of the university to perform the promised service dependably and accurately (reliability), the willingness of the university to help students and provide prompt service (responsiveness), the knowledge and courtesy of teachers and their ability to convey trust and confidence (assurance) and the caring, individualised, attention the university provides its students with (empathy).'*

In addition to identifying the five service quality dimensions, the SERVQUAL instrument also uses 22 statements to measure performance across these five dimensions, using a seven point Likert type scale measuring both customer expectations and perceptions in turn (Gabbie and O'Neill, 1996). The 22 statements consist of tangibles, responsiveness and assurance which is measured by four statements each, and responsiveness and empathy by five statements each. In addition to this, the statements for responsiveness and empathy are reverse scored (Cuthbert, 1996a).

These 22 statements can be further adapted to suit the specific needs of the various organisations when applied (Parasuraman, 2004 and 2002; Carrillat et al., 2007). The concept of measuring the difference between expectations and perceptions in the form of the SERVQUAL gap score proved very useful in assessing levels of service quality offered by the organisation and experienced by the customers, as the instrument enables organisations identify key gaps and prioritise their strategies (Parasuraman, 2004 and 2002).

As described above, almost all of the current literature and research on the SERVQUAL approach has been focused mainly for closing Gap 5, utilising the five service quality dimensions. However, its application could also be extended to the analysis of other gaps as well (Parasuraman 2004 and 2002; Asubonteng et al., 1996; Ziethmal ,2002). Therefore the SERVQUAL model can be considered as a two part instrument of which, gap five can be considered as the external gap with gaps one to four referring to internal factors, as shown in diagram 5 above (Parasuraman, 2004).

In line with Parasuraman (2004), an empirical study carried out by Smith et al., (2007) found that both students (customers), as well as staff, gave similar weightings to SERVQUAL dimensions, suggesting that both internal and external factors have a close relationship. Further, the study also reveals significant gaps in students' expected quality of services and staff's perception of good quality, raising questions of the internal gaps (gap 1 to 4) identified by the SERVQUAL model. However, as stated above, most of the empirical studies involving the SERVQUAL model were in fact based on addressing the external gap (Gap 5), suggesting that the model still holds as one of the leading instruments to measure external service quality. For example, previous studies in this area suggest that the SERVQUAL model can be adapted to a wide range of sectors (Bitner et al., 1997; Zeithmal, 2002; Athiyaman, 1997; Abdullah, 2006c; Pariseau et al., 1997; Hewitt et al., 1999; Seth et al., 2005; Paula, 1999; LeBlanc et al., 1997).

Va-Hzquez et al., (2001) studied service quality in supermarket retailing, which attempted to clarify and extend the conceptualisation and measurement of service quality in the retail environment. The review of retail and service quality literature, and the findings from a qualitative study conducted by the author, revealed that service quality in retail companies adopting the commercial format of supermarkets has a four factor structure, as opposed to five identified by the SERVQUAL instrument, the factors were; physical aspects, reliability, personal interaction and policies.

Further, Landrum et al., (2009) studied measuring information system service quality with SERVQUAL instrument and concluded that; companies that provide client services and designers of information systems that interface with users should emphasis responsiveness and reliability; in cases of limited user resources, responsiveness and reliability should be emphasised over other SERVQUAL dimensions.

According to the foundations of the SERVQUAL model and disconfirmation paradigm, the concept of service quality is identified as the gap between what the customer 'expects' by way of service quality from a series of service providers, for example, all independent educational institutions in general, and customer's evaluations of the 'perceived' service of a particular service (Buttle, 1995). According to Parasuraman et al., (1988), exceeding or meeting customer expectations will then lead to 'customer satisfaction'. Therefore, the measurements taken on products and services that meets or exceeds and are expected by the customers are termed to be customer satisfaction. According to, Buttle (1995), customer satisfaction is one of the main considerations for any company. For example, if a customer is not satisfied or happy at any point, it remains the duty of the company to satisfy the customer (Parasurnam et al., 1985).

In order to benefit the customer, it is very significant that the service made to customers is consistent and reliable (Horne et al., 2008). According to different researchers, various different perspectives have to be given to achieve and meet the needs of the customer and most importantly the ways to determine good customer satisfaction (Bitner et al., 1997; Zeithmal, 2002; Athiyaman, 1997; Abdullah, 2006c; Pariseau et al., 1997). For example, the relationship between customer satisfaction and service quality delivery are different concepts, although both influence the nature of the customer's future selection intentions, hence loyalty. In particular, for this study, the service quality is the overall evaluation and the perfect solution for the selection of an educational institution, and it contributes to the experience of the customers at the specific institution and how

they measure that particular experience against their expectations. This will eventually lead to constructive service quality and customer satisfaction (Horne et al., 2008).

One way of looking at service quality is that when a customer is satisfied, a proper judgment is given on the services that have exceeded or been received equally (Buswell et al.,2003), Therefore, in line with the disconfirmation theory, CUSTOMER SATISFACTION (CS) = PERCEPTIONS (P) - EXPECTATIONS (E). Another way of looking at customer satisfaction is the outcome of a customer's perception, where the value gained in a relationship or transaction, where value equals perceived service quality, is relative to price and customer acquisition costs (Su, 2004).

Providing services which the customer prefers is obviously a good starting point for providing customer satisfaction. Su (2004), argues that constructive satisfaction and dissatisfaction, where satisfaction is all about continuum in terms of emotions, and therefore emotions play a major role in customer satisfaction and service quality. For example, feelings of anger will lead to dissatisfaction, while emotion such as happiness will lead to satisfaction. A relatively easy way to determine what services a customer prefers is simply to ask customers (ibid).

Further, in high touch services such as in education, the customer participation in the actual service quality is also essential, for example during an education seminar. In order to receive a higher level of quality, it is essential that the student participates in the delivery by completing the required coursework and attending the seminar fully prepared (Bitner et al., 1997). Therefore the customer plays a part of his or her level of satisfaction. Bitner et al., (1997) further identified three customers' roles in service experiences as; the customer as a productive resource, the customer as a contributor to quality, satisfaction and value and the customer as a competitor to the service organisation. All these are true in high touch services in the education sector. Lam and Zhang (1999), agreed with Bitner et al., (1997), but also described that customer expectation is generally created or molded by certain uncontrollable factors such as their previous experience, the image that they get from external communications, word of mouth, experiences from their friends or families, the customers physiological condition at the time of the service interaction, their backgrounds and values.

In line with, Lam and Zhang, (1999), Zeithmal et al., (1990) described that customer service expectations are built on complex considerations, including their own-pre purchased beliefs and the opinions of other people. Further, Miller (1999) agreed and described that customer expectations are directly related to their satisfaction at different levels. It may depend on the customer's previous experiences, the external communication ways like advertisement of the company and word-to-word communication. In simple terms, the customer expectation is simply what the customers expect to receive from the service provider. Different customers have different expectations based on their psychological factors, their backgrounds and values.

Continuing from the discussion above and from the viewpoint of the diversity of expectation definitions, it could be stated that customer expectation is an uncontrollable factor which is caused by their previous experience at the organisation, the external communication factors such as the promises made on advertisements and the customer's psychological factors at their time of service received (Miller, 1999; Parasuraman et al., 1985). Further, the consumers are different in terms of attitudes and behaviours. Therefore, different consumers have different expectations towards the products or services at any given time. The customer expectations are therefore longitudinal, and likely to change during the service experience (Aldridge and Rowley, 1998). This is especially true in

the case of educational qualifications, where the customer is expected to have a relatively longer term interaction with the educational institutions, and it remains to the responsibility of the institution to understand and measure these changing customer behaviours (Abdullah, 2006b).

As described in 4.1 above, SERVQUAL is based on the disconfirmation paradigm. The disconfirmation theory emerges from the basic foundation of customer satisfaction needs. According to the disconfirmation theory, customer satisfaction is calculated by the differences between the customer expectations and desires of service and their perceived services at the organisation (Miller 1999; Parasuraman et al., 1985). In addition, Khalifa and Liu, (2003) described that customer expectations could be defined as the customer's partial beliefs about the product or service. The customer expectations are the views or predictions which are framed by the consumers towards a product or service (ibid). According, Cadotte et al., (1987), the customer perceived performance could be defined as the perception of how the product performs to fulfill the needs, wants and desires of the customer. Therefore, according to the disconfirmation theory – on which the SERVQUAL model is based - the satisfaction can be described as the gap between the expectations and perceived performance, which is a promising approach to explain customer satisfaction (Su, 2004).

According to Cadotte et al., (1987), the expectation theory of disconfirmation can have one of the following outcomes; positive disconfirmation, equal and confirmation, and negative disconfirmation. The positive disconfirmation occurs when the customer perceived performance is exceeded by the customer expectations. The equal or confirmation occurs when the performance meets the customer expectations of services. The negative disconfirmation occurs when the customer perceived performance is less than the customer expectations (Cadotte et al., 1987). Therefore, the SERVQUAL model employs two set of questions, with one measuring the expectations and the other perceived service. The difference between the two outputs, then determines whether the organisation achieved positive, equal or negative disconfirmation (Parasuraman et al., 1985).

Khalifa and Liu (2003), further construed that by taking expectation disconfirmation as the only determinant of satisfaction, and therefore to empirically create disconfirmation by manipulating the expectations and performance, in agreement with Su (2004). Buswell et al., (2003) further argued that customers are subjective in judgment, and as to whether or not they are satisfied with the service they received is not a simple yes or no answer. Satisfaction could be of a lesser or greater degree, from adequate through desired to delight, therefore disagreeing with Khalifa and Liu (2003).

However, Parasuraman, (1995) and Buswell et al., (2003) argue that between desired and adequate, the continuum may represent totally unacceptable levels of the service. The recent researches have proved that the customers have a great range of quality levels that were agreeable to them, which is known as zone tolerance. The zone of tolerance was adapted by Zeithmal et al., (2003), and explained that the zone of tolerance model as the dissimilarity between desired service and adequate service levels. The zone of tolerance model also acknowledges that customers enter service encounters with different expectations in mind. Zeithmal et al., (2003) further described the desired service as the level of service the customer is looking forward to receiving and the adequate service as the service standards the customers will accept. Hence, the zone of tolerance exists within these two parameters (Zeithaml et al., 2003). Therefore, customer satisfaction is not a simple disconfirmation between expectations and perceived service, but also to do with desired and adequate service definitions. This concept has also been supported by Parasuraman, (2004), where

he agreed that customers, rather than having a single 'ideal' level of expectation, actually end up with a range of expectations and named this zone as the 'zone of tolerance'. Parasuraman (2004: p 47) states, *'Customers' service expectations can be greatly influenced by what the organization promises, both explicitly and implicitly'*. Therefore, suggesting that the zone of tolerance is not static and can vary from customer to customer.

Continuing with the above discussion, Johnson (1995) gave instances of customer expectations having an effect on the wideness of the zone of tolerance. For example, if customers perceive an action has a high risk, their zone of tolerance will be narrow. The same activity applies to an individual or person who is very familiar with it – the service may be perceived as low risk and hence may have a wider zone. It is therefore proposed that service providers can skilfully manage these two extremes by giving information as well as assurances to customers, enabling the service provider to manage a wider zone of tolerance, thereby reducing customer dissatisfaction.

Therefore, in summary, the key items in measuring service quality should involve the concepts of perceived service quality, satisfaction, expected service quality as well as perceptions, as these are widely used in the literature and can be considered as pillars of developing any effective tool in measuring service quality (Aldridge and Rowley, 1998). Aldridge and Rowley (1998: p 199) state, *'The most important contributions from the service quality literature are the concepts of perceived quality, satisfaction and expectations and perceptions*.'

Finally, Parasuraman (2004), argues that any service quality measurement instruments must be part of a wider service quality information system, where organisations should gather information from other sources such as transactional surveys, mystery shoppers, new, declining and lost customer surveys, focus group interviews, customer advisory panels, service reviews, customer complaints, comments and inquiry capture, total market surveys as well as employee field reporting.

As described in this section of the report, the SERVQUAL model has been a cornerstone of a variety of academic discussions. The model is generic enough to adapt and apply to a variety of sectors. The section below, explores SERVQUAL's application within the education sector – as well as its subsequent developments, such as SERVPERF.

4.3 Applications within education

Educational institutions should ensure that all service encounters are managed in a way that they enhance the students' perceived service quality. Many academics argue the importance of enhancing the service quality in the education sector (Gallifa and Batalle, 2010; Kiran, 2010; Sultan and Wong, 2010; Nejati and Nejati, 2008; Jamali and Tooranloo, 2009; Banwet and Datta, 2003; Sahney et al., 2004 and 2008; Kwan and Ng, 1999; Chen et al., 2006; Prugsamatz et al., 2006; Trivellas and Dargenidou, 2009; Ladhari, 2008). However an appropriate service quality measurement tool, specific to the independent higher educational institutions in the UK, is yet to be developed (Brochado, 2009; Gallifa and Batalle, 2010).

In many cases, quality assurance, especially within higher education, is characterised by more paperwork, bureaucratic processes as well as interferences with daily academic work (Kleijnen et al., 2011). This is partly a result of lack of understanding of service quality, along with a lack of a customer centric approach taken by higher educational institutions (Abdullah, 2006a). Empirical

research carried out by Kleijen et al., (2011) with faculty members at 18 university departments, revealed that academic staff members are either natural or positive to effective quality assurance measures, more specifically showing positive involvements in quality management areas in teaching and academic professions. For example, Brochado (2009: p 175) stated, *'in fact, the use of the most appropriate measurement tool would help managers to assess service quality provided by their institutions, thus having the ability to use the results to better design service delivery'.*

In the UK, many colleges and universities frequently used SERVQUAL models to measure the level of service quality (Aldridge and Rowley, 1998; Angell et al., 2008; Oldfield and Baron, 2000; Galloway, 1998; Cuthbert, 1996a; Clarke et al., 2007). However, the usage of the SERVQUAL model in the Education Sector has been dominated by the state sector educational providers in the UK (Athiyaman, 1997; Susan et al., 1997; LeBlanc et al., 1997 and 1999; Douglas et al., 2006). In line with this, Angell (2008: p 239) stated, *'It has been argued that a 'customer' metaphor for describing the university service exchange from the perspective of students is unsuitable. After all, this indirectly frames the academic as the service provider, and thus retracts their immunity from the common market axiom: 'the customer is always right''*, a concept yet to catch the attention of many state educational providers, as they are yet to see students as customers (ibid).

However, the growing competition and the financial pressures for students mean that they are likely to recommend an education institution to their family, friends and colleagues on the basis of the level of the service that they have received (Aldridge and Rowley, 1998). Oldfield and Baron (2000), argue that students are clear in terms of academic and non- academic staff members and their service delivery. For example, students expect both academic as well as non-academic staff members to respond to their 'requests for assistance' within a reasonable period of time. In line with this, Oldfield and Baron (2000: p 88) further stated that, *'academic staff are often too busy to respond to a request for assistance, and administrative staff are never too busy to respond to a request for assistance'.* This shows the importance of the service quality within an academic environment, without compromising the academic quality and integrity of the qualifications. Further, Oldfield and Baron (2000), found that students did not expect to receive academic favouritism as a part of service quality. In agreement with Oldfield and Baron (2000), Angell (2008: p 239) argued that *'if students cannot be seen as 'customers', the measurement of service quality, with the intention of improving the service offering is wholly inappropriate. Some contend this view, suggesting that the acceptance of the student as the 'customer' need not negate the power relationship between students and academic staff. It appears that refuting the idea of the students as a university customer on such grounds is narrow, and ignores the fact that the university experience is wider than just the contact between students and academics'.* Therefore, the service quality within higher education is no longer an option, but a requirement (ibid).

For example, the UK based studies of SERVQUAL, as explained above, have been supported by international research in countries such as the US (Anderson and Zwelling, 1996; O'Neill and Palmer, 2004; O'Neill, 2003; Pariseau and McDaniel, 1997), the Kingdom of Saudi Arabia (Yeo, 2008), United Arab Emirates (Jabnoun and Khalifa, 2005; Badri et al., 2005), Turkey (Assaf et al., 2008), Spain (Gallifa and Batalle, 2010), Malaysia (Kiran, 2010), Japan (Sultan and Wong, 2010), Iran (Nejati and Nejati, 2008; Jamali and Tooranloo, 2009), India (Banwet and Datta, 2003; Sahney et al., 2004 and 2008), China (Kwan and Ng, 1999; Chen et al., 2006; Prugsamatz et al., 2006), Greece (Trivellas and Dargenidou, 2009), Canada (Ladhari, 2008), Australia (Soutar and McNeil, 1996; Waugh, 2002) and

Bangladesh (Shoeb and Ahmed, 2009). All these studies either used the standard SERVQUAL model or adapted versions of the same model. Further, the studies mentioned above, mainly focused on the five service quality dimensions as well as the gap 5 of the SERVQUAL model, and the researchers were limited to mainly state funded universities and colleges.

After an extensive research of published journal articles by the researcher, the only evidence of the usage of the SERVQUAL model within the private education sector was found in the US (Ruby 1998; Bitner et al., 1997; Labay et al., 2003), Malaysia (Sohail et al., 2003 and 2004), UAE (Abdullah, 2006c) and Hong Kong (Paula et al., 1999; Li et al., 2003). According to Aldridge and Rowley (1998), the reason why the quality based studies are limited to state colleges and universities, was as a result of the regulatory requirement to publish a student charter – as per the requirements published by the Department for Education in 1993 – and these student charters described standards against which the performances are measured, therefore effectively setting the 'level of expectations' from management's point of view. However, the approach is fundamentally flawed, as a true service quality measurement tool must be based on customers' expectations of quality, as opposed to managements' perceptions of quality (Parasuraman et al., 1985).

Most of the customised published works on service quality measures in higher education are generally focused on course delivery and quality of contents and teaching (Oldfield and Baron, 2000). This raises the need to develop a service quality instrument that is student centric and specifically addresses their expectations. Oldfield and Baron (2000: p 85) stated that, *'the mechanisms for measuring service quality of courses and programmes (e.g. student feedback questionnaires) devised by representatives of the higher education institutions to provide data which addresses various externally set audit criteria'*, such as the regulatory requirements set by the governmental and funding authorities.

Students, especially at state funded universities and colleges, tend to undertake long term courses with significant long term personal and financial commitments (Angell et al., 2008). Angell et al., (2008: p239) stated that, *'It has been found that when making the uncertain and high-risk decision of choosing a university, the student will look for evidence of service quality, confirming its importance in the University's function. Therefore ignorance of the competitive nature of attracting students, alongside the importance of measuring the service quality, will ultimately be at the disadvantage of the institution.'* For example, Ruby (1998) analysed perceived and expected values of four departments, academic records, admissions, career services and financial aid, at two different private business schools in the US. In her study, she adapted altered variations of SERVQUAL's service quality dimensions. The dimensions used in her studies are as follows:

> Assurance; the ability to earn students' confidence by performing services in a knowledgeable and professional manner;
>
> Empathy; being able to communicate care and understanding through the interpersonal skills of the staff and student-friendly policies and procedures;
>
> Reliability; the accuracy and dependability with which an office or department provides its services;

Responsiveness; the demonstration of an eagerness to be of service, and a commitment to act in the best interest of the students;

Tangibles: the physical appearance of the office, its staff, and any materials associated with service delivery.

According to Ruby (1998), an effective educational institution's service delivery must comprise all these dimensions, with reliability and responsiveness maybe having a higher weighting of short term enhancement of perceived quality. Contrary to Ruby (1998), Oldfield and Baron (2000: p 87) stated, *'the employee's ability and willingness to satisfy, and his/her manner and appearance, all play a part in determining how satisfied the customer is with the service encounter'*, highlighting the importance individual service staff members play in service delivery. An empirical study carried out by Cuthbert (1996a), found that the service quality dimensions, as identified in the SERVQUAL model, are not appropriate to measure the service quality in higher education, suggesting that students and respondents found it difficult to identify and relate to these factors consistently. This suggests a more tailor-made tool is required within the Higher Education sector.

On the other hand, the HEdPERF model (Abdullah, 2004), which is an adaptation of the SERVQUAL model, refined and identified newly defined service quality dimensions that are more specific to the Higher Education sector as follows:

Non- academic aspects: items that are essential to enable students to fulfil their study obligations, and relate to duties carried out by non-academic staff, such as the ability and willingness of administrative or support staff to show respect, provide equal treatment, and safeguard confidentiality of information;

Academic aspects: the responsibilities of academics, such as having a positive attitude, good communication skills, allowing sufficient consultation and being able to provide regular feedback to students;

Reputation: the importance of projecting a professional image such as having hostel facilities and equipment, academic facilities, internal quality programmes and so on;

Access: issues surrounding approachability, easiness of contact and availability and convenience of meeting staff;

Programme issues: importance of offering wide ranging and reputable academic programmes that are flexible, with qualified staff delivering them. Also involves factors such as students' feeling secure and confident.

In addition to the five main higher educational quality dimensions, Abdullah (2006b), also identified 'understanding' as another dimension, which includes issues such as minimal class sizes, counselling services and health services at the institution; however this dimension was discarded in his studies later in the year, due to its similarities with academic aspects and non-academic aspects.

Building further on from the HEdPERF model, Adbullah (2006b) developed a combined factor model, based on both SERVQUAL (Parasuraman et al., 1985) and HEdPERF (Abduallah, 2004), identifying four dimensions, which he believes have a better reliability. The combined dimensions were non-academic aspects, academic aspects, reliability and empathy, combining both SERVQUAL's as well as HEdPERF's dimensions. In fact the studies carried out by Abdullah (2006b) confirmed that the combined dimensions have higher reliability scores than the standalone HEdPERF and SERVPERF (Cronin and Taylor, 1992) dimensions. Contrary to this, the studies carried out by Brochado (2009) involving 360 Postgraduate Students, found that the standard HEdPERF dimensions performed better in both reliability and validity tests, in comparison to SERVQUAL, Weighted SERVQUAL, SERVPERF and Weighted SERVPERF dimensions. However, the study further revealed that all five scales present good results in terms of measurement capabilities.

Further, Athiyamn (1997) developed a model of customer satisfaction and perceived quality and found out that the perceived service quality is a consequence of customer satisfaction, rather than two separate aspects of service quality, leading to the argument the customer relationships play a crucial role in customer satisfaction. In line with this argument, Aldridge and Rowley (1998: p 200) stated that, *'it is possible the students may become more discriminating and critical of service delivery as their relationship with a higher education institution develops'*. Therefore, students at an educational establishment may have varying degrees of expectations as and when they get familiar with the institution. Therefore, the need to gather data separately on expectations and perceptions is not necessary (Oldfield and Baron, 2000). Further, Oldfield and Baron (2000: p 88) stated that, *'it is unlikely that they [students] would have been able to retrospectively rate their expectations in a way that was uncoloured by their experience*.', thereby questioning the validity of having two separate statements i.e., one for expectations and one for perceived service, on the same instrument.

In line with Oldfield and Baron (2000), Abdulla (2006c) incorporated SERVQUAL, SERVPERF as well as HEdPERF to find out the link between these tools and analysed which is the most effective in measuring service quality in higher education and concluded that the HEdPERF model, which combines four education specific dimensions: non-academic aspects, academic aspects, reliability and empathy, is stronger and more effective in higher education service measurement than the SERVQUAL or SERVPERF. However, the majority of his research is based on Malaysian tertiary higher educational institutions, its applicability in general education has not been fully validated. Abdullah (2006a: p 570) stated that, *'nowadays, higher education is being driven towards commercial competition imposed by economic forces resulting from the development of global education markets and the reduction to seek other financial sources. Tertiary institutions had to be concerned with not only what the society values in the skills and abilities of their graduates, but also how their students feel about their educational experience',* identifying the importance of higher educational institutions behaving commercially to fully explore the importance of service quality and customer retention. Therefore student satisfaction and service quality are highly integrated and directly linked to the return on investment for the Institution (Bebko, 2000). Educational institutions that have higher student satisfaction levels can expect to reduce their costs dramatically as a result of reduced advertising costs, reduced cost of staff turnover, above average results, and higher staff and student productivity (Labay et al., 2003; DeShields, 2005). In addition, service quality is also closely linked with the total quality management of the educational institution (Pariseau et al., 1997; Hewitt et al., 1999; Pauala et al., 1999; Sohail et al., 2003) and the profitability of the institution (Parasuraman

1998 and 2002; Zeithmal, 2002; Bebko, 2000). For example, DeShields et al., (2005) identified that students who have a positive college experiences are more likely to be satisfied with the college or university than students who do not have a positive college experience; supporting the argument of perceived service quality and long term customer relationships management. Also, the first impression of students of the educational institution will enhance their expected service qualities and therefore leave a lasting impression and lead to more peer recommendations (Abouchedid et al., 2004)

Building on from Abduallah (2006a) above, Paula et al., (1999) identified seven factors contributing to the quality of education as; course content, concerns of students, facilities, assessments, medium of instructions, social activities and people. Therefore, supporting Abdullah (2006a), that the standard service quality dimensions as proposed in the SERVQUAL model may not be applicable to educational institutions. Li et al., (2003) and Labay et al., (2003) supported this argument via CFA (Confirmatory Factor Analysis), where they challenged SERVQUAL's validity of the information age of education. LeBlanc et al., (1997), on the contrary, identified reputation, administrative personnel, faculty, curriculum, responsiveness, physical evidence and access to facilities as core educational service quality dimensions, supporting general SERVQUAL dimensions. LeBlanc et al., (1999) and Sohail et al., (2004) further supported this by adding the relationship between price and quality, the knowledge acquired, the economic utility of degree, image and social and emotional values as important drivers of value in education.

Further, evidence of refined SERVQUAL dimensions can be found at Waugh (2002), where he re-structured SERVQUAL dimensions into two broader categories as 'reliability and responsiveness' and 'assurance and empathy' when he carried out service quality research within several Australian universities, therefore, demonstrating that the SERVQUAL dimensions are still applicable within the higher education service quality measurement. Further Shekarchizadeh et al., (2011) further refined SERVQUAL dimensions as; professionalism, reliability, hospitality, tangibles and commitment to measure service quality of the international students studying at Malaysian education institutions, and found that the tool and dimensions conform to internal consistency and reliability. Also, Harvey (1995), identified library services, computer services, refectories, accommodation, course organisation and assessment, teaching staff and teaching style, teaching methods, student workload and assessment, social life, self-development, financial circumstances and university environment as typical student satisfaction topics as service quality dimensions for educational institutions, whereas, Hill (1995), identified library services, computing facilities, catering service, accommodation service, course content, personal contact with academic staff, teaching methods, teaching quality, student involvement, work experience, financial services, feedback, joint consultation, university bookshop, career service, counselling welfare, health service, student's union, physical education and travel agency as service quality dimensions, providing a more descriptive understanding of dimensions . Going back to more combined and integrated dimensions, Angell et al., (2008) identified four factors of service quality as; academic, leisure, industry links and cost/value for money, and concluded that for postgraduate student academic factors, which include skilled and encouraging teachers, practical skills taught, regular access to teaching staff, variety of library books and journals, easily transferrable skills, reputable degree programme and good computing and web facilities, represent the highest priority and importance, which is in line with Abdullah, (2006a) as well as Aldridge and Rowley, (1998).

Finally, a longitudinal analysis conducted by Aldridge and Rowley, (1998), comprises student feedback collected at three different locations, across a varying range of qualifications and over three years, found the issues affecting service quality to include; teaching and learning, teaching and learning support, teaching and learning development, services and facilities for students, equal opportunities, disability and environment, communication, consultation, feedback and complaints as service quality dimensions. This above research was supported by Oldfied and Baron (2000: p 85), which states, *'There is, of course, a distinct possibility that student evaluation of different elements of service quality may alter over time, especially in the case of sandwich degree students who will have experienced a different culture during their studies. What is evident in this analysis is that service quality dimensions can vary according to the sector, the customer as well as the level of customer interaction'*.

What is evident here is the clear similarities as well as differences in these lists, which are attributed to the respective educational institutional and customer circumstances (Aldridge and Rowley, 1998). Therefore, it can be concluded that the standard SERVQUAL, SERVPERF or HEdPERF models, in their entirety are unlikely to provide an effective, reliable and valid tool in measuring service quality within the private higher educational institutions in the UK. However, at the same time the application of the underlying principles of SERVQUAL, and linked models such as SERVPERF and HEdPERF, are widely accepted. As argued in this section, many researchers indeed used adapted SERVQUAL dimensions to measure service quality within their respective educational institutions. However, it is also important to understand and acknowledge the respective strengths as well as weaknesses of the SERVQUAL model and its underlying constructs before finalising on the best approach to measure service quality in private colleges in the UK.

4.4 Critical analysis of SERVQUAL model

As one of the most widely used models of service quality, the validity and reliability of the SERVQUAL model as an instrument to measure customer service quality has come under great scrutiny during the past few decades (Buttle, 1995; Ruby, 1998; Asubonteng et al., 1998). Buttle (1995) identified various 'theoretical' and 'operational' limitations of the instrument and its underlying construct as follows:

Theoretical:

> **Paradigmatic objections: the** SERVQUAL model is based on a disconfirmation paradigm, where the model tries to match and compare expectations and outcomes/perceived service, rather than an attitudinal paradigm and therefore SERVQUAL fails to draw in established economic, statistical and psychological theory. This is also supported by articles published by Cronin and Taylor, (1992 and 1994) as well as Iacobucci et al., (1994) and Smith et al., (2007).

> **Gaps model:** there is little evidence that customers assess service quality in terms of perceived minus expected gaps alone. As described in section 4.3 above, customers use a variety of other factors as the service encounter develops. This view has also been supported in articles published by Babakus and Boller (1992) and Iacobucci et al., (1994) and Douglas et al., (2006).

Process orientation: it can be argued that **the** SERVQUAL model focuses on the process of service delivery, not the outcomes of the service encounter. The model does not necessarily determine which process and outcome quality attributes impact (Richard and Allaway, 1993). This is also supported by subsequent articles published by Cronin and Taylor (1992), Mangold and Babakus (1991) and Joseph et al., (2005).

Dimensionality: SERVQUAL's five dimensions are not universals and therefore raise concerns of their applicability for cross sectored analysis. The number of dimensions comprising service quality may not be adequate for all sectors. This is supported by subsequent research carried out by Saleh and Ryans (1992); Smith et al.,(2007) as well as Chen et al., (2006).

Operational:

Expectations: The term expectation is polysomic, as multiple definitions can be applied, and therefore lacks one standard definition. Consumers use standards other than expectations to evaluate service quality and SERVQUAL fails to measure absolute service quality expectations as SERVQUAL asks respondents to report on their expectations of excellence service providers (Iacobucci et al., 1994).

Item composition: Four or five items cannot capture the variability within each Service Quality dimension. For example, the tangibles, responsiveness and assurance are measured by four items and reliability and empathy by five items (Buttle, 1995).

Moments of truth: Customers' assessments of service quality may vary. The moments of truth function is likely to change from sector to sector and therefore customer assessment criterions need to be changed (Carman, 1990; Zhao, 2003).

Polarity: The reversed polarity of items in the scale causes respondent error. For example, out of twenty two items used in SERVQUAL thirteen are positively worded and nine (mainly the ones relating to responsiveness and empathy) are negatively worded (Babakus and Boller 1992; Babakus and Mangold 1992).

Scale points: The seven-point Likert scale is flawed. As its lacks verbal labelling of points 2 to 6 (Lewis, 1993) and also respondent's interpretation of the mid-point may be different from person to person (Babakus and Mangold, 1992).

Two administrations: Two administrations of the instrument cause boredom and confusion. Also, the fact that respondents are required to complete forty four statements may take a long time and lead to incorrect responses (Carman, 1990; Bitner et al., 1997).

Variance extracted: The overall SERVQUAL score accounts for a disappointing proportion of item variances which leads to concerns of the validity of the SERVQUAL tool to measure service quality (Carman, 1990; Babakus and Boller, 1992; Buttle, 1995).

In addition to the criticisms from Buttle (1995), Angell et al., (2008: p 238) stated that, *'one of the most concerted attacks came from Cronin and Taylor (1992), who claimed that the model was 'inadequate', suggesting that the 'expectations' measure was irrelevant and confusing'.* Further,

Cronin and Taylor (1992) proposed an alternative model, discarding the disconfirmation principle, and utilising a performance-only measurement of service delivery. Respondents were only asked to measure the 'perceived' level of service, as opposed to measuring two variances: expectations and perceptions. Subsequent models developed, such as HEdPERF (Abdullah, 2006a) chose to follow Cronin and Taylor's (1992), suggestion and adapted performance-only measures. Both SERVPERF and HEdPERF models were found to have higher level of validity and reliability when compared with the disconfirmation based SERVQUAL model.

In addition, the above limitations raised concerns with face validity and construct validity of the SERVQUAL model (Buttle, 1995). Also these create the concerns of the reliability of SERVQUAL as a tool to measure service quality (Asubonteng et al., 1996). However, as one of the most used tools in measuring service quality, SERVQUAL's validity and reliability have been tested across a diverse range of studies. For example, Parasuraman et al., (1985 and 1988) tested the validity and reliability of the SERVQUAL model with customers of telephone companies, securities and brokerage, insurance companies, banks and repair and maintenance companies. In addition, Carman (1990) used SERVQUAL to measure service quality on dental clinics, a business school placement centre, a tyre store and a hospital. Finn and Lamb (1991), conducted service quality research using the SERVQUAL model in retail outlets (K-Mart, WalMart, JC Penny's and Sears). Babkus and Mangold (1992) used the SERVQUAL model on customers of hospitals. All these studies have contributed to validate SERVQUAL as a valid and reliable tool to measure service quality. Further, Parasuraman et al., (1988) and Babakua and Boller (1992) tested the reliability of the tool by using Cronbach's Coefficient Alpha and found out that the coefficient is at an adequate level across a variety of organisations and sectors.

However, Teas (1993a) has been one of the fiercest critics of the earlier SERVQUAL model and proposed that his 'alternative evaluated performance model' provides a better fit for measuring perceived service quality. He argued that customers often have an ideal, or reasonable satisfaction standard, that service performance is relatively benchmarked against. He further stipulated that SERVQUAL is inappropriate because capturing, or even measuring, consumer anticipation is difficult and is never constant. This contrasts with his model, which further emphasises the customer's insight based on their anticipation of the services received from the provider. Evidence from his study found that the relative construct validity of his model was comparatively higher than the SERVQUAL model. Parasuraman et al., (1994) countered this criticism by stipulating that Teas (1993b) classical ideal point can be at an infinite level and that customers will most probably consider the SERVQUAL factors to have vector attributes and, as such, the problems highlighted by Teas (1993b) might be insignificant. However, the researcher concurs with Teas (1993b) that there are several levels of consumer expectations, which were not specified in the Parasuraman el al., (1985) original study and hence are exposed to many different interpretations.

Cronin and Taylor, (1992 and 1994) propounded the SERVPERF model and argued that it provides a much better measurement tool for perceived service quality compared to the SERVQUAL model. A review of previous studies on the topical issue showed that the SERVPERF model was further supported by other researchers such as Bolton and Drew (1991), Boulding et al., (1993), and Oliver (1993). Cronin and Taylor (1994) posited that service quality can best be conceptualised as similar to an attitude and can be operationalised by the adequacy-importance model. As such, they stressed that the most appropriate method for measuring service quality should be the capture of consumer opinions of the service performance levels only, as opposed to the 'performance minus expectations'

method proposed by the SERVQUAL model. Hence, the SERVPERF model specifically focused on only capturing and measuring service quality based on consumer's assessment of the service performance standards delivered by the service providers. Further, with evidence from Cronin and Taylor (1992), empirical studies on four industries proved that the SERVPERF model provided more reliable and valid results as compared to the SERVQUAL model, which only had a good fit and match in two industries. The same service performance measurement statements were used in both studies, but the key difference was that they did not make use of the expectations component of the SERVQUAL instrument, which was deemed unnecessary by Cronin and Taylor, (1992). In a counter argument, Parasuraman et al., (1994) stipulated that there is evidence of empirical support that measuring consumers' expectations of the service is of critical importance, without which consumers will not be able to benchmark the service received. Further, Parasuraman et al., (1994), pointed to the empirical studies by Bolton and Drew (1991) and Zeithmal et al., (1991), which are in agreement with their proposition of the importance of the expectations component of their disconfirmation point of view. Bolton and Drew (1991), in their empirical study of a telephone user's company found and concluded that the gap between perception and anticipation predetermines service quality. Therefore, it is critical in evaluating to establish the practical value of SERVQUAL in relation to SERVPERF, whether the focal point for managers is to actually identify service quality shortcomings or to gain an understanding and explanation of mismatches in the overall measurement of the levels of perceived service quality (ibid).

Another service quality measurement tool, the non-difference score measure model, was developed by Brown et al., (1993) to assess perceived service quality. Brown et al., (1993) stipulated that the tabulation of a difference score in the SERVQUAL measure might create several psychometric problems and, as such, a non-difference score measure might be more appropriate. Brown et al., (1993, p37), stated that, '*The reliability of SERVQUAL was below that of the non-difference score measure; SERVQUAL could not achieve discriminant validity but a non-difference score displayed better discriminant validity. Variance restriction effects were exhibited in using SERVQUAL and a non-difference score measure outperformed SERVQUAL on other psychometric considerations while requiring subjects to respond to only half as many items*'. Parasuraman et al., (1994) countered this criticism of SERVQUAL's difference score conceptualisation was debatable, because their own empirical studies found that SERVQUAL showed high reliability scores and also that stronger discriminant validity scores were superior through correlations with consumer discontent.

Kong and Muthusamy (2011), argue that the SERVQUAL model assumes a linear relationship between customer satisfaction and service attribute performances, which they believe incorrect, arguing that that service quality is asymmetric and changeable. For example, they argued that the level of satisfaction is independent from the level of dissatisfaction – therefore, suggesting the one-dimensional 'disconfirmation theory' is also an ineffective way to measure the level of service quality. Thereby supporting the perceived service quality model developed by Grönroos (1993), where expectations are considered as a function of market communication, image, word of mouth, and consumer needs and learning, whereas experience is a product of a technical and functional quality, which is filtered through the image, and any disconfirmation here result in perceived service quality gap. Kong and Muthisamy (2011), further argued that Grönroos's model is more applicable to higher education, as it incorporates students as partners of education. Further, they have also incorporated aspects of Kano et al's., (1984) model to support their study by suggesting

that not all service quality dimensions are linear. Kong and Muthusamy (2011), argue an approach similar to Kano's theory is required to categorise dimensions into; must-be or basic attributes, performance attributes, attractive attributes, indifferent attributes and reverse attributes. Therefore, by combining both Grönroos's (1993) and Kano et al's (1984) models, Kong and Muthusamy (2011), identified academic knowledge and skills, academic courses and programmes, and social/career opportunities as technical quality aspects, and academic facilities, academic provision for staff, and academic provision for courses as functional quality aspects, and environment, accommodation, general facilities and student support as quality of peripheral products. Erto et al., (2011) also agreed with the concept where they have identified non-linear relationship between dimensions and the importance of prioritising customer needs, albeit in the hotel services industry. However, these findings can be countered by Weighted SERVQUAL, where customers are requested to weight the importance of each of these service quality dimensions, and these will then be considered to determine the importance of each dimension to the customer base (Brochado, 2009).

As seen from the discussion above the SERVQUAL model has come under great scrutiny by various researchers. However, in most instances the criticisms are subjective and relevant to the application of a variety of service sectors and circumstances. It is indeed, not feasible to have one tool to measure service quality across a wide spectrum of organisations and sectors. The section below, aims to look at several doctoral studies conducted in this area, and how these studies have adapted the SERVQUAL model and its constructs.

4.5 Current Doctoral literature

A research into the existing Doctoral research revealed that many researchers analysed aspects of service quality and total quality management (Smith, 1995; David, 2004; James, 2000; Tambi, 2000; Drennan, 2000; Maria, 2006).

Several doctoral researchers attempted, using various service quality models, to determine the level of quality delivered by educational institutions. For example, Maria (2006) researched the service quality variables on student satisfaction and their experience at a higher educational institution in the UK using Q-Methodology, and categorised the dimensions into physical quality which includes aspects such as general services, teaching and learning facilities, accommodation; interactive quality which includes academic instruction, guidance, interaction with staff and students, and finally corporate quality which covers recognition, reputation and value for money.

Maria (2006: p 64) stated that, '*the personnel structure in higher education included mainly administrative and academic staff. Students are constantly in contact with them and the adequate communication and coordination between these two significant groups is essential to ensure appropriate quality of service for students*'. Even though the research findings were valid and reliable, the study was only aimed at international students studying at a University in the UK. Sallis (1994) argued that quality management in education is much more than league tables and government quality standards. Sallis (1994: p 82) stated that, '*In order to make sense of quality measurement [within the educational sector] performance indicators have to have regard for the definitions of quality. Simple league tables are underpinned by the elitist and excellence notions of*

quality, and so institutions need to develop other approaches to make judgements about the success of their quality processes.'

Lomas (2000) analysed the quality of higher education integrating several quality management standards such as the ISO 9000 series, the charter mark, investors in people, total quality management as well as the standards set for higher education in the UK by non-governmental organisations such as the Higher Education Quality Council, the Higher Education Funding Council for England, the Quality Assurance Agency for Higher Education. He researched staff attitude towards quality and improving quality within the higher educational sector in the UK, whereas the study was focused on staff perceptions at seven publicly funded higher educational institutions in the UK. The conclusions supported the general consensus that quality is influenced by the strategy, structure and culture of these organisations, as well as more significantly the organisational culture, which can have a major influence of the perception of quality (Basim, 2002; Sallis, 1994; Abdullah, 2006a; Abouchedid & Nasser, 2004; Angell et al., 2008).

Lomas (2000: p 229) stated that, '*the terms 'standards' and 'quality' are often used interchangeably. Standards are outcome rather than process measures and are more absolutist than most measures of quality*'. It is imperative from the discussion above, that it is impossible to set one quality benchmark to fit all organisations. The measures of quality must be specific to the sector and preferably to the organisational culture, strategy and structure (Lomas, 2002; Sallies, 1994; Basim, 2002; Clarke et al., 2007; Charlene, 2000).

Basim (2002: p 216), agrees with Lomas (2000) and stated, '*all organisations are permeated with a unique culture. It comprises the members' shared values, beliefs, customs, organised experiences, norms, behaviour, and the like. Quality assurance connotes a particular kind of culture and requires an appropriate cultural milieu. The leaders should try to anticipate hidden pockets of resistance or non-cooperation'.* Basim (2002), also argues that the application of standards that were developed for product oriented industries are not suitable for higher educational institutions and forceful application of such standards are counterproductive. Further Basim (2002) cites the work of Jauch and Orwig (1997) with the following comparisons to argue why principles of total quality management (TQM) cannot be directly applied to higher education (HE):

> **Continuous improvement**: While TQM assumes continuous slow change is superior to quantum change, it is believed in HE that significant advances in research occur in quantum jumps;

> **Benchmarking:** TQM assumes that the best practices can be emulated. In HE it is believed that there is no one best way of teaching and learning styles;

> **Reduce variability:** Raw materials are passive and the manufacturer performs, to the best of their ability, the same operations. In teaching, the students are the raw materials, they vary in intelligence. Extinction of teacher and student variability is neither possible, nor desirable;

> **Customer focus**: In TQM the customer can be easily identified however in education, multiple customers exist

> **Team effort:** TOM assumes that employees will participate and teamwork is possible. But in teaching the faculty are fiercely independent and rely on their own expertise.

As discussed above, several doctoral studies indeed incorporated the SERVQUAL model and its measures (Basim, 2002; Herguner, 1995; Maria, 2006; Simith, 1995), to support their research. However none of these studies were focused on independent educational institutions in the UK, and many private sector applications were limited to overseas institutions (Herguner, 1995; Basim, 2002). Therefore the section below, and building further from chapter 2, aims to identify specific gaps in the models identified above in terms of their applicability to private colleges in the UK.

4.6 Service quality models and private colleges in the UK

The discussions so far in this chapter have revealed wider application and discussions of the SERVQUAL instrument at a diverse variety of sectors. However, evidence of the SERVQUAL model's application within the private college sector in UK was not found by the researcher, after a detailed analysis of variety of databases. The previous, phenomenological study carried out by the author using SERVQUAL dimensions at one of the large independent colleges in the UK was inconclusive, with many students identifying the standard SERVQUAL dimensions as not specifically relevant for their decision-making and expectations (Arachchige, 2008). For example, students were not expecting their independent college to have large library facilities, lecture theatres and auditoriums, high profile lecturers and so on, but instead they expected to have easy access to study locations, flexible timetables and smaller class sizes (ibid).

According to the study conducted by StudyUK (2012) it was identified that students at independent colleges are likely to study for a relatively short period compared to state colleges and universities, with relatively lower financial risks. Further many students at private colleges take part time and weekend qualifications, and are sponsored by their employers. As a result, students are likely to have different expectations, as opposed to those students who are studying at a state funded educational institution (Arachchige, 2008).

Further, as discussed in chapter 2, private colleges are more commercially driven. Therefore, the costs of managing and prioritising service quality within those institutions are closely linked to the profitability and return on investments (Abdullah, 2006b). In general, most of the literature reviewed failed to discuss the actual financial cost in delivering service quality. This is indeed a key aspect for any organisation, whether it is state funded or private, but can be more relevant to private colleges due to their commercial nature. It is therefore essential to understand and identify which one of the service quality dimensions can improve financial value to the organisation, as well as to the customer. As Parasuraman (2002: p 6), stated, '*not as well understood or researched are the costs of doing so, which are of critical concern to practitioners facing increasing pressure to improve productivity and profits*'. Therefore, any service quality model should be able to identify key areas that are critical for customer expectations as well as organisational productivity and profitability (Parasuraman, 2002). For example, having fewer students in a seminar may lead to a higher level of tutor and student interaction, which can lead to better student satisfaction. However, in organisational terms, this represents a lower level of productivity for the tutor, as the tutor's productivity improves as does the institution's return of investment, when they deliver a seminar to a larger audience (Abdullah, 2006d). This yet again, brings back the argument made by Bitner et al., (2007) of customer participation in service delivery as a way to enhance the overall service quality, as well as Oldfield and Baron's (2000) view of improving processes and physical

evidence as criterion for service quality. However, the balance of improving service quality and organisational return on investment can be a daunting proposition to manage (Abdullah, 2006d).

Further, Parasuraman (2002: p 8), identified five critical questions that institutions must ask themselves in order to get the right balance between service quality, productivity and customer participation; what inputs do we and our customers currently channel into our service processes?, in what ways are changes in our inputs likely to affect customer inputs and perceptions of service quality?, are we allocating our input resources in a manner that is consistent with customer priorities?, in evaluating the results of our service operations, do we define the outcomes sufficiently broadly and from the perspective of our customers' as well?, what is the nature and extent of the association between the outcomes experienced by our customers and realised by us?. For private colleges in the UK, these questions are indeed more relevant, and therefore having the right balance between meeting student expectations as well as meeting organisational commercial objectives is an important process to manage (Arachchige, 2008).

What is evident so far is that none of these modules, SERVQUAL, SERVPERF or HEdPERF, are entirely appropriate to measure service quality within private colleges in the UK. Parasuraman et al., (1985: p 42) stated that, '*with neither SERVQUAL nor SERVPERF deemed entirely appropriate in their applicability to higher education, a measure of how well the service level delivered, matches customer expectations*'.

4.7 Chapter Summary

This chapter looked at a variety of service quality models that have been commonly used by researchers with specific focus on the models that have used the disconfirmation paradigm. Models that have used non-disconfirmation paradigm, such as Nordic models have been discussed with a view to identifying the most applicable concept to this research.

As a key cornerstone model, the SERVQUAL model was analysed in detail to understand its application of the disconfirmation theory as well as a gap model in measuring perceived service quality. Secondary developments of the SERVQUAL model, such as HEdPERF and SERVPERF, as well as other SERVQUAL modifications and how these modifications have been made to fit the needs of a variety of sectors have been analysed in detail.

Further, several weaknesses of the SERVQUAL concept were discussed, along with how the developers of the SERVQUAL model defended these criticisms; before finally looking at several doctoral studies in this area to understand the application of quality models.

This chapter was concluded by discussing the relevance of the SERVQUAL concept and the five service quality dimensions within the private college sector in the UK.

Conclusion to Section 1: Context and the purpose of the research

As discussed at the beginning of chapter one, the first four chapters of this report are aimed at providing a context and the purpose of the research. The four chapters in this section, are aimed to achieve four objectives (as below).

The objectives set at the beginning of section one and how this report achieves these objectives can be described as follows:

To understand the aims and objectives of this research and how this study fits within the broader debates of quality, service quality and quality management;

This objective has been achieved by initially identifying the context of this study (chapter 1), and then having an extensive discussion of quality and service quality and quality management, which was covered in chapter three.

To critically understand the recent developments of private colleges in the UK and an assessment of the current market conditions, and possible future developments;

This objective was covered in chapter two, where this report looked at the nature and modern history of private colleges in the UK, by linking several reports published by governmental departments as well as interviews with several experts within the private college sector in the UK.

To critically understand the meaning of quality and service quality and how these terms have been developed during the last few decades, and key assumptions and arguments in the area;

This objective was covered in chapter three where this report looked at early concepts of quality, how these initial product based quality concepts developed into areas such as total quality management, quality function deployment as well as customer driven quality management, before finally looking at service quality management.

To critically examine the service quality models commonly used in the assessment of quality of education and their respective features.

This objective was covered in chapter four, where this report looked at various quality management models including both Nordic models as well as American models. The gap based SERVQUAL model, developed by Parasuraman et al., (1985), was identified as the most commonly used model, with its application of disconfirmation theory and gap model. Further developments and modifications of the SERVQUAL model, including HEdPERF and SERVPERF, were discussed in terms of their application within the education sector.

Now, this report has established the context and the purpose of this research, the next section, which comprises of three chapters, will specifically look at the methodology and the initial development of the service quality model for private colleges in the UK.

Chapter 5:

Research Methodology
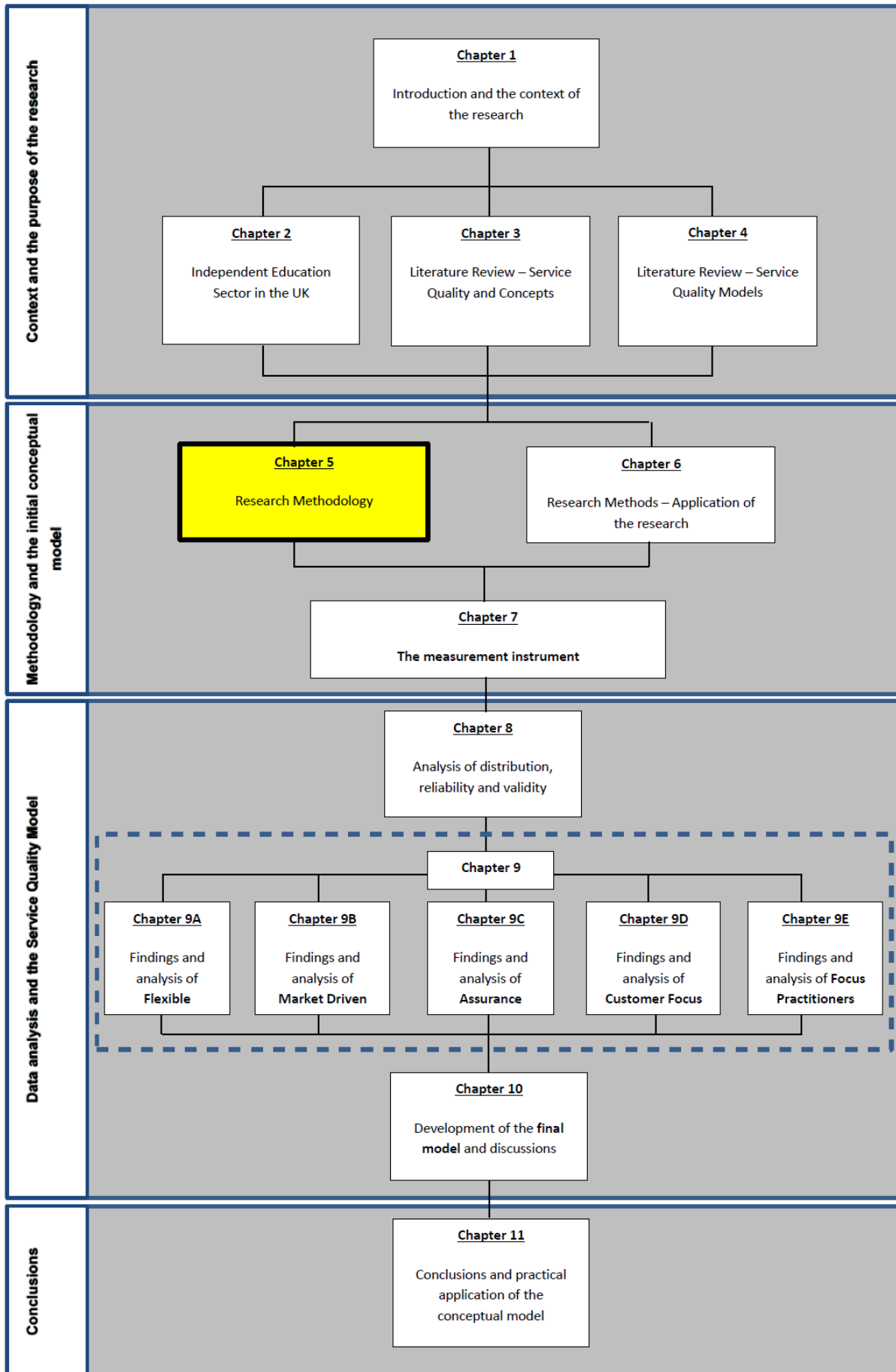
Introduction to Section 2: Methodology and the initial conceptual model

Building from the first section of the context and the purpose of the research, the next three chapters of this report form the second section, the methodology and the initial conceptual module.

The aim of this section is to:

- Understand the researcher's ontological and epistemological views and how they have influenced the choice of research philosophy, strategy and methods?
- Understand how the methodology applied in conducting focus groups, expert panel interviews, pilot studies as well as poof reading activities;
- Develop the initial conceptual model and the survey instrument, and how the survey instrument has been distributed amongst the population?

In order to achieve the section objectives above, this section has been divided into three chapters, with chapter five looking at the research methodology; chapter six focusing on the implementation of the research strategy in forming the initial conceptual model; and the final chapter looking at the measurement instrument and the rationale behind the individual statements within that instrument.

5.0 Chapter introduction

This chapter forms the first part of section two of the report as described on the previous page, Therefore, the aim of this chapter is to explain the research methodology adopted in the study at a strategic level. Starting from concepts such as ontology and epistemology, this chapter proposes to demonstrate the researcher's attitude and thinking of research methodology.

Further, this chapter specifically looks at different research philosophies in general, and critical realism, in particular, as the chosen philosophy.

Building on the concepts above, this chapter will also look at the research approach, strategy, methods as well as different types of data collection methods, with finally looking at different sampling techniques.

Looking into the development process of a conceptual model, this chapter will also look at a variety of models adopted by previous researchers in this area, as well as possible statistical analysis methods that can be used to conduct data analysis, by discussion of both parametric and non-parametric statistical analysis and their relevance to a Likert-type scale.

5.1 Ontology

Fleetwood (2005) suggested that when undertaking an empirical research, it is important to consider different research paradigms and matters of ontology and epistemology, as these terms describe and explain the researcher's perceptions, beliefs, assumptions as well as the nature of reality, truth and knowledge in relation to the research.

Ontology helps to understand the fundamental beliefs that a person holds about the nature of society and the social word and its relationship to the individuals within the society and the wider society (Blaikie, 1993). Saunders et al., (2009) described that a researcher's ontological assumptions can influence the way in which the research is carried out, from the initial design through to final conclusions. It is therefore important to understand and discuss these aspects in order that approaches are congruent to the nature and aims of the particular research, and therefore to ensure that researchers' ontological biases are understood, exposed, and minimised, where applicable (Yates, 2004).

Blaikie (1993: p 8) further describes ontology as, '*the science or study of being' and further developed this thought by claiming that ontology refers to 'claims about what exists, what it looks like, what units make it up and how these units interact with each other'*. On the other hand, Bryman (2001), described ontology as concerned with the nature of being and the interaction between social structures and individuals. Therefore, ontology describes our view - whether claims or assumptions - on the nature of reality, and specifically, whether it is an objective where the reality exists independently from social factors, or a subjective reality, or constructive reality, where the reality is created in our minds or by the individuals within the society (Sayer, 2000).

In line with Sayer's (2000) descriptions above, Bryman (2001) distinguishes the two main ontological positions as objectivism and constructionism, whereby objectivism based assumptions are where a social phenomenon and their meaning have an existence that is independent of society and individuals, implying that structures within the social world are objective entities that are not

influenced by individuals or other social factors. Bryman (2001) further linked objectivism with positivism and natural science disciplines and seeks to explain situations and link causal variables; thereby describing the objectivism where the world exists outside the social and individual interferences (Sayer, 2000). Yates (2004) explained that constructivism. also referred to as subjectivism, plays an active role in constructing social reality and social structures, and these social phenomena are in a constant state of flux as individuals and society changes. Therefore, the sociality and individuals within society create their own reality, and that reality exists within the individuals or the society itself, a description agreed by Blaikie, (1993). Bryman (2001) linked constructivism with an interpretative approach as it seeks to understand the meaning of ascribing to social entities, therefore supporting the view that reality is precisely socially constructed, and may not necessarily be fully by an individual.

As a result, this research believes that we all have a number of deeply embedded ontological assumptions and beliefs of what is reality, whether they are subjective or objective, which will affect our view of what is real, what is reality, as well as whether we attribute existence to one set of things over another. If these underlying assumptions are not identified and considered, according to Bryman (2001), the researcher may be blinded to certain aspects of the inquiry or certain phenomena, since they are implicitly assumed, and therefore not open to question, consideration or discussion. A researcher's ontological position and understanding are naturally closely linked to knowledge, and how what is real is translated to knowledge (Cooper et al., 1999).

5.2 Knowledge and epistemology

By taking into account the above ontological positions in regards to what constitutes reality, another question must be how that reality is measured and what constitutes knowledge of that reality. This leads to questions of epistemology. According to Bryman (2001), epistemology refers to the nature of knowing and construction of knowledge, and is closely linked with ontology and its consideration of what constitutes reality. Therefore, epistemology considers views about the most appropriate ways of enquiring into the nature of society and what is knowledge, and what are the sources and limits of knowledge (ibid). Blaikie (1993) describes epistemology as the theory or science of the method or grounds of knowledge, expanding this into a set of claims or assumptions about the ways in which it is possible to gain knowledge of reality; how what exists may be known; what can be known; and what criteria must be satisfied in order to be described as knowledge. According to Lee (1991), if the researcher holds certain ontological positions or assumptions, these may influence the epistemological choices or conclusions drawn. Hence, as with ontology, both objective and subjective, or constructive, epistemological views exist. Eriksson and Kovalainen (2008) describe an objective epistemology as presuming that a world exists, whereas, a subjective epistemological view is that there is no access to the external world beyond our own observations and interpretations. It can be argued that data collected from objects that exist separately to the researcher, an external reality, is less open to bias and therefore more objective, and that if social phenomena are studied, these must be presented in a statistical, rather than narrative, form in order to hold any authority. This is a position, of course, that many researchers would challenge. Saunders et al., (2003) and Blaikie (1993) contend that since social research involves so many choices, the opportunity for researchers' values and preferences to influence the process make it difficult to ultimately achieve true objectivity.

It is important to understand the concept of knowledge and what is the best way to acquire knowledge. A commonly held view amongst authors in the field, with minor variances in what they say, is that data is raw numbers and facts, information is processed data, and knowledge is authenticated information (Dretske, 1981; Vance, 1997; Alavi and Leidner, 2001). However, Davenport and Prusak's (1998) definition of knowledge goes far beyond this. They state that knowledge is a fluid mix of framed experiences, values, contextual information, and expert insights that provide a framework for evaluating and incorporating new experiences and information. The notion of knowledge is a complex topic with many different definitions from diverse fields that range from cognitive sciences, management, philosophy, theology and knowledge engineering. Davenport and Prusak (2000) described that knowledge is a fluid mix of framed experiences, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information; it originates and is applied in the minds of knowers. In organisations, it often becomes embedded not only in documents or repositories, i.e., organisational systems, but also in organisational routines, processes, practices, and norms i.e., organisational culture.

Dretske (1981) distinguishes knowledge into tacit and explicit, in line with epistemological viewpoints. Unlike tacit knowledge, explicit knowledge can be expressed and codified easily in organisations.   Explicit knowledge is about knowing something and it is regarded as objective knowledge, whereas tacit knowledge is related to knowing how to do something, which is much more subjective in nature. Sanchez (2001) outlined the characteristics of explicit and tacit knowledge as:

Explicit knowledge	Tacit knowledge
• Objective knowledge	• Subjective knowledge
• Rationalisation of facts and formal methods	• Systems of ideas, perceptions and experience
• Easy to codify, transfer and reuse	• Difficult to transfer

Table 11: Characteristics of explicit and tacit knowledge

As shown in the table above, explicit and tacit knowledge can be seen as two separate elements of how to acquire and apply knowledge. Explicit knowledge is considered as objective knowledge and on the other hand tacit knowledge is subjective, to the individual. Therefore, tacit knowledge is difficult to transfer, as it is combination of personal traits that are specific to that individual, whereas explicit knowledge, due to its objectivity, is easy to codify and transfer, for example, an established academic theory (ibid).

Alavi and Leidner (2001) claim that some researchers attempt to highlight that tacit knowledge is more valuable than explicit knowledge or vice versa.   The two are not dichotomous states of knowledge, but rather mutually dependent and are the reinforcing qualities of knowledge. Tacit knowledge forms the background necessary for assigning the structure to develop and interpret explicit knowledge (Polanyi, 1975).   The inseparable linkage between tacit and explicit knowledge

suggests that only individuals with a requisite level of shared knowledge can truly exchange knowledge.   An understanding of these concepts is important because theoretical developments in the knowledge management area are influenced by the distinction amongst the different types of knowledge (Alavi and Leidner, 2001).

5.3 Research paradigm

Cooper et al., (1999) describes that the researcher's ontological and epistemological views lead to a research paradigm of a philosophy. On the basis of these views, research paradigm can fall into three categories as: positivist (classical), interpretative/ constructivist (classical) and realist (contemporary).

The following diagram adapted from Saunders et al. (2009: p 13) illustrates how these different research philosophies integrate into a full research design.
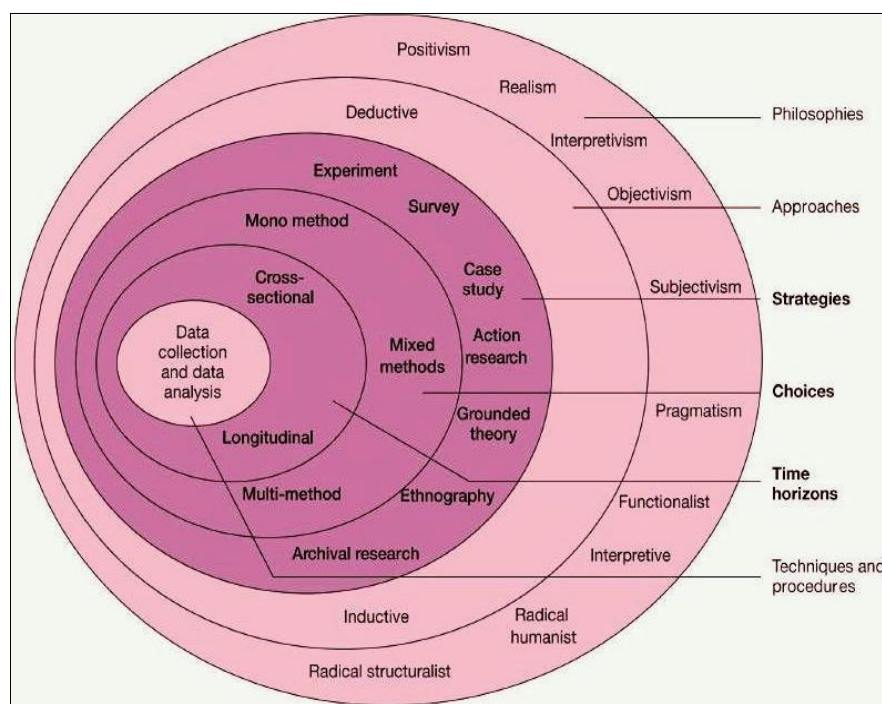
Diagram 6: the research design (research onion)

As illustrated by Saunders et al. (2009) above, the overall research design can be considered a linear process of decisions. Whereas the researcher commences by understanding his or her research philosophies, as derived from the researcher's views of ontology and epistemology, which will then determine the approaches, strategies, choice, time horizons and finally techniques and procedures. The next section of this chapter is focused on different research philosophies and the researcher's view of those philosophies.

5.4 Research philosophy - positivism

The term 'positivism' is discussed in different ways by different authors (Cooper et al., 1999; Collis and Hussey, 2003). The positivist position is derived from that of natural science and is characterised by the testing of hypotheses that are developed from existing theory through the measurement of observable social realities. This position presumes that the social world exists objectively and externally; that knowledge is valid only if it is based on observations of this external reality; and that universal or general laws exist. Theoretical models can be developed that are generalisable; therefore explaining the cause and effect relationships, and which lend themselves to predicting certain predictable outcomes. For example, positivism philosophy is based upon values of reason, truth and validity and there is a focus purely on facts, usually gathered through direct observation and experience, and measured empirically using mostly quantitative methods, such as surveys, experiments and statistical analysis (Blaikie, 1993; Saunders et al., 2009; Eriksson and Kovalainen, 2008). Further positivists also assume that what truly happens in society can only be discovered through categorisation and scientific measurement of the behaviour of people and systems. Saunders et al., (2003) describes positivism as an empirical, quantitative approach. Although the main thrust of positivism is quantitative, there have been cases of qualitative positivism - in which hypothesis testing is used to discover relationships and facts that are generalisable to the population, which includes logical empiricism, covering law model, behaviourism, psychodynamic and developmental. It is involved in the application of the methods of the natural sciences to the study of social reality (Lee, 1991).

Positivism is further associated with a position which asserts the importance of replicating the natural science methods to the study of social reality (Blaikie, 1993). Under positivistic ideology, ideas can be considered knowledge only after they are subjected to the testing through our senses. Therefore, according to positivistic research, all researchers, even with different values, will reach the same conclusions from the same data because the science must be conducted in a value-free way, and independent from society (Saunders et al., 2003). There is a status of a greater implication to observation and then to theory, since the role of research is to test theories and provide material for the development of laws. A positivist approach has the tendency to disregard the subjective experience of the unexpected occurrences and the meaning that the behaviour is because it only studies the objective features of a phenomenon. Positivism is always connected to the position that confirms the significance of emulating the natural sciences. Positivism further emphasises the importance of an objective scientific method. These researchers see their role as collecting facts and then studying the relationship of one set of facts with another (Collis and Hussey, 2003). They then analyse quantitative data using statistically valid techniques and produce quantifiable and generalisable conclusions, which are repeatable under the same conditions. Positivism also stresses the importance of studying social and organisational realities in a scientific way that mirrors the research processes used in the natural sciences (Eriksson and Kovalainen, 2008).

5.5 Research philosophy – interpretivism

On the other hand, interpretivism is concerned with understanding individual's perceptions of the world. Interpretivists see facts as the product of human interactions, as they are the product of shared understandings and meanings and are not always predictable. In the social world it is argued that individuals and groups make sense of situations based upon their individual experience,

memories, beliefs, perceptions and expectations (Collis and Hussey, 2003). Meaning, therefore, is constructed and constantly re-constructed through experience, resulting in many differing interpretations of a scenario. Interpretivists believe that these multiple interpretations create a social reality in which people act. According to Eriksson and Kovalainen, (2008), under this paradigm, therefore, it is seen as important to discover and understand these meanings and the contextual factors that influence, determine and affect the interpretations reached by different individuals and not necessarily based on observable facts. Intepretivists further consider that there are multiple realities that exists for a given social phenomena. Since all knowledge is relative to the individual that interprets that knowledge, interpretivists aim to work alongside others as they make sense of, draw meaning from, and create their realities in order to understand their points of view, and to interpret these experiences in the context of the researcher's academic experience (Hatch and Cunliffe, 2006).

The less quantifiable and subjective interpretations, reasoning, and feelings of individuals are seen as a more relevant line of enquiry in order to understand and explain the phenomena. Therefore, the focus of interpretivism is not on numbers, but on words and understanding (Saunders et al., 2007). Interpretivism believes that a research strategy for social sciences has to respect the differences between the objects that are studied in the natural sciences and the people. It is therefore an epistemological opposite to positivism. Further, interpretivists believe that the study of the social world needs a different outlook of research procedures, one that reflects the dissimilarity from the world of nature to individuals (Eriksson and Kovalainen, 2008). Therefore, there is a division between the inclination for an understanding and interpretation of human behaviour, who oppose positivism, and an emphasis on the explanation of human behaviour - which is the main idea of a positivist approach to the social sciences – when compared with natural sciences. According to Collis and Hussey, (2003) this debate leads to the emergence of modern social science theory and the understanding of social phenomena.

Interpretivists believe that the job of social scientists is to gain access to people's common sense thinking and interpret their actions and social world from their own point of view and understanding of the phenomenon. It is a position which requires the social scientists to recognise the subjective meaning of social action and gain further understanding. The focus of the researcher is therefore on the understanding of the meanings and interpretations of 'social actors' and to understand the world from their point of view, and as this is highly contextual to that particular circumstance and to that particular individual, these observations are therefore not widely generalisable (Saunders et al., 2007). Further, under interpretivism philosophy, the understanding of what people are thinking and feeling, as well as how they communicate verbally and non-verbally are considered important. Given the subjective nature of this philosophy, and the emphasis on language, it is generally associated with qualitative approaches to data gathering, such as observations and case studies (Eriksson and Kovalainen, 2008). As a result, there is a close relationship between the researcher and the research is paramount in the findings and outcomes. It is evident that interpretivism has more of an influence on qualitative researchers, which generally assume a phenomenon rather than demonstrate outcomes using facts. It further holds the view that all acquired knowledge is derived from interpretation, by studying what people do, how people act, think and what is important to them within their personal and social context (ibid).

5.6 Research philosophy - realism

The contracts between positivism and interpretivism naturally leaves a gap in our thinking of how social and natural science research can work together to have a better understanding of a given phenomenon, which leads discussions into the third philosophical position of realism. According to Blaikie (1993), realism, similar to positivism, assumes an external reality where researchers' should have their attention directed. Realists also share the belief that the natural and social sciences can use the same methods to collect data of a given phenomenon. However, realists admit the theoretical terms are not directly witnessed in their explanations and findings. Realists further recognise that a reality exists independently of the senses, but available to the researcher's theoretical suppositions and tools when observed correctly. Realism therefore takes aspects from both positivist and interpretivist positions. It holds that real structures exist independent from human consciousness, but that knowledge is socially created, with Saunders et al., (2007) contending that our knowledge of reality is a result of social conditioning. According to Blaikie (1993), whilst realism is concerned with what kinds of things there are and how these things behave, it accepts that reality may exist in spite of science or observation, and so there is validity in recognising realities that are simply claimed to exist, whether scientifically proven or not.

In line with interpretivist positions, realism recognises that natural and social sciences are different, and that social reality is pre-interpreted. However realists, in line with the positivist position, also hold that science must be empirically-based, rational and objective and so it argues that social objects may be studied scientifically as social objects, not simply through language and discourse (Blaikie, 1993). Whereas, positivists believe that direct causal relationships exist, that these relationships apply universally and ultimately lead to prediction, and that the underlying mechanisms can be understood through observation and facts. Whereas, realists take the view that the underlying mechanisms are simply the powers or tendencies that things have to act in a certain way, and that other factors may moderate these tendencies depending upon circumstances. Hence the focus is more on understanding and explanation than prediction, and therefore lacks generalisability (Saunders et al., 2007).

From an organisational perspective, Hatch and Cunliffe (2006) describe the realist researcher as enquiring into the mechanisms and structures that underline institutional forms and practices, and how these practices emerge over time, how they might empower staff, and how such forms and practices may be critiqued and changed. Realists take the view that researching from different angles and at multiple levels can contribute to a better understanding, as reality can exist on multiple levels. Realism may therefore be seen as inductive or theory building, as opposed to validating existing theories.

Finally, all three research paradigms - positivism, realism, and interpretivism - explain three generally different points of views. Positivism supports that natural science methods can be applied to the study of social reality; realism states that reality could be understood through natural science methods; and interpretivism understands how people create and maintain their social worlds through a detailed observation of people in natural settings (Blaikie, 1993).

In the context of this study, it can be argued that both observable (factual) as well as individuals' beliefs and perceptions are involved when observing aspects such as service quality. Therefore, it is

worth exploring further the concept of realism and to understand its sub-branches of this philosophy and how they are more applicable to this study.

5.7 Critical realism

According to Hatch and Cunliffe (2006), there are two types of realism: empirical realism and critical realism. Empirical realism is also known as naïve realism, which merely affirms that reality can be understood with the proper use of methods and tools. On the other hand, critical realism is more specific and believes that there are deeper structures which lie beneath those observable patterns (ibid).

Critical realism itself implies two things; firstly, categories of which imply understandings of reality are temporary and that a researcher's view of reality may not necessarily match with the actual reality. Secondly, it distinguishes between objects which are a focus of research, and the terms used to understand and describe it (Hatch and Cunliffe, 2006).

Critical realism can be considered as another philosophical position which provides another proposition on the nature of scientific practice. Critical realism can be considered as an epistemology, which emphasises that the study of the social world should be apprehensive with the identification of structures that produce the world and wider society (Bhaskar, 1975).

This study supports critical realism and the views and studies of Bhaskar (1975, 1978 and 1989), where it is believed that there is an ontological distinction between scientific laws (objectivism) and patterns of events (constructivism) and that the notion of reality consists of three positions; the empirical, the actual and the real positions.

Bhaskar (1978: p 13) described these positions as follows:

	Domain of Real	Domain of Actual	Domain of Empirical
Mechanisms	X		
Events	X	X	
Experiences	X	X	X

Table 12: three positions of reality

As seen from the table above, Bhaskar (1978) explained that the domain of the real refers to agencies that are independent of both mind and society. The domain of the actual refers to events that take place. While the domain of the empirical refers to what is observed or sensed by human beings. Bhaskar (1978) further describes that agencies belonging to the domain of the real consists of what he calls 'generative mechanisms' or 'causal mechanisms'. The generative mechanisms are mind- and society independent in the sense that they function or act regardless of whether or not anyone observes them. Bhaskar (1978) argued that these generative mechanisms are intransitive to the humans, meaning they are independent of minds and the social, and believes that the task of science is to explore the realm of real and how it relates to the other two domains. Therefore, this study believes that reality can exist outside pure objectivism as well as constructivism, whereas the deeper understanding of mechanisms will be the basis of reality (Coller, 1994).

5.8 Research approach

Research approach is another vital issue when conducting any research because appropriate research approach can make the research findings representative of the reality. Selecting the right research approach is fundamental to test the hypothesis or build a theory. According to Saunders et al., (2009), research approach depends on the nature and type of the research problem and the phenomenon. The selection depends on the researcher's ontological, epistemological and philosophical positions, as they are closely linked with the reality and the observation of the phenomenon. According to Saunders et al., (2009), there are two research approaches as follows:

Research approaches	Implications
Deductive	Deductive approaches are used when the researcher intends to develop a hypothesis and theory by analysing the collected data and information. According to Saunders et al., (2009), the researcher wants to develop the conceptual and theoretical framework through the process of developing hypothesis testing in this approach.
Inductive	This approach is employed when the researcher intends to understand the human attached events, and usually the nature of data is qualitative. Further, in inductive reasoning, the researcher usually uses a flexible structure for conducting the research.

Table 13: research approaches: inductive and deductive

As described in the table above, this research intends to use both inductive and deductive approaches, as the study consists of three stages, as described in 1.7, table 1. Whereas during stage one, this study intends to understand the context of the private education sector and complete an exploratory analysis of models available at present, stage two intends to gather qualitative data to build an initial conceptual model, and the final stage aims to test that model's reliability and validly to measure the social phenomenon. Therefore, stage two uses a more inductive based approach and the final stage a deductive one. The next section explains the research strategy, data choices and data collection methods in detail.

5.9 Research strategy

The research strategy includes elements of data collection and interpretation and usually emerges from both the research purpose and question, as stated in Chapter 1. In research design, causality is vital for the researcher to predict patterns of behaviour (Putnam, 1983). Therefore, the research purpose is causal or predictive and the research strategy would typically involve using secondary data, survey techniques and classic experiments to gather data and arrive at conclusions (ibid).

This section of this chapter explains the overall research strategy adopted in this study and look at data collection strategies, types of data collected as well as how this study intends to analyse those collected data. Depending on the type of research strategy, a researcher will collect two types of data, which are qualitative and quantitative (Maxwell, 2008).

5.10 Qualitative and quantitative data

According to Maxwell (2008), qualitative approach is usually focused on specific situations or people and its base is on words rather than numbers. He also stated that there are two main sources of gathering qualitative data as in-depth interviews and group discussions. Other commonly used qualitative data collection methods include shadowing, classical ethnography and grounded theory practice. For the qualitative approach usually full sampling is used, in which particular settings, persons or events are selected. During qualitative research, data is gathered from a small number of individuals or small samples, rather than collecting data from large samples.

Maxwell (2008) also identified that qualitative research has long been used by survey and experimental researchers that are interested in identifying unexpected phenomena and influences, in line with their interpretivist principles. This type of study includes the method of data collection which inherits characteristics of object through investigation process, rather than numbers and facts. Therefore, the qualitative approach is seen as subjective, relating to experience or knowledge as conditioned by personal mental characteristics or states, and preferring language and description (ibid).

Qualitative research usually involves an inductive way of building a theory, as it put more prominence on the researcher, and his or her ontological and epistemological positions. Further, qualitative data requires being interpreted by the researcher, and it is important that the researcher is unbiased, therefore eliminating subjectivism from the study (Grix, 2004). On the other hand, a quantitative approach is used for examining specific phenomena in order to transform the available results to numerical data for analysis and conclusions, which are usually generalisable. In quantitative research researchers work through numerical data, by using these results, a researcher needs to classify or categorise the data variables for research that can further be symbolised in numbers or can be shown in numerical formats (Grix, 2004). For example, within management and organisational studies the quantitative approach is seen as objective, that is relating to phenomenon or conditions independent of individual thought and perceptible to all observers, and relying heavily of statistics and figures (Lee, 1992).

In the quantitative method, information is collected through involvement of all methods which use statistics and numeric values, such as surveys and observations. Therefore, in the quantitative research method, researchers involve the entire theoretical model empirically and get more precise,

valid and relevant information (ibid). A quantitative researcher is normally employed to uncover the relationship that exists between two or more measured quantities, by employing a deductive method (Densombe, 2000).

Such an approach is usually associated with large-scale studies and is related to the objectivity of the researcher. Quantitative methods usually involve empirical and systematic study of a social phenomenon by using computation, statistical or mathematical. In addition, in this method of researching researchers adopt theories, hypotheses and/or mathematical models to achieve research objectives (Erin and Leahey, 2008).

It is common to use both qualitative and qualitative options during studies, as it provides a more balanced view and enables the researcher to understand the phenomenon more effectively and accurately. Sometimes a combination of un-predictive and specific objective study approach is recommended to analyse the phenomenon for example with consumers' purchasing behaviour and their attitudes. This approach is even more relevant in this study of understanding and measuring service quality. This combinational approach also referred to as triangulation, views a phenomenon through different perspectives and in a sense leads to more accurate results. A result attained through the use of the two approaches gives a more comprehensive coverage of a research problem (ibid).

5.11 Exploratory, descriptive and explanatory research

According to Grix (2004), there are many ways of conducting research and these types can be classified according to the need of the research and its objectives. Researchers have broadly identified three approaches in understanding the phenomenon as exploratory, descriptive and explanatory and the selection of the approach usually depends on the objective and problem under consideration.

Exploratory research is employed in order to understand in detail the knowledge regarding the various problems, pertinent factors and decision choices that are needed to be applied effectively in the study (Yates, 2004). This technique starts as an overall approach directed towards the subjects beneath the researches. Here, in so far as data is gathered, this lacks the judgments on the utilisation of information. This approach recognises the essential grounds for research questions and elucidates numerous notions to aid novel techniques and measures. In this technique researchers collect data by means of hypothesis testing, team discussions and observations. This is essentially an 'open-ended' and 'elastic research' design (Grix, 2004). Further, exploratory research is usually conducted into an issue or problem where there are few or no earlier studies to refer to. The focus is therefore on gaining insights and familiarity for later investigation (ibid).

Descriptive research, on the other hand, simply applies the approach that addresses the issues regarding 'who', 'where', 'how' and 'what' kind of problems there are in the research. It additionally offers, in detail, data and knowledge to the research problems by describing a variety of factors. It could be employed for various reasons including investigation, forecasting, approximating, segmentations, and establishing and outlining the linked associations with the research. Therefore descriptive research can be described as a systematic technique that explains and monitors behaviours, of a detailed matter devoid of any influences (Yates, 2004) and is frequently employed as a forerunner to quantitative techniques. Descriptive research designs are a trustworthy and

suitable technique to research meticulous matters which generally describe a condition or a variance. Descriptive research also describes phenomena as they exist. Data is often quantitative, and statistical tools and models are applied, which are used to identify and obtain information on a particular problem or issue (Grix, 2004).

Finally, explanatory research design is a type of research design which depends on the assumptions made by the author, taking into consideration various models and theories based upon previous research done in the past. Through various monitoring activities assumptions are verified as true or false (Mills, 2010). Saunders et al., (2003: p 282) stated that, '*explanatory research will enable the researcher to examine and explain relationships between variables, in particular cause-and-effect relationships.*' Therefore, this type of research design mostly deals with the study of relationships instead of critically analysing the issue. The method of data collection used in exploratory research is mostly the quantitative method (Crowther and Lancaster, 2008).

In this study, the researcher employed exploratory research by conducting a wider literature review (as discussed in chapters two, three and four) to understand the existing literature and therefore assist in contextualising the research phenomenon. This was then followed up by explanatory research, using focus groups as a survey structure to gather data from the population. The section below explains the data collection method used in this study.

5.12 Data collection strategies

As outlined above, under qualitative and quantitative data, there are many ways in collecting data for research. Commonly used data collection tools and strategies include; questionnaires, surveys, checklists, interviews, document reviews, observations, focus groups and case studies (Mills, 2010). In many studies, researchers adapt more than one data collection method to gather a variety of quantitative, as well as qualitative data, to support the research and gain a wider understanding of the subject (ibid).

5.13 Multi method – interviews and survey

The mixing of methods in social research has been given many names, including blended research, integrative, multi-method, multiple methods, triangulated studies, ethnographic residual analysis, and mixed research (Harrison and Reilly, 2011). Harrison and Reilly, (2011: p 8) further described the difference between multi and mixed methods as '*multi-method which involve multiple types of qualitative inquiry (e.g. case study and ethnography) or multiple types of quantitative inquiry (surveys and experiments); and mixed methods which involve the mixing of the two types of data*'.

The development of the mixed method research can be traced back to the 1980s, when academic scholars began expressing concerns about the mixing of quantitative and qualitative data without articulating defensible reasons for doing so (Harrison and Reilly, 2011). Mixed method research has become the most popular term for mixing qualitative and quantitative data in a single study (Johnson et al., 2007). Further, the mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches. For example, the use of qualitative and quantitative viewpoints, data collection, analysis and inference techniques for the broad purpose of breadth and depth of understanding and corroboration (ibid). It is argued that mixed method research with its pragmatic approach does not

align itself with a single system or philosophy – as many scholars have seen a combination of natural and social science research (Creswell et al., 2003). Instead, it is most often driven by the research question itself, rather than being restrained by paradigmatic and philosophical assumptions (Johnson and Onwuegbuzie, 2004).

This study has used this technique more specifically in stage one, where a series of focus groups conducted to obtain qualitative data, followed by an online questionnaire to gather both qualitative as well as quantitative data.

5.14 Primary, secondary and tertiary data

Secondary data is useful for providing background information and theoretical support and in many instances supporting exploratory research as well as to support the primary research, the questionnaires used and in formulating hypotheses. Additionally, it is common that secondary data has been collected for purposes other than the immediate research to which it is being applied, with a view to gaining a wider understanding of the research area. As secondary data was not specific to colleges for the particular study, the examination of secondary data alone can never be enough on its own to support the research (Malhotra, 2006). In this study, a variety of secondary data sources have been used, including, but not limited to, the use of journal articles, books and website materials, along with other unpublished archives of individuals. Archived materials from individual diaries were specifically used in understanding the beginnings and development of private colleges in the UK.

Harrison and Reilly (2011) further identified tertiary sources as an additional category altogether, but many other authors, including Malhotra (2006), consider these tertiary sources as part of secondary data sources. According to Harrion and Reilly (2011), summaries or condensed versions of materials such as directories, handbooks and encyclopaedias can be considered as tertiary data. In these particular studies, directories published by both the UK Immigration authorities as well as the Department of Business Innovation and Skills were used to understand and define the size of the population.

On the other hand, primary data is considered more research specific and is collected mainly from empirical research. Primary research specific data is gathered with research objectives in mind by utilising a variety of methods including interviews, observations, questionnaires and group discussions (Malhotra, 2006). In this study, primary data has been collected via focus group discussions, expert panel feedback and an online questionnaire.

The following diagram summarises the links between research objectives and the data collection and type associated with those objectives.

Research objective	Data collection/type used
To investigate the key service quality dimensions that are relevant for independent education colleges in the UK	• Secondary Research – literature review involving a variety of published and unpublished sources, such as journal articles, text books, web sources as well as personal diaries of key personnel involved in the private education sector in the UK

	• Primary Research - Focus Group and expert panel involving students as well as sector experts.
To understand the degree of importance for each of these individual service quality dimensions in enhancing service quality within the sector	• Primary Research – online questionnaire and data analysis
To identify the quality gaps, and measure the customer, within the independent educational colleges in the UK	• Primary Research – questionnaire and data analysis • Statistical analysis techniques of reliability and validity
To develop an empirical model for measuring service quality for the independent education colleges in the UK	• Statistical equation modelling techniques such as IBM SPSS AMOS ®

Table 14: Research objectives and data collection methods

As seen from above table, this research intends to use a variety of data collection methods to achieve the research objectives. Starting from exploratory analysis of published and unpublished literature to focus groups and questionnaires, these will be employed alongside statistical equation modelling techniques to achieve research objectives.

5.15 Sampling techniques

According to Saunders et al., (2009), a sample can be considered as a small representation of the overall population which is often used in the research, as it provides a feasible size to test the hypothesis and is then extrapolated to cover the full population. Further, Trochim (2006) described that sampling involves unit selection pertaining to firms and people of interest, so that after studying the sample, outcomes could be generalised back to the population from where they were taken. These generalisations, as described under research philosophies above, may not necessarily provide a full and accurate picture of the population's behaviour (ibid). However in most instances the use of the full population may not be possible as academic research involving large populations is very costly and resource heavy (Saunders et al., 2009).

Bryman and Bell (2003) described that the academic sampling procedure can be broadly divided into two areas, probability sampling and non-probability sampling. Further, in the case of probability sampling, every item of the population has the same opportunity, or probability, of being selected. However, in non-probability sampling, there is an underlying assumption that there is an even distribution of characteristics within the population; therefore any pick will constitute a reasonable reflection of the whole population. The diagram below, adapted from Saunders et al. (2009: p 213) shows the different types of sampling techniques that can be utilised under each category.
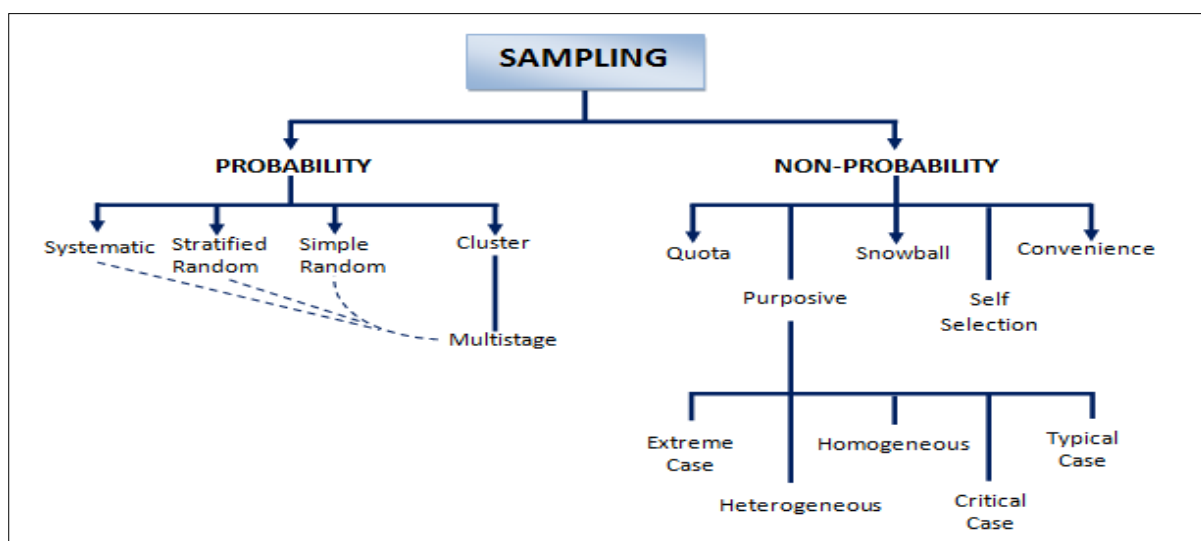
Diagram 7: different sampling techniques

According to Guzman (2009), probability sampling offers sampling mistake measures with regards to the estimates which are derived from the data upon which the researchers generalise the study outcomes on the basis of an inference through the samples to the frames. As per the diagram above, the different types of probability sampling are stratified sampling, systematic sampling, cluster sampling and random sampling.

On the other hand, non-probability sampling is a sampling technique where the researcher has less choice of who is shown the selection, in which the controlled participant's selection would not be a critical factor. The various types of non-probability sampling techniques include those such as voluntary, purposive, convenience and snowball sampling (Neville, 2007).

In line with Bryman and Bell (2003) and Saunders et al., (2009) this research adapts a non-probability based sampling technique. The reason behind the choice of this particular sampling technique was a result of a diverse geographical mix of population, coupled with the lack of specific demographical data available for the size, and their exact locations.

According to Cooper and Schindler (1999), qualitative research is normally completed by a limited number of samples, usually restricted to the context, and deeply studied in accordance with intepretivistic principles. During the initial stage of the study involving focus group discussions and expert panel feedback, a specific structure of non-probability sampling is selected to form a focus group to ensure a good variety of students are involved at this stage. According to Saunders et al., (2009), this sampling is also known as 'judgement sampling'. The same technique was employed during the expert panel selection to ensure that experts represent a good variety of interests within the private colleges in the UK.

During the final stage of the research, an online questionnaire is developed and distributed internationally, and the self-selection sampling method is adopted; the online survey encourages wider participation of candidates. In order to overcome the limitations of this sampling method, two

screening questions were used at the beginning of the questionnaire to ensure that only qualified candidates take part in the study.

5.16 Research approach and developing the empirical model

Jarvis et al., (2003: p 201) broadly categorised empirical models into reflective and formative models. The diagram below shows the differences between the two types:
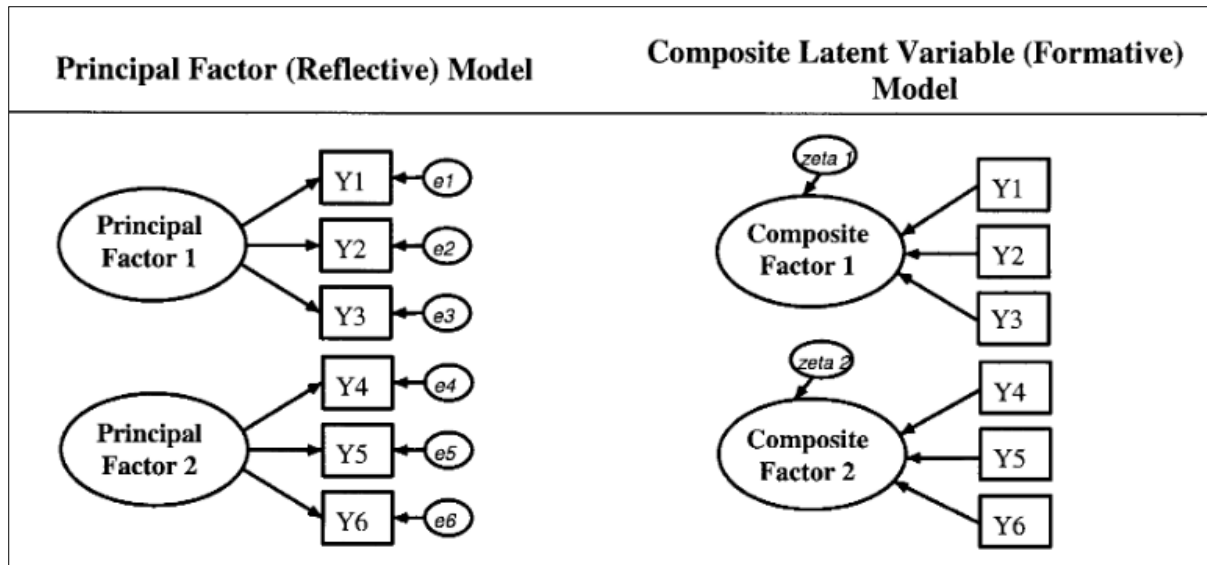
Diagram 8: different approaches in developing an empirical model

Jarvis et al., (2003) further outlined the difference between whether a model is considered reflective or formative depends on several criterion including; the direction of causality, interchangeability of the indicators or items, covariation among the indicators and nomological net of the construct indicators, meaning whether the indicators/items expected to have the same antecedents and consequences, in line with Coltman et al., (2008).

Both Jarvis et al., (2003) and Coltman et al., (2008) agreed that the way the reliability and the validity of the model are tested depends upon the type of constructs. For example, according to Gusti et al., (2014), a reflective construct should be highly correlated amongst themselves as they manifest a phenomenon associated with the same construct, whereas in formative construct, the causality flows from the indicators to the construct, therefore the indicators cause the construct. In terms of measuring the validity and the reliability of a construct, reflective model it can be assessed based on the traditional reliability tests, such as Cronbach's Alpha, while formative constructs do not need reliability testing, whilst the validity of a reflective model can be tested using confirmatory factor analysis (ibid). In line with Jarvis et al., (2003) the development of this construct mirrors many traits associated with reflective constructs such as; the direction of causality is expected to be from construct to items/measures, indicators are likely to be interchangeable, indicators are also expected to covary with each other and indicators are required to have the same antecedents and consequences. Their assumptions are in line with the developments of previous models including SERVQUAL and HEdPERF (Gusti et al., 2014). However, prior to embarking on the construct development process, it is important to look at the key developments of service quality models in the past and how such models evolved throughout the period.

The development of service quality models can be broadly categorised in to four stages. The Nordic Model by Grönroos (1984) is widely considered as the beginning of early disconfirmation theories. The following diagram adapted from Grönroos (1984: p 40), demonstrates the early two-way Nordic model.
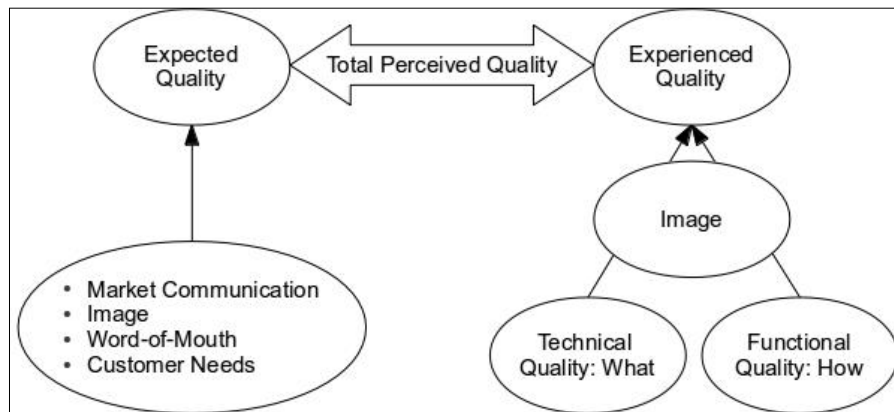
Diagram 9: Grönroos (1984) two-way Nordic model

Parasuraman et al., (1985) then developed this concept further by adding service quality dimensions and five gaps, to measure and understand service quality gap. One of the early SERVQUAL concepts developed by Parasuraman et al., (1985: p 48) is as follows:
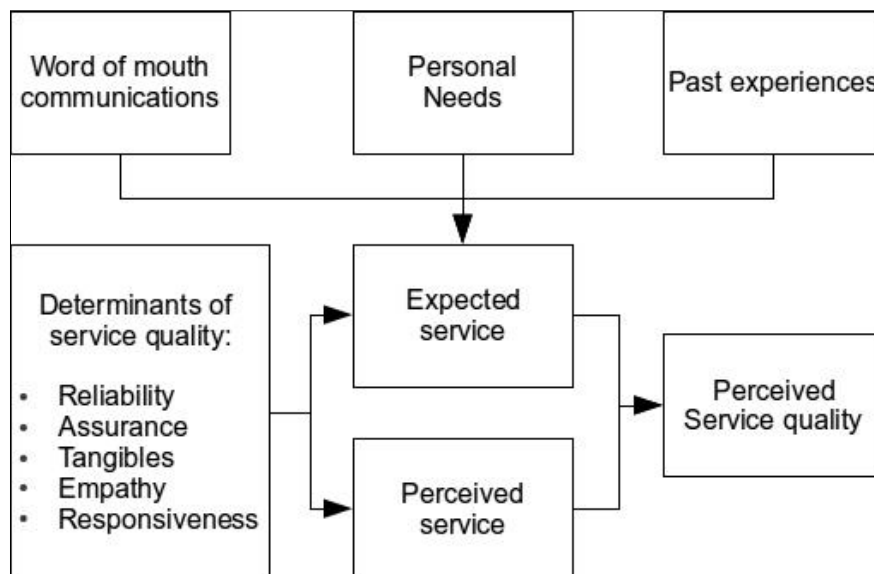
Diagram 10: Parasuraman et al., (1985) Gap model

The service dimensions concept was further developed by Dabholkar et al., (1996), as well as Brady and Cronin (2001), to include multilevel determinants. Dabholkar et al., (1996) used a three-stage model; overall perceptions of service quality, primary dimensions, and sub-dimensions to identify service dimensions using their importance to the customer. On the other hand, Brady and Cronin's (2001) hierarchical model adopted service quality perception based on evaluation by the customer in three dimensions; Interaction Quality (functional quality), Physical Environment Quality and Outcome Quality (technical quality), before identifying further sub-sections for each of these dimensions.

All these studies above included the use of focus groups, expert opinions, pilot studies, as well as full surveys to develop their respective conceptual model and test its reliability and validity as an appropriate model to measure service quality. In addition, Lages and Fernandes (2004) used the same scales as the SERVQUAL model, with adaptations made as a result of feedback received from pilot studies and academic judges. Before collecting data, they used a questionnaire and analysed data using a variety of statistical tools. Further, Shauchenka et al., (2014) used student interviews and expert analysis prior to conducting an online questionnaire. Further research into studies conducted by Santos (2003), Zhu et al., (2002), Cronin and Taylor (1992) as well as Soteriou and Stavrinides, (2000), all used a similar process when developing their respective service quality models. One of the early models of construct development was proposed by Churchill (1979: p 65), where he outlined a structured way of developing a conceptual model as shown in the diagram below:
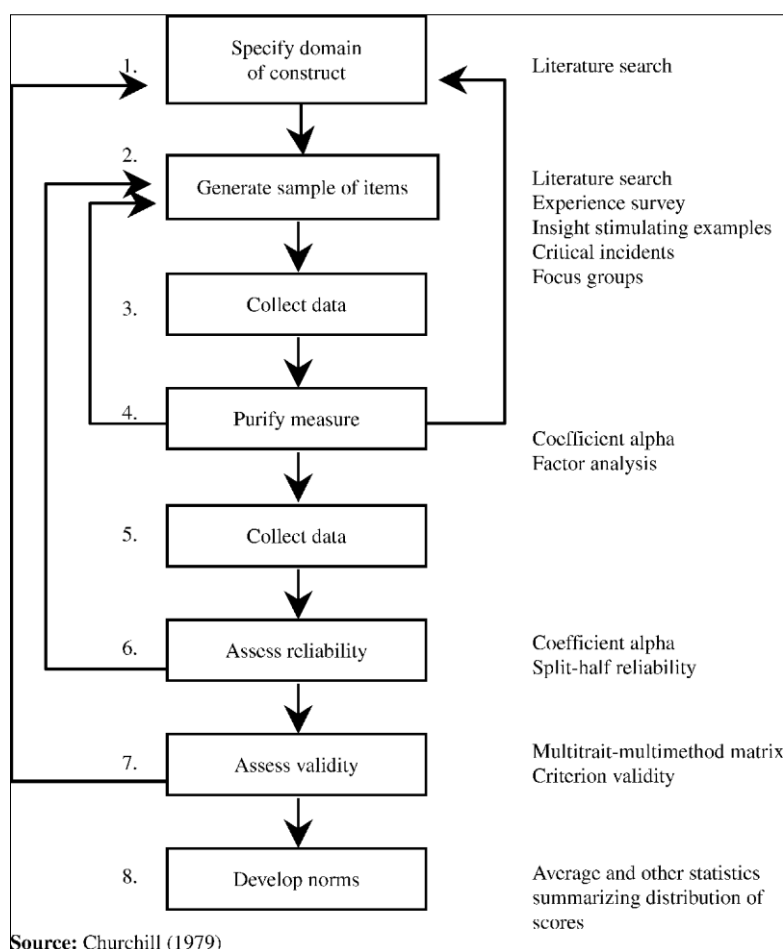
Diagram 11: Stages in developing a conceptual model

As can be seen from the diagram above, the eight stage process in developing a conceptual model by Churchill (1979) is one of the early linear conceptual development concepts. Churchill's early model (1979) has been developed and changed by various researchers (Jarvis et al., 2003), for example the process adopted by Abdullah (2006a) in developing the HEdPERF model, supports and combines many approaches and studies as mentioned above. Therefore, this study supports and adopts those principles of the development method used by Abdullah (2006a: p 570) as a valid and tested model in developing a conceptual model.
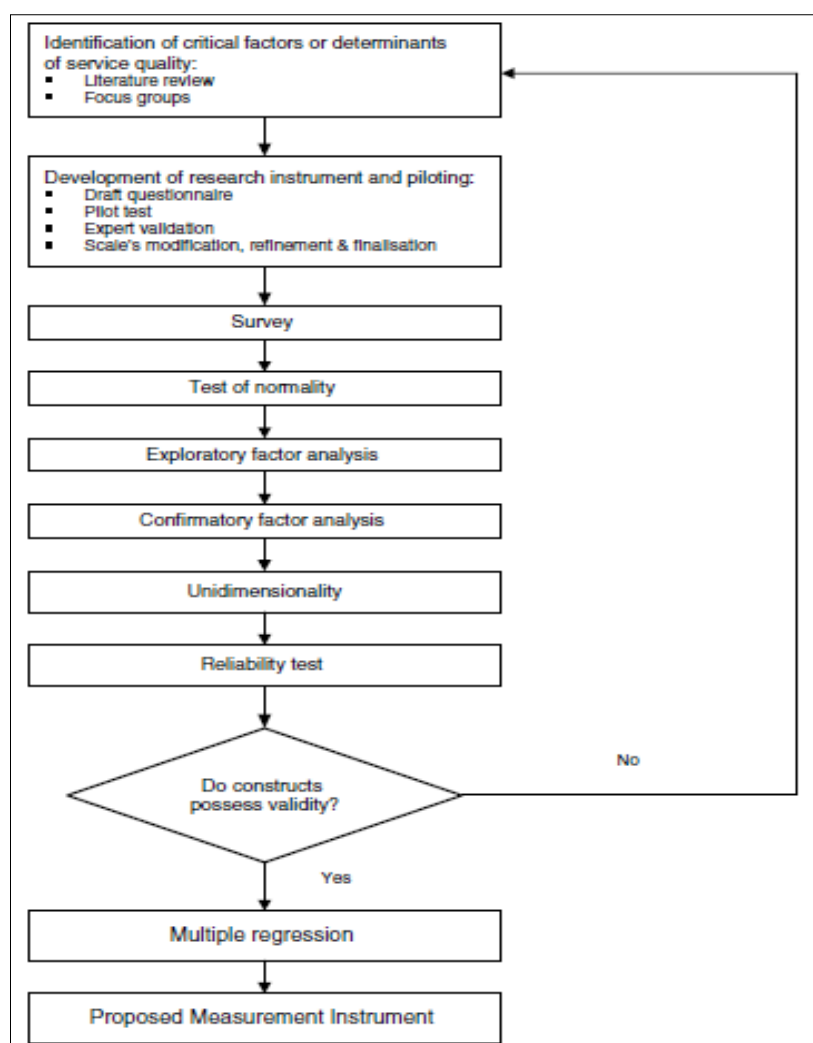
Diagram 12: Stages in developing HEdPERF

As outlined in the diagram above, this study is planning to initially complete an exploratory literature review analysis of both published and unpublished data, followed by a focus group of students, an expert panel, as well as several pilot studies before conducting a full online survey, in line with the previous established process. Once the data collection process is complete, the reliability and validly is measured using established statistical and non-statistical tools, before finalising the proposed measurement instrument of service quality for private colleges in the UK.

However, prior to finalising the survey instrument, the next section analyses the most commonly adapted survey strategy, which is based on a Likert-type scale (Parasuraman et al., 1985; Cronin and Taylor, 1992; Abdullah, 2006a), and the potential challenges in analysing data.

5.17 Likert-type scale

Uebersax (2006) referenced a Likert scale as a psychometric response scale primarily used in questionnaires to obtain participant's preferences or degrees of agreement with a statement or set of statements. Likert scales are a non-comparative scaling technique and are uni-dimensional, therefore only measure a single trait in nature. Respondents are asked to indicate their level of agreement with a given statement by way of an ordinal scale. The origins of Likert scale goes back to

1932, where Dr Rensis Likert developed the scale as a means of measuring psychological attitudes in a scientific way.

Many studies throughout the years have used Likert-type scales to gather feedback to support surveys. For example, Parasuraman et al., (1985), Brady and Cronin (2001), Lages and Fernandes (2004), Santos (2003), Zhu et al., (2002), Cronin and Taylor (1992), Soteriou and Stavrinides, (2000) and Abdullah (2006a) all used Likert-type scales as a part of their measurement instruments. Therefore, this study is also intending to use a Likert-type scale to gather data as part of an online survey. The exact number of choices in the scale will be determined from the focus group as well as pilot studies. According to Uebersax (2006), the data gathered through a Likert-type scale can be analysed using a variety of statistical and non-statistical procedures, meaning that the application of the correct method of data analysis must be determined. Therefore the next section is based on identifying the more suitable method of data analysis for Likert-type scale based measurement instruments.

5.18 Parametric and non-parametric data analysis

Walsh (1962) identified two classifications of statistical procedures as parametric and non-parametric data analysis. Parametric tests or data analysis are based on assumptions about the distribution of the underlying population from which the sample was taken. According to Sheskin (2004), the most common parametric assumption is that data is approximately distributed. For example, if research uses interval or ratio, it can be assumed that the data has a normal distribution and parametric statistical procedures are more appropriate as a tool to analyse such data.

On the other hand, non-parametric tests do not rely on assumptions about the shape or parameters of the underlying population distribution; so, if the measurement scale is nominal or ordinal, nonparametric tests are more appropriate (Conover, 1980).

According to Walsh (1962), if the data deviates strongly from the assumptions of a parametric procedure, then using the parametric procedure could lead to incorrect conclusions. Therefore, it is important to be aware of the assumptions associated with parametric procedures and adopt statistical methods to evaluate the validity of those assumptions.

However, Walsh (1962) further argued that parametric assumption of normality is particularly applicable for small sample sizes of less than 30 responses. Non-parametric tests are often a good option for such studies involving small data samples, and that when the sample size increases in number – usually more than 30 - it can be assumed that the data has been obtained from a population which is considered 'normal' in the statistical sense. In other words, if a sufficiently large sample of data was obtained from the population, is it likely that it would be normally distributed, an argument agreed by Conover (1980). According, to Charles et al., (2012) the application of non-parametric statistical analysis in the SERVQUAL model could be more meaningful if the distribution is skewed. It is, however, worth mentioning that studies by Brady and Cronin (2001), Lages and Fernandes (2004) and Santos (2003) used parametric data testing to support their conceptual models.

Walsh (1962) further stated that it can be difficult to decide whether to use a parametric or non-parametric procedure in some studies as non-parametric procedures generally have less power for

the same sample size than the corresponding parametric procedure, if the data is normally distributed. The interpretation of non-parametric procedures can also be more difficult than for parametric procedures, due to the lack of defined measurements. According to Sheskin (2004), non-parametric statistical procedures rely on none or few assumptions about the shape or parameters of the population distribution from which the sample was drawn, and non-parametric tests are often used in place of their parametric counterparts when certain assumptions about the underlying population are questionable. Easton and McColl (1997: p 36) further stated that "*when comparing two independent samples, the Wilcoxon Mann-Whitney test does not assume that the difference between the samples is normally distributed, whereas its parametric counterpart, the two sample t-test, does*". Non-parametric tests may be, and often are, more powerful in detecting population differences when certain assumptions are not satisfied.

According to Carifio and Perla (2007), Likert type scales can be subject to both parametric and non-parametric statistical procedures. Uebersax (2006) explained that a Likert-scale consists of a set of ordered categories which produces ordered-scale data, and not interval scaled data; therefore should technically be subjected to non-parametric tests such as the Mann-Whitney U-test, Kruskal Wallis, and Spearman's, and not t-tests, ANOVA, or the Pearson's product moment test.

This however, does not mean that all Likert-type scale data collection automatically falls under non-parametric data analysis. According to Uebersax (2006), it is not really the scale that matters as much as the underlying construct that it is measuring, which should be continuous. If respondents perceive the difference between adjacent levels on the scale as equal, then the data can be analysed using parametric statistical analysis. Also, if assumptions such as skewness and the number of categories are met, the P and F-values can be considered valid. However, according to Carifio and Perla (2007), if some categories are combined, for example agree vs. neutral vs. disagree, it is best to compare for differences, with Kruskal Wallis, which uses median ranks or other non-parametric tests.

Carifio and Perla (2007) further stated that a safe bet is to use an expanded version, such as seven points and above, and compare results of the non-parametric test with that of the parametric counterpart. A serious discrepancy could be indicative of the violation of parametric data assumptions. The researcher must also ensure that the labels that describe the points on the scale suggest more or less equal intervals between each point, and accompany the labels with visuals, for example a happy or sad face, or by providing descriptions to encourage responders to think along a continuum scale.

From the above, the type of statistical analysis that is most appropriate is not clear when analysing data gathered via a Likert type scale. It is however worth noting that similar previous studies such as SERVPERF, Weighted SERVPERF, SERVQUAL and Weighted SERVQUAL as well as HEdPERF (Abdullah, 2006a, 2006b, 2006c; Parasuraman et al., 1985; Cronin and Taylor, 1992), used parametric statistical analysis techniques to derive conclusions.

According to Sheskin (2004), parametric tests such as t-tests and the analysis of variance, make certain assumptions about the population's distribution from which the sample has been drawn. These often include assumptions about the shape of the population distribution, such as whether it is normally distributed. Non-parametric techniques, on the other hand, do not have such stringent requirements and do not make assumptions about the underlying population distribution; therefore,

non-parametric analysis techniques are also referred to as distribution-free tests (Lee and Wang, 2013).

The comparable parametric and nonparametric tests frequently used are as follows (Lee and Wang, 2013):

Purpose of the analysis	Parametric technique	Non-parametric technique
Compare means between two distinct/independent groups	Two-sample t-test	Wilcoxon rank-sum test
Compare two quantitative measurements taken from the same group	Paired t-test	Wilcoxon signed-rank test
Compare means between three or more distinct/independent groups	Analysis of variance (ANOVA)	Kruskal-Wallis test
Estimate the degree of association between two quantitative variables	Pearson coefficient of correlation	Spearman's rank correlation

Table 15: parametric and non-parametric data analysis techniques

As seen from the table above, the parametric and non-parametric data analysis uses completely different statistical analysis tools to achieve certain statistical outcomes. For example, a simple means analysis of groups can be conducted by analysis of variance with parametric type data, where the same analysis will be conducted using the Kruskal-Wallis test for non-parametric data. According to Sheskin (2004), if the information about the population is completely known by the means of its parameters, parametric tests such as the t-test, Pearson's coefficient of correlation and ANOVA, are effective methods to use. On the other hand, if there is no knowledge about the population or parameters, Mann-Whitney, rank sum test and Kruskal-Wallis tests are effective measures.

Lee and Wang (2013) identified the advantages of parametric in comparison to non-parametric tests and analysed them as having higher reliability and accuracy, higher efficiency and an effective way of measuring a meaningful relationship between the dependent and independent variables. Whilst the disadvantages of parametric tests include its complication as it uses sampling theory and assumptions, which should be made on the population based on the sample studied and therefore the generalisation may not be accurate.

Further , the advantages of non-parametric tests include that it is simple and easy to understand, does not involve complicated sampling theories and no assumptions can be made with regards to the parent population. The disadvantages of non-parametric tests include that they are only applicable for nominal or ordinal scale data; methods and conclusions are not highly efficient and as powerful as parametric tests; and interaction between variables cannot be highlighted clearly and accurately (ibid). as discussed above, the determination of the type of data analysis will be

predominantly based on the sample distribution of data, whether the date is normally distributed or not. The following section discusses statistically analytical tools that can be adapted to test the distribution of data collected.

5.19 Normality check

Charles et al., (2012) suggested that parametric data analysis techniques can be applied fora Likert-type scale, as long as the data is normally distributed and the sample size exceeds thirty responses.

As described above, it is generally assumed correct to compare means, and by definition parametric statistics, as long as the data that is being tested is normally distributed (ibid). According to Sheskin (2004), sample data sets are often skewed for various reasons, and unless the data is normalised, the comparison of mean scores across the groups is not statistically correct.

The Kolmogorov-Smirnov statistic test is commonly used to test the hypothesis that the data is normally distributed. A low significance value (<0.05) indicates that the distribution of the data differs significantly from a normal distribution. In addition, calculations such as skewness and Kurtosis analysis can also be used to determine the normality of the distribution of data gathered. (Leard, 2013)

Therefore, prior to determining whether to adapt either parametric or nonparametric analysis techniques, as identified above, it is important to understand and analyse the distribution of the data collected, as part of the survey (ibid).

5.20 Chapter summary

This chapter looked at research philosophies and how these linked with ontology and epistemological views of the researcher. For example, Bhaskar's (1978) thinking of critical realism was used as the basis of this research, as a result of the subjective nature of service quality assessments, followed by multi-method research strategy.

Aspects of qualitative and quantitative data collection techniques, as well as different types of data, primary, secondary and tertiary, were also discussed in the chapter, and how these types of data and collection methods are linked in achieving the research objectives.

Finally, this chapter looked at the development model adapted by Abdullah (2006a) as the main conceptual framework to support this research, followed by statistical analysis options using parametric and non-parametric techniques.

Chapter 6:

Research Methods – Application of the research

Context and the purpose of the research

Chapter 1

Introduction and the context of the research

Chapter 2

Independent Education Sector in the UK

Chapter 3

Literature Review – Service Quality and Concepts

Chapter 4

Literature Review – Service Quality Models

Methodology and the initial conceptual model

Chapter 5

Research Methodology

Chapter 6

Research Methods – Application of the research

Chapter 7

The measurement instrument

Data analysis and the Service Quality Model

Chapter 8

Analysis of distribution, reliability and validity

Chapter 9

Chapter 9A

Findings and analysis of **Flexible**

Chapter 9B

Findings and analysis of **Market Driven**

Chapter 9C

Findings and analysis of **Assurance**

Chapter 9D

Findings and analysis of **Customer Focus**

Chapter 9E

Findings and analysis of **Focus Practitioners**

Chapter 10

Development of the **final model** and discussions

Conclusions

Chapter 11

Conclusions and practical application of the conceptual model

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6.0 Chapter introduction

This chapter forms a part of section two of the report, which focuses on methodology and the initial conceptual model. Therefore, building on the methodological understanding gained in the previous chapter, this chapter aims to describe the process undertaken in developing the conceptual model, the survey instrument and how the survey is promoted amongst the population.

This chapter looks closely at the formation of focus groups, expert panels, pilot study groups and the proofreaders, specifically explaining how these four groups work together to develop the conceptual model, service quality dimensions and survey instrument.

Each of the five service quality dimensions; flexible, market driven, assurance, customer focus and focus practitioners, will be looked at in detail in order to understand the respective measures for each dimension.

Finally, it will look at how the survey instrument was promoted amongst the population with specific attention given to the social media usage as well as the use of key stakeholders as a vehicle to promote the questionnaire.

6.1 An assessment of service quality dimensions

As stated in chapter five, the initial phase of the study is focused around the development of a conceptual model, to measure the service quality delivery at private colleges in the UK.

According to (Kimberlin and Winterstein, 2008) researchers must carefully analyse and evaluate the existing and available measurement tools, which are proven to be valid and reliable. For example, if such a measure already exists, the researcher may save both time and resources in using an existing measure rather than developing a new measure. Even though this aspect has been analysed as a part of the literature review, chapter four, it is important to formally complete this analysis prior to moving forward to the development process.

Kimberlin and Winterstein, (2008) suggested that the researcher answer the following questions, in sequence, before commencing the development of the new measuring instrument; do instruments already exist that measure a construct the same or very similar to the one that you wish to measure?, how well do the constructs in the instrument you have identified match the constructs you have conceptually defined for your study?, is the evidence of reliability and validity well established?, in previous research, was there variability in scores with no floor or ceiling effects?, is the instrument in the public domain?, how expensive is it to use the instrument?, if the instrument is administered by an interviewer or if the measure requires the use of experts, how much expertise or specific training is required to administer the instrument?, will the instrument be acceptable to the subjects?,. The section below discusses the answers to the first two questions in relation to this study, as the answers to these two initial questions will determine the need for further analysis.

> Do instruments already exist that measure a construct the same or very similar to the one that you wish to measure?
>
> As mentioned in chapter 4, the researcher conducted an extensive secondary research on existing instruments available in this area. Out of the models identified by the researcher,

several models adopted the use of disconfirmation theory, where participants are required to state both their expected level of service as well as the actual level of service received. The gap model developed by Parasuaman et al., (1985), is considered as the lead concept of this school of thought (Seth et al., 2004).

Further, models by Cronin and Taylor (1992) as well as Abdullah (2006a) adopted a performance only measure, where participants were asked to measure their level of satisfaction (or dissatisfaction) using just one Likert-type scale, assuming that the participants, by default, will be measuring the performance of a service experience against their expectations, therefore, there is no need to have two sets of the same measure to understand the expectations as well as actual service received.

Both of the concepts above have used the concept of service quality dimensions, where the researchers have used pre-established key factors of service quality that are then linked to several measures.

The models that have adopted different concepts to the disconfirmation paradigm include the following models: by Grönroos (1984) the Technical and functional quality model, by Haywood-Farmer (1998) the Attribute service quality model, by Mattsson (1992) the Ideal value model of service quality and by Teas (1993b) the Evaluated performance and normed quality model.

The models above chose to adopt a more open approach, instead of using pre-established service quality assumptions, these models encouraged participants to establish their own quality factors as part of the survey. All the above models have been tested in various companies and industries, with the Gap Model by Parasuraman et al., (1985) being the most widely used.

The researcher of this study, used the SERVQUAL model i.e., Gap model, during a previous study involving private colleges in the UK and it was evident that several adjustments and modifications had to be made to adapt the measure to private colleges in the UK. Therefore, in line with Kimberlin and Winterstein, (2008) and Abdullah (2006a), this research concluded that such major adaptations will significantly change the underlying concepts and most importantly the validity and reliability of the measure. Therefore, the best option is to develop a new model, based on the assumptions and constructs of the SERVQUAL model, to suit the private colleges in the UK.

<u>How well do the constructs in the instrument you have identified match the constructs you have conceptually defined for your study?</u>

As mentioned above, the SERVQUAL and SERVPERF instruments have been tested in different companies and sectors. However the respective service quality dimensions are not necessarily applicable to the higher education sector (Abdullah, 2006a), as well as the constructs which do not apply to students studying at private colleges in the UK.

Therefore the constructs of the established models cannot be applied to this study without significant changes and alterations.

On the basis of the answers above, the researcher concluded that the constructs of the existing models cannot be applied for this study without making significant changes; therefore such changes may result in changes to the current established level of reliability and validity of these instruments.

Furthermore, the exploratory research and an analysis of journal articles revealed that, despite several state funded institutions testing popular service quality models such as SERVQUAL by Parasuraman et al., (1985), HEdPERF by Abdullah (2006a) and SERVPERF by Cronin and Taylor (1992), there have been no formal published studies within the private colleges in the UK. As described in chapter five, the study by Abduallah (2006a) leading to the development of the HEdPERF model, diagram 12 above, has been used as a benchmark for this study. In line with the process outlined by Abdullah (2006a), this study completed an exploratory literature review analysis that has determined no suitable service quality analysis tools already exist in analysing service quality at private colleges in the UK. Therefore, the next stage of developing a reflective model (Jarvis et al., 2003), is to form a focus group in order to understand the key factors of service quality.

Therefore as the initial stage a student focus group discussion was conducted to understand the service quality dimensions applicable for those students who chose to study at a private college in the UK, which then lead to the development of the survey instrument (McLeod, 2000).

6.2 Composition of the focus group – students

According to Simon (1999), a focus group is an effective way of achieving several objectives including collecting opinions, beliefs and attitudes about issues of interest; checking and validating your assumptions; encouraging discussions about a particular topic or an idea; building excitement about a topic by simultaneous participation; and enabling participants to learn more about a topic. Simon (1999) further explained that focus groups are most commonly used to achieve the first two objectives, and the last three are usually bi-products of focus groups. McLeod et al., (2000) described focus groups as an effective tool in collecting qualitative data that can lead to the development of a questionnaire. Further, Kruegar and Casey (2002) also identified focus groups as an effective tool in validating previously gathered data and refining survey instruments.

In addition, the focus groups should ensure that the discussions are conducted in a relaxed manner to ensure wider participation of everyone involved (Kruegar and Casey, 2002). There are no set rules in conducting a focus group discussion. According to Lyttle and Weizenecker (2005), focus groups can be conducted in many settings including traditional, online, and active or creative settings. Traditional focus groups are usually conducted in a room containing a small number of participants and a trained moderator. On the other hand, online focus groups are a faster and less costly way of conducting focus groups, when compared to the traditional model. One major advantage of the online model is that participants from many geographical areas, or with a variety of commitments, can participate without having to travel to a specific location. However, a disadvantage is that these focus groups can be difficult to moderate. Further, when conducting a discussion online, Moderators cannot control the discussion, nor can they assess nonverbal communication from the group, which can be an extremely important aspect of the focus group (Simon, 1999). Finally, active or creative focus groups are usually conducted in order to get participants thinking about what drives them to, for example, purchase products or services and what attracts or does not attract them to certain types of packaging and advertising. Stimuli and projective techniques such as brainstorming and

word sorting are often used to get the respondents actively involved in the discussion (Lyttle and Weizenecker, 2005).

In line with studies conducted by Abdullah (2006a), Grönroos (1984), Parasuraman et al., (1985), Lages and Fernandes (2004) and Shauchenka et al., (2014), this study employed a focus group as the first step towards the identification of critical factors or determinants of service quality for private colleges in the UK. An online focus group has been used in this study to gather qualitative data, because of the complexity of work and personal commitments of the participants, it is impossible to conduct traditional focus groups. An initial focus group has been conducted using Skype Premium ® conference as well as an online forum called go-to-meeting ®, which enables better control of discussions as well as moderation. Both of these software packages were freely available for participants. Further, in addition to focus groups, the researcher also adapted methods such as interviews and observations to further understand the feedback. After the focus group discussion, participants were encouraged to meet the researcher at a time and a location convenient for them, and provide further details and explanations. This also enabled the researcher to understand the thinking behind participants' answers and then ask further questions to reinforce their feedback.

It is important to ensure that the focus group consists of a good variety of students to represent different expectations and backgrounds, which aligns with different students within the full population. This will ensure that the expectations of the full population will be discussed and addressed as much as possible during the focus group stage (Abdullah, 2006b; Simon, 1999).

Discourse analysis and focus groups

According to Morgan (2010), discourse analysis is a commonly used term to describe a range of research approaches that focus on the use of language and interpretation. There are four main types of discourse analysis; conversation analysis, discursive psychology, critical discourse analysis and Foucauldian discourse analysis. Each of these has its own assumptions, emphasis and methods but the key overlapping interest is in the way meaning is constructed in communication. The techniques can reveal often unspoken and unacknowledged aspects of human behaviour, making salient either hidden or dominant discourses that maintain marginalised positions in society.

It is indeed common to use discourse analysis during focus groups to identify behaviours of participants as in many circumstances it is important to observe behavioural aspects during the interactions to determine the real meaning of communications (ibid).

However, as the researcher does not possess formal discourse analysis competences, individual participants of the focus group were invited to have informal one to one discussions with the researcher to understand their input in detail, at a more informal and relaxed setting.

Finally, in order to initiate this process, the researcher formed a focus group consisting of six students representing the mix of the population and their differentiating backgrounds.

Home and EU citizens
A total of four students from British and European Union nationalities were chosen in the focus groups, as this student group has been identified as a key segment in differentiating public and

private education providers. For example, it is important to understand the reason why British and European students have chosen to study at a private college instead of studying at one of their public counterparts, despite having access to public loans and finances.

For the purpose of this study, an academic course has been categorised as a qualification for which its sole purpose is to lead to an academic award such as an undergraduate or master's degree qualification. Whereas, a professional qualification can be a standalone qualification awarded by an awarding organisation, and not necessarily linked to an academic qualification. As per the HESA (2013), a large proportion of British and European Union students chose to apply for funding to study for academic qualifications.

According to BIS (2013), over 66% of students studying at private colleges are in full time employment. Therefore during this study, I chose one student with EU citizenship who is sponsored for a professional qualification by his company and another student with EU citizenship who is sponsored for an academic qualification by her company.

The focus group also consists of a home/EU citizenship student studying a professional qualification at a private college and supporting the qualification costs by using personal finance. This self-funded student was chosen as they were studying a qualification that is available at a public institution but have decided to study at a private college. Another student was selected with EU citizenship that has chosen to study at a private college for an academic qualification, once again using his own means to support the qualification fees.

Non-EU citizens
The final two students are from non-EU countries, meaning that they would require a student visa to study in the UK. This a specific area, where the UK Immigration authorities (Home Office, 2011) found that many economic migrants are using private colleges to secure student visas to come to the UK. Therefore, this study included two international students: one just arrived in the UK to start his qualification at a private college, and another that has been studying at her private college for more than two years.

The choices of students were specifically made to provide discussions with a wider view and understanding of different service quality expectations.

The participants above were initially met individually by the researcher and given the reason and purpose of this study and the fact that their participation is indeed optional. They have also been assured that comments and feedback provided during focus groups and interviews will be dealt with confidentially and no personal data, other than the qualifications they study, have been collected during the discussions. It is the intention of this study to ensure all participants remain open and honest as the study was conducted at a time where private providers were severely under pressure by government regulations.

The focus group took a more relaxed approach to ensure engagement of participants and followed mini-cycles of group online discussions, individual informal discussions, expert panel feedback and then back to group online discussions.

In addition to online group discussions, the focus group also featured informal and open discussions with individuals or small groups, both EU or internationals; discussions with students usually over a coffee or Skype video, were followed by several individual discussions to enable participants to put their respective comments forward and to minimise the influence of other participants, and also to explore discourses noticed during the focus group discussions, such as non-participation during heated discussions, facial impressions as well as phrases used during conversations. As a result, informal discussions took place to enable the participants to share ideas freely in a relaxed environment, which also encouraged participation, as no formal scheduled meetings were required (Blaxter et al., 2001). Further, the researcher asked open ended questions and let the participant drive the discussions and expand on ideas, in order to ensure that all potential areas are discussed openly in a relaxed environment (Black, 1993; Blaxter et al., 2001).

6.3 Expert panel

The expert panel is a commonly used technique to validate feedback prior to developing a survey instrument (Hyrkäs et al., 2003). Studies conducted by Abdullah (2006a), Grönroos (1984), Parasuraman et al., (1985), Lages and Fernandes (2004) and Shauchenka et al., (2014) all employed experts to validate the feedback gathered from focus groups and refine those comments before finalising the survey instrument.

Expert panels are a good way of refining discussions by using the many years of experience, knowledge and expertise of the members (Hyrkäs et al., 2003). It is important to engage the experts with the right expertise and knowledge in the sector, and when using focus group findings it is also important to ensure that those findings are not altered, but refined by experts (Blaxter et al., 2001). According to Estabrook et al., (2008), expert panels are a good way for studying very specific issues requiring a high level of competence and expertise; studying subjects for which other data collection and validation tools are difficult to implement at a reasonable cost; carrying out limited-scope and specific studies; assisting the researchers and evaluators in their conclusions on a subject in complex cases; and providing assistance in the drafting of final conclusions and recommendations. In this particular study, the researcher formed an expert panel to comment on the outcomes of the focus group discussions and provide directions for future discussions.

Estabrook et al., (2008) stated two ways in which to assemble an expert panel as straightforward selection and gradual selection. In the straightforward selection, the researcher uses a list of acknowledged experts in their specific fields, and limits the selection process to ensure the expert's independence from the programme under evaluation. In gradual selection, the preferred profiles of experts are developed with respect to the topics under scrutiny in the evaluation as and when the research develops. This research formed a straightforward expert panel that consists of six industry experts ranging from owners of independent colleges, principals, quality assurance experts, a head of a lobbying group, as well as heads of awarding bodies. The purpose of the panel is to look at the comments gathered from focus group and individual student discussions and comment on possible future directions. These comments were then taken back to the next focus group discussion for further comments. The diagram below shows the process linking focus group and expert panel, as used in this research. Due to time constraints and work commitments, the student comments were emailed or communicated via face to face discussions with experts.

Student Group

Six students consisting of home/EU students, international students, self-funded as well as sponsored students

Further discussions and refinement of dimensions

Discussions in order to broadly explore service dimensions

Refining and re-defining dimensions and measures

Feedback and comments for improvements

Expert Panel

Six individuals consisting of Heads of Colleges, Awarding bodies, lobbying/Membership bodies as well as regularity bodies

Diagram 13: interactions between student focus group and expert panel

As demonstrated in the diagram above, the student focus group and the expert panel work together in developing the initial understanding of service quality dimensions as applicable to private colleges in the UK. For example, the findings of the student focus group were presented to the members of the expert panel for further scrutiny and comments. Once expert panel's comments are taken into account, these revised comments were then taken back to the student focus group for further and additional comments. Expert panel's comments include interpretation of respective discourses identified during the focus group discussions for example, specific phrases and comments during the focus group discussions were further interpreted and scrutinised by the expert panel, before taking those comments back to the student focus group for further discussions.

The above process not only enabled the researcher to understand key issues and requirements, as well as the needs of students that are studying at independent colleges in the UK, but also provided a good sounding board to validate ideas and thoughts. Further, the comparison of student views with the views of experts enabled the researcher to refine and define dimensions (Ekinci and Riley, 1998 and 2001). The focus group and expert panel review was conducted during a period of eight weeks from February to April 2013, with three full online focus group discussions, mini-groups and individual meetings with students and experts to finalise the service quality dimensions and survey instrument.

6.4 Pilot study

Due to time constrains, a pilot student group, of a ten candidates, and a group of five proofreaders were also established to support the development and refinement of service quality dimensions, measures, or statements, for each dimension as well as the survey instrument.

Lancaster et al., (2004) described a pilot, or feasibility study, as a small scale experiment designed to test logistics and gather information prior to a larger scale study, and intended to improve the quality and efficiency of the full larger study. According to Teijlingen and Hundley (2001), the term 'pilot study' is used in two different ways in social science research it can refer to so-called feasibility studies which are small scale versions, or trial runs, done in preparation for the major study. Further, a pilot study in many instances can reveal deficiencies in the design of a proposed research instrument such as a survey. Therefore, most importantly these deficiencies can be addressed before the large scale study and before resources are spent. Even though pilot studies are a crucial element of good research design, conducting a pilot study does not guarantee success in the main study, but it does increase the likelihood of success (ibid). A pilot study is small in comparison with the main experiment and therefore can provide only limited information on the sources and variations of responses (Lancaster et al., 2004).

Lancaster et al., (2004) further stated that if a pilot study does not lead to modification of the survey instrument or procedures, then the data gathered during the pilot study might be suitable for incorporation into the main study. Also, pilot studies have their limitations too. According to Teijlingen and Hundley (2001), the limitations include the possibility of making inaccurate predictions or assumptions on the basis of pilot data and problems arising from contamination of data with the pilot study.

Even though conducting a pilot is a good research practice, adequate care must be taken to ensure that the pilot group represents a good variety of respondents of the full population. A total of ten participants were chosen for the pilot study with a good variety of backgrounds, including both current and past students at private colleges in the UK. Both native and non-native English speakers have been included in the pilot study. the pilot group were emailed the questionnaires and asked to answer without discussion with other fellow pilot group members, the researcher then gathered completed questionnaires as well as feedback on an individual basis. The comments gathered from the pilot group were then forwarded to the expert panel for their review and comments. In addition, a group of five proofreaders were employed to integrate comments made by the pilot student group into the survey instrument. The five proofreaders were employed from different backgrounds to check and refine questions. This process enabled the researcher to develop the survey instrument as clearly as possible. The following diagram shows how the two stages work parallel to each other to support the overall process.
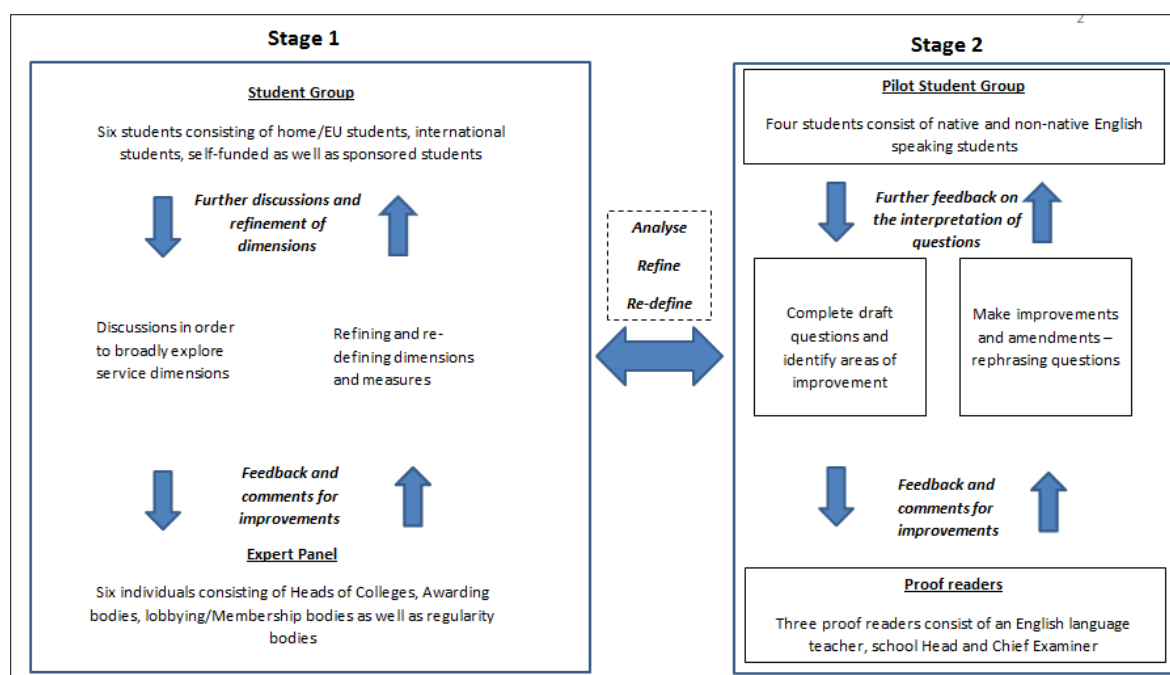
Diagram 14: two stage process involving student focus group, expert panel, pilot group and proofreaders

As shown in the diagram above, the research followed a two staged parallel process, which combines the feedback from the student focus group, expert panel and then onto the pilot group as well as the proofreaders. This process was intended to enhance the transparency and validate and re-validate the findings of student focus group as well as to ensure that the comments were interpreted and translated to the survey instrument as accurately as possible. For example, many of the discussions took place using online tools such as video conferencing, emails as well as telephone and face to face conversations to encourage regular participation of these various individuals. For example, questions developed as a result of stage 1, were forwarded to the pilot group via email for their comments, and then forwarded to proofreaders via email for further comments and to make grammatical improvements. Further, the pilot group as well as proofreaders not only support stage 1 by providing improvements, they have also assisted in re-phrasing some service quality dimensions, which lead to further understanding and clarification of the conceptual model. The following table shows how the refinements of dimensions were made and improved as a result of these two processes.

Service Quality Dimensions (initial findings)	Initial Refinement	Further refinement	Service Quality Dimensions (Final)
Easy processes	Flexibility	Flexibility	**Flexible**
Competitive fees	Customer based prices	Value for Money	**Market Driven**
Recognised awards	Approved qualifications	Accredited qualifications	**Assurance**
Reduced physical evidence	Focus on IT and easy access to facilities	Individual IT driven support	**Customer Focus**
Non research focus	Practical	Professional and industry driven	**Focus-Practitioners**

Table 16: Refinement of service quality dimensions

As seen above, the parallel process enabled the researcher to define and refine the service quality dimensions more clearly. Comments from all four groups; student focus group, expert panel, pilot study and proofreaders, were taken into account when making these changes. All parties agreed that these changes not only enable potential survey participants to understand the areas with better clarity, but they also reflect the thinking of students more accurately as to why they have chosen to study at a private college in the UK.

6.5 Service quality dimensions for private colleges in the UK

At the end of the stage 1 and stage 2 above, and the respective refinements of dimensions, this study identified five areas that are important for students in choosing to study at a private college in the UK. They are flexible, market driven, assurance, customer focus and focus practitioners. The respective descriptions of each of these dimensions are as follows:

6.5.1 Flexible

The first service quality dimension is flexible. Flexible relates to the number of alterative options offered by the educational institution with regards to qualifications, study modes, entry requirements as well as assessments. In addition to these, further aspects such as the ease of the application process and the ability to change between qualifications, especially if a student didn't like their original chosen qualification, are also included under this dimension.

To validate this dimension further, the researcher analysed over 35,700 degree qualifications and nearly 600 non-degree qualifications offered by 94 UK based universities and publicly funded institutions, and found that over 70% of these qualifications only offer just one intake per annum. Therefore, students that have missed this entry point are required to wait for another year to start their qualifications. Further, the entry requirements of qualifications also seemed pre-determined and fixed, as many universities and state funded colleges have listed strict entry requirements, ranging from UCAS (Universities and Colleges Admissions Service) points to Secure English Language Test (SELT) scores. Several even request GMAT (Graduate Management Admissions Test) scores. This study also revealed that most universities and public institutions require students to submit original or attested qualifications and work experiences as part of the admissions process, and on average the application process takes approximately 12 to 16 weeks. Photocopies or scanned copies of documents are not accepted, as the onus falls onto the student to provide original copies or certificated copies to prove the authenticity of the documents submitted. Finally, once enrolled, it is difficult to change the qualification or the study option, as strictly defined rules apply to each study module and are closely linked to funding places and teaching timetables.

The focus group feel that their private colleges have been flexible in accepting alternative qualifications and work experience in lieu of formal academic qualifications, with many offering an admissions interview as a part of course entry. In many cases, private colleges were happy to interview students, especially those who did not meet the standard entry requirements, to understand their intentions and were willing to consider them for admissions.

Changing courses at private colleges seems easy, as they offer several start dates throughout the year, so students were simply able to stop the course they are studying at present and start a new course in a matter of weeks. Switches in study modes are also easy to achieve, as

many private providers offer blended learning study options and block course delivery, meaning students can choose to either study in a face to face environment or study online, which ultimately offers more flexibility to continue their studies around personal and work lives.

Finally, the application processes at private providers are simple and easy to follow, with many of them accepting scanned copies of documents and full online applications. Many providers process applications within 48 hours of receipt of the application and with some short qualifications application decisions are made instantly. Several students specifically mentioned that they have purposely chosen to study at a private college because they did not have sufficient time to process their application at a public institution.

6.5.2 Market Driven

This dimension refers to how a private college reacts to market changes and dynamics, and social and cultural factors such as the use on social media, online forms as well as competitive fees. The focus group strongly believes that tuition and course fees must be market driven and free from state intervention, as this in turn reflects the quality of qualifications on offer. Students at the focus group strongly believe that the level and the image of qualifications gained at the Russell Group of universities in comparison to new universities vary significantly as well as their respective career prospects. Therefore, they are willing to pay more to gain a degree qualification or a professional qualification at a university that is considered to be a top ranked institution, but not at a lower ranked university. Student groups also believe that the recently introduced higher tuition fees have not fully settled, as the original purpose was hindered by lower ranked universities that are also choosing to charge the upper limit of the fees.

The student focus group also felt that the levels of service such as careers support, face to face learning hours, personal tutoring and learning, and study materials must be reflected in the fees charged and they must have the choice to add or remove these elements where necessary. For example, students that are already in employment may not want to access career support services at their institutions, but in turn expect a reduction of fees. Further, students would also like to be given the option to study and accumulate credits or modules as and when they are available, rather than having time constraints imposed on them.

In addition, students feel that they must be allowed to pay the fees as and when the course progresses and not to charge the whole fees up front, as the cost should be absorbed when the service is delivered in stages. Many students also felt that lengthy summer breaks as well as rigid examination schedules have put them off choosing to study at a public institution. Many company sponsored students were given only a limited time off for their studies and therefore are keen to complete their qualification as quickly as possible.

Finally, students feel that private colleges are good at providing qualifications that are easy to follow and competitively priced. Students were also allowed to pay their fees in stages or even monthly instalments and pay-as-you-go prices, where their private college offer services on-demand. For company sponsored students, many colleges offered group discounts and extra complimentary add-ons, such as additional personal tutoring, assignment support and incentives, such as computer equipment (laptops, tablet computers and so on). During the focus group, one student specifically mentioned that the offer of buying an online qualification and adding face to face lectures or extra tutor support at a fee, was a very attractive option in choosing to study at a private college.

6.5.3 Assurance

The third service quality dimension as identified by the above process is assurance, which refers to forms of guarantees and warranties of quality assurance and compliance of the actual qualifications, which includes external benchmarks as well as accreditations. Assurance also refers to the credibility and recognition of the qualifications awarded and whether these qualifications can be transferred to higher level qualifications, such a credit transfer facilities. This is an area that is generally well served by the public funded institutions, as they tend to set benchmarks for the private providers.

The focus group identified this particular service quality dimension as particularly important to those that seek to gain an accredited qualification, not necessarily the knowledge associated with it. Focus group discussions revealed that many participants have indeed taken training courses for their own personal development without them being associated with an externally recognised qualification.

However, the research carried out by this study revealed that most private colleges in the UK work in partnership with external organisations, such as awarding bodies that are approved by OfQual and other professional organisations, and with many working in partnership with universities to validate and benchmark their academic qualifications. The Quality Assurance Agency as well as the Independent Schools Inspectorate, amongst others, also provide general overall quality assurances to many private providers.

The focus group also revealed that having credible and recognised qualifications are not the only areas of their concern. They are also concerned about how their chosen education provider supports them in preparation for examinations and assessments by offering extra support and guidance. This is an area particularly well-performed by private providers, where students were given assessment-focused seminars and tutorials to prepare them for examinations, with many providers even offering 'pass guarantees'. This area is of particular importance for those company sponsored students studying for professional qualifications, where the student's progression opportunities are based on how they perform during those examinations and professional memberships. During the focus group discussions, many participants feel that specialist private providers are more equipped to prepare them for these external professional examinations rather than public sector institutions. This research found that specialised providers such as BPP Professional Education, Kaplan Professional, Financial Training College, London School of Marketing, Cambridge College of Marketing, First Intuition, and Marketers Forum are leaders in this area, with a majority of students that are taking professional qualifications sponsored by their employers. These providers take particular pride in publishing their examination success rates as a key competitive offering to attract students.

Another aspect of importance in this area is the specialism of the education provider. Many students feel that it is important, specifically for their career enhancements and better understanding of theories, to have specialised providers. Students feel very strongly about attending a specialist provider of law for their law qualifications, specialise provider for accountancy for their accountancy qualifications and so on. This is an area of particular strength of private providers, as due to the nature of their business, such as being smaller in size, they tend to be driven by subject specialism, and in many cases supported by their owners' interests.

6.5.4 Customer Focus

Customer focus is an area of particular strength of private providers and this dimension covers a variety of aspects including student support, access to study materials, personal tutoring and communication.

Focus groups strongly feel that this is an area where private providers significantly outperform their state counterparts by cleverly integrating new technologies for their service. For example, many provide providers encourage students to participate in social media forums and make study materials available to students to study anytime and anywhere. As discussed in chapter two, many private providers have smaller premises, therefore they tend to offer smaller class sizes and online library facilities, all of which are well received by students. Many students also feel that they are unable to ask questions in larger seminars, but in small classes, they are able to have a dialogue with the lecturer.

Aspects such as the students' ability to meet key staff members at short notice to defer and change qualifications, discuss payment plans, for ease of communication and so on, were highlighted during the focus group discussions, and many students agreed that this was one of the main reasons to choose to study at a private provider. Many students revealed they had contacted their lecturers using their own mobile phone number and the ability to contact key personnel, such as administrators, via social media is an important aspect. Further, students also participate in social media group discussions with their tutor, which is more preferable than, for example, using a university's discussion forum such as BlackBoard ® and Moodle ®.

The number of students in a particular classroom and the attention a lecturer or a tutor gives to students, both in and outside scheduled lectures, are also highly valued and the students feel that their lecturer is more customer-driven and focused in delivering their study materials, rather than engaged in academic research. In general, students would like to be treated as 'customers' rather than 'students', as they feel that the term students refers to the secondary school education where they are required to obey and follow rules. They believe by treating them as customers, they can consider themselves as purchasing a service, such as lecturer's time and expertise to pass an exam or understand a complex issue.

6.5.5 Focus Practitioners

The final service quality dimension identified by the focus group is known as focus-practitioners. This dimension refers to aspects such as the level of real life experience and expertise of the lecturers in the subject that they teach, and their ability to bring their own experiences and share them with students as part of their lectures, rather than simply following academic theories and terms. The focus group discussions also reinforced that they would prefer to study at an institution that is specialised in their field of study, whether it is business, marketing, drama or arts, as they feel that they can access subject experts at these places, rather than a public sector provider that offer many diverse disciplines.

When asked whether universities with leading academics would meet their needs, many students believed that even though these leading academics are linked to these universities, they mainly engage in academic research and rarely teach in the classrooms. Further, the researcher's analysis of UK universities revealed that 13 universities offer over 400 qualifications each, and 68 universities offer over 100 qualifications in a variety of study

areas, ranging from humanities to engineering. Only 13 universities offered less than 100 qualifications, meaning that the ability to specialise in a specific subject area has been diminished as a result of carrying a much diversified portfolio.

Focus groups also agreed that in addition to having specialist lecturers, students would also value having specialist administrators also. For example, if they are studying for a specialist accountancy qualification, they would value an administrator that has gained the same qualification to assist them with their queries, such as booking exams, applying for memberships, and so on. Many participants feel that this is an area of particular importance to private providers, as their course administrators tend to have completed a similar qualification and are in a better position to advise on administrative issues.

The findings of the student focus group as well as expert panel pointed to a non-weighted model, where they believe that all five dimensions are equally important in for students choosing to study at private colleges in the UK. In addition, both the student focus group as well as the expert panel believed that all five dimensions must be present at all times, for example, if a private college over focuses on flexible but lacks customer focus, that will lead to student dissatisfaction.

6.6 Interlinked dimensions and customer satisfaction

It is evident from the findings above that individual service quality dimensions overlap with each other in many areas. For example, aspects of assurance can be common for being customer focused, and flexibility goes hand in hand with being market driven. Focus groups also reveal that simply performing well in one area, but ignoring another may result in poor service delivery, as students feel that all these areas are important for their satisfaction, and are the reasons why they have chosen to study at a private provider.

After looking at a variety of ways of designing these interlinked service quality dimensions, the researcher, expert panel and the focus group concluded an interlinked diagram showing these five dimensions to reflect the feedback from students more effectively. The diagram below shows how these five service quality dimensions link up to create the overall student satisfaction, as the performance of one dimension will naturally affect the others.
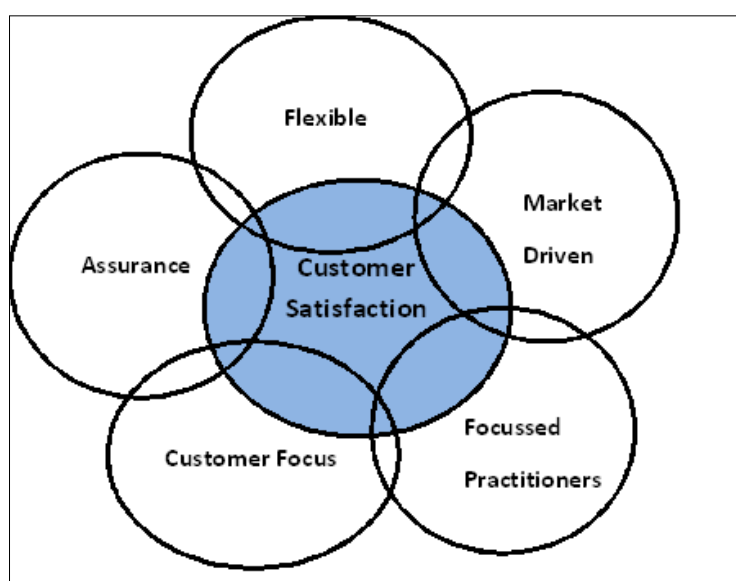
Diagram 15: interlinked service quality dimensions for private colleges in the UK

As seen in the diagram above, the five service quality dimensions are interlinked, meaning that all five must be present and working in harmony with good synergy to achieve overall student satisfaction. Further all dimensions are equally weighted as the findings of the focus group concerning the most important and least important dimensions were inconclusive, and due to the background of participants the order of importance has changed many times. The focus group further believes that long term consistent delivery across all these dimensions will lead to a higher service quality and greater customer satisfaction. It is also entirely possible that students may give higher priority to certain dimensions over others during the course of their studies. For example, during the examination times, students will have given more importance to customer focus and focus practitioners, whereas during the registration time, more focus may have given to flexibility and being market driven. This may be due to a variety of factors, including but not limited to, their gender, whether they are a home, EU or international student, age and so on.

6.7 Identifying measures of service quality dimensions

Once the service quality dimensions are identified, the next step is to understand and identify measures for each dimension (Abdullah, 2006a). As part of the focus group discussions and expert panel reviews, the areas that are popular under each dimension were collated and categorised and then analysed by removing repeated areas.

The following table shows how this process of initially identifying and then refining these areas, has been progressed during this focus group stage. Both Abdullah (2006a) and Parasuraman et al., (1985), identified a maximum of five measures for each dimension, and this process has been followed during this research to ensure that the survey instrument will contact a maximum of five measures for each dimension.

Service Quality Dimension	Number of areas identified by the focus group	Number of measure/statements identified after refinement
Flexible	7	**5**
Market Driven	6	**4**
Assurance	6	**5**
Customer Focus	7	**4**
Focus Practitioners	5	**4**

Table 17: Refinement of measures of service quality dimensions

As demonstrated from the diagram above, the number of measures, or statements, under each dimension has been reduced via expert panel discussions as well as pilot study. Further, this research attempted to employ aspects of principal component analysis to reduce the number of variables, but due to the size of the pilot group sample, the data was not suitable for this statistical analysis technique i.e., as Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy obtained was below the required 0.6 (Leard, 2013). However, most of the refinements of measures were achieved by integrating multiple statements, with similar outcomes into one measure or statement.

At the end of this process, a total of 22 measures have been identified as follows:

Flexible	Regular Entry Points
	Flexible Entry Requirements
	Simple admissions/application process
	Easy access Study options and locations
	Easy switch between qualifications

Market Driven	Competitive & market driven fees
	No/limited extra costs
	Easy Payment options/instalments
	No/limited cost extra support

Assurance	Accredited qualifications
	Assessment focus
	Progression opportunities
	Governmental approvals
	Subject focus

Customer Focus	Smaller classes
	Online resources
	IT integration in communications
	Guidance and student support

Focussed Practitioners	Experienced practitioners
	Non-research focus
	Easy access to staff
	Specialist support

Diagram 16: Service quality dimensions for private colleges in the UK and their respective statements

As seen from the diagram above, the total number of statements and their respective allocation are as follows: flexible and assurance, five questions each, market driven, customer focus and focus practitioners with four questions each. Further, in line with the studies conducted by Abdullah (2006a), Grönroos (1984), Parasuraman et al., (1985), Lages and Fernandes (2004) and Shauchenka et al., (2014), these measures will then be converted into statements, with the aid of the pilot group, expert panel and proofreaders, where respondents are requested to comment of their level of agreement or disagreement, using a seven point Likert-type scale. This study, in line with Cronin and Taylor (1992) and Abdullah (2006a), adapted a performance-only approach, instead of two sets of questions as used in the SERVQUAL instrument.

6.8 Development of the survey instrument – Questionnaire

According to Kimerlin and Winterstein (2008), Self-report survey instruments are widely used in research as these are considered easy to implement as their applicability for large sample sizes, in comparison to other methods such as observations and interviewer completed questionnaires. However, self-report measurements have several areas that require close attention, as participants of self-report measurements, such as surveys, are likely to provide socially acceptable responses and encourage estimations, as opposed to accurate measurements. A variety of actions have been taken at both the development stage of the survey as well as the implementation to ensure that this research minimises the impact of these concerns as much as possible (ibid).

Likert-type scales have been widely used in self-report instruments by several researchers as a part of their service quality measurement instruments. More specifically Parasuraman et al., (1985),

Cronin and Taylor (1992), Sweeney et al., (1997), Frost and Kumar (2000), Zhu et al., (2002), Mattsson (1992), Dabholkar (1996) and Spreng and Mackoy (1996) all used seven point Likert-type scales in the development of their respective service quality models.

Oh (1999) adapted a six-point Likert scale in the development of service quality, customer value and customer satisfaction model, and Grönroos (1984) used a five-point Likert scale for the development of Technical and functional quality model. It is however, worth noticing the use of alternative tools, other than Likert type scales, where Brogowicz et al., (1990), in the development of synthesied model of service quality, adapted observation based model, Teas (1993a) used personal interviews as the data collection method for the development of normed quality and evaluated performance model, and Dabholkar et al., (2000) utilised telephone interviews for the development of Antecedent mediator model. However, as a result of the evidence gathered in the literature review as well as comments received during the student focus group and expert panel as well as pilot study, the researcher concluded that the use of a seven point Likert-scale was not only the best solution, but also in line with several statistical analysis techniques.

After further discussions with the focus group of students as well as expert panel, a seven point Likert scale has been developed in line with the previous studies – as mentioned above – to develop the self-report survey instrument.

Strongly disagree	Disagree	Disagree somewhat	Undecided/ neutral	Agree somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7

Table 18: seven point Likert-type scale adapted in the survey

When calculating the performance of these measures, the above seven point Likert scale will be used to determine the level of satisfaction, with a score of one being strongly disagree and seven strongly agree. The score of four can be considered as the neutral point, where customer expectations meet actual performance. Therefore, the median scores of each of these measures can be calculated to identify whether a particular educational institution has met (zero), exceeded (positive score) or failed to meet expectations (negative score) by simply deducting the neutral score of four (Oh, 1999). Further, this assessment will in turn enable private education providers to concentrate on dimensions that are important to their students, and where their service performance fails to meet expectations.

As the order of priority of dimensions was inconclusive during the focus group stage, the respondents will be asked to prioritise dimensions in order of their importance to them to identify trends. In addition, such a prioritisation will enable the education providers to allocate more resources in the areas that are more important to students. The data gathered under this classification will be analysed to determine, whether a respective weighting must be given to dimensions. This process will be completed as part of the result analysis section in chapter nine.

However, during the pilot study, several suggestions were made by the group of students to make improvements to the survey instrument, which will eventually improve the interpretation of questions as well as assist in contextualising the question asked. These comments have been discussed with the expert panel; prior to modifications being made. The table below shows some key comments made and the corrective action taken to incorporate those comments:

Comments from pilot study	Action Taken
Better understanding of the study and the purpose	Apart from re-phrasing and improving the statements, the survey will also have a cover letter explaining the purpose of the study.
Reinforce the sensitivity of personal data	Avoid collecting any personal data from participants, and also reinforce that confidentiality of the responses and how they have been used in the cover letter.
Help to understand the questions better	Add descriptions and feedback from the focus group discussions to add context to each question.
More information and credibility to encourage participation	Created a website to provide information on the research and profiles of the researcher and supervisors. The website contained details of the research so far and the 'contact us' section allows participants to ask any questions.

Table 19: comments received from pilot study and respective actions taken

In addition to the changes suggested by the pilot group above, the expert panel and the student focus group further suggested the following:

- Include a screening question to ensure that those with the right age and those that have studied at a private college for up to four years preceding the study, are only taking part. Therefore, a screening question has been included at the beginning of the survey, but after the welcome and explanatory text.

- All statements were made mandatory to ensure that respondents do not skip statements, and also to ensure that fuller feedback is gathered to avoid incomplete questionnaires.

- The questionnaire will only be made available via an online link, hosted by Survey Monkey ®, and no hard copies were distributed. The rationale for this decision is to minimise undue influence by third parties, such as college lecturers looking at the completed surveys. Also, both the focus group, expert panel and the pilot group agreed that the target student population is most likely to have access to online materials (the survey is also accessible via tablet computers and smart phones), and therefore they are more likely to participate and complete the questionnaire online, rather than a paper based questionnaire.

- The survey also consists of a question that requires participants to list the service dimensions in their order of importance to them. As the focus group findings in this area

were inconclusive, the survey therefore intends to explore whether a common order of priority existed within the participants.

- Further demographical questions, such as whether the participant is an EU or a Non-EU citizen, gender, age group and the number of courses studied at private colleges, have been included to assess any links between these groups and service dimensions.

During the development process, comments from proofreaders and the expert panel were taken into account to support comments made by the focus group and the pilot study group, as demonstrated in diagram 14 above. This process was continuously adapted to ensure that the final survey instrument is as accurate a reflection of the outcomes of the focus group.

6.9 The Survey instrument – Questionnaire

(A copy of the full survey instrument can be found in the appendix.)

The final survey consists of 29 questions in total, with one screening question to ensure that all participants meet the qualifying requirements, are at least 17 years of age and studied at an independent college in the UK during the last four years. The four year time duration was set to be in line with the commencement of this research as well as the feedback gathered from focus groups as well as the expert panel. Participants are required to acknowledge that they meet both of these requirements and only those that have acknowledged this were invited to complete the rest of the survey.

The survey instrument consists of 22 questions, representing the five service quality dimensions as follows: Flexibility – five questions, Market driven – four questions, Assurance – five questions, Customer Focus – four questions and Focus Practitioners – five questions. These statements were then followed by a question where the participants were asked to categorise these five service quality dimensions in the order of priority. In order to maintain the consistency of the feedback two questions, one in Assurance and another in Focus Practitioners, were set in reverse order, and the feedback of these questions will be reversed prior to analysing.

Participants were asked a further four questions, one question as a part of Focus Practitioners to identify whether they are a European Union student or a non-EU student. This question was then followed by demographic questions, such as gender and age, and then a question determining how many qualifications the participants study at an Independent Educational institution in the UK.

A detailed analysis of the survey instrument, including the rationale for each statement is discussed in the next chapter.

Several actions to ensure the validity, reliability and responsiveness of the survey instrument have been completed during the pilot stage. These will be further discussed in Chapter eight as a part of overall analysis of validity, reliability and responsiveness.

6.10 Distribution of the survey instrument

As many students may have returned to their home countries after completing their qualifications and the lack of student specific demographic information, such as contact details, make identifying and locating students that have studied at private colleges an impossible task in order to encourage

participation, the survey instrument must be promoted internationally to gain attention and participation, whilst at the same time giving easy access. Therefore, an online survey instrument was created using Survey Monkey ® at www.surveymonkey.com.

The online survey was made available from 1st June 2013 to 30th November 2013, to ensure as many participants receive the opportunity to complete the survey. This particular time duration also enabled the researcher to attract those students that are in the process of completing their respective studies before the summer holidays, as well as those students starting or returning to their studies in the September session. A specific link to this survey was then promoted to the targeted population via a variety of channels, as follows.

6.10.1 Brand image and recognition

As the survey will be promoted via a variety of channels, it is important to design a unique image to link these channels and avoid confusion in the participants. By creating this unique identity participants will be able to easily refer to the study and, most importantly, avoid completing the survey multiple times. The brand design is simply an acronym of the survey and explains the purpose of the study. This unique image was then used throughout all channels to ensure consistency of message.

Diagram 17: Service quality and performance model for independent colleges in the UK brand image

6.10.2 Website

A dedicated website at www.service-quality.co.uk was created to provide participants with additional information of the study, background of the researcher and the opportunity for participants to ask questions via a 'contact us' form. The following image shows the website's interactions. The purpose of the website is to add credibility to the research and make the study more transparent. This website also acts as an effective platform to acknowledge contributors and supporters of the study so far.

Diagram 18: image of the home page www.service-quality.co.uk
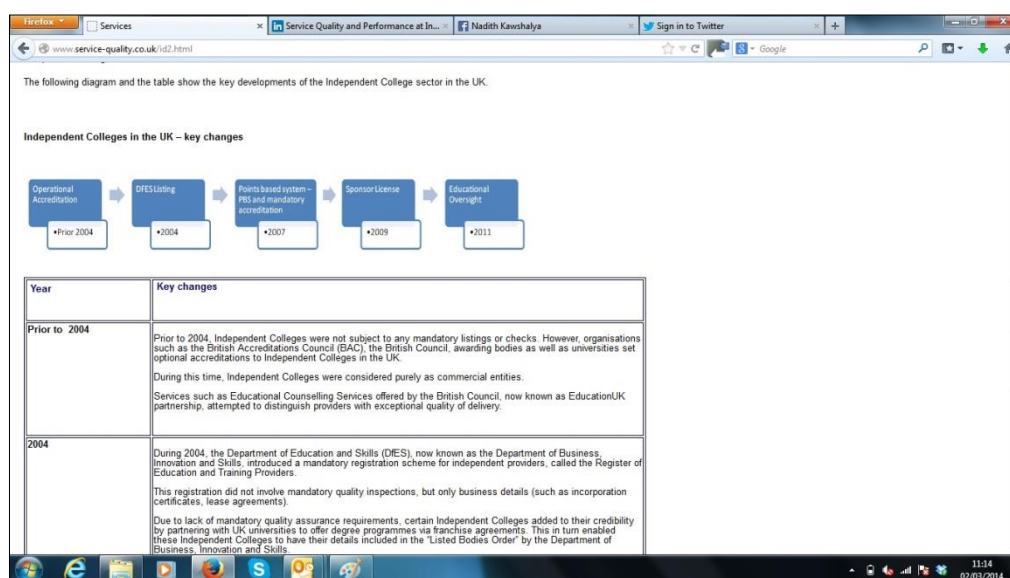
Diagram 19: image of the website showing the details of the research

As seen from the two images above, the website was not only used as a means of attracting participants to take part in the study, but also as a tool to provide details of the research and improve the validation of the research.

6.10.3 Stakeholders

The survey also identified key stakeholders associated with private colleges in the UK, such as accrediting bodies, awarding bodies, student recruitment agents and private colleges as an important channel of distribution of the survey.

Therefore, this research communicated with these stakeholders and requested that they promote the website and the survey link to their current and previous students.

The organisations that have agreed to support and promote this survey to their students were acknowledged in the website as an incentive for more stakeholders to take part in the study. Over 300 private colleges, accrediting bodies and student recruitment agents agreed to participate in the research and to promote the survey link to their students.

The image below shows the acknowledgement page of the website:
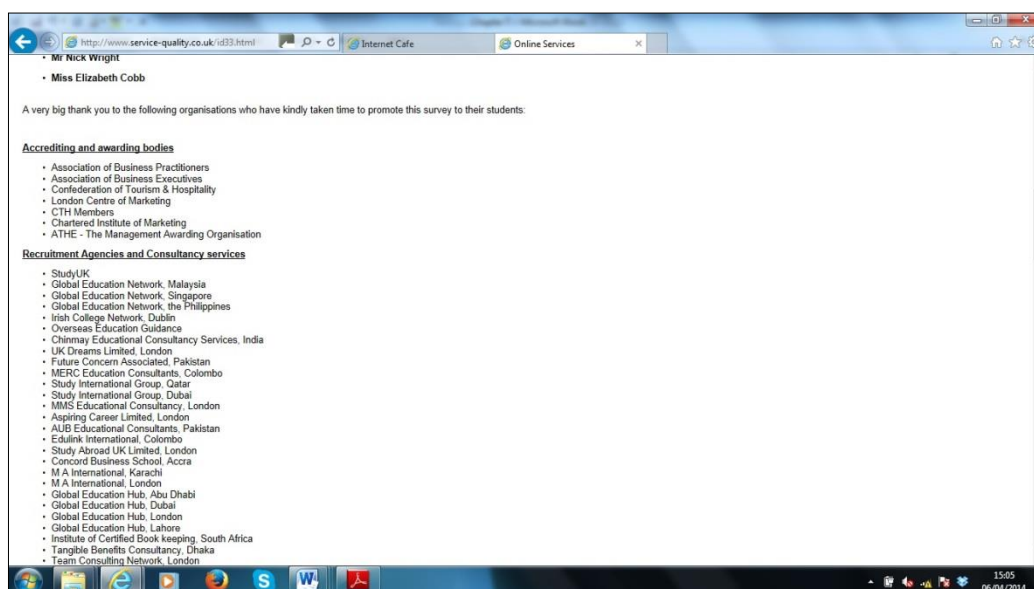
Diagram 20: acknowledgement page of the website

As shown from the image above, a group of over 400 stakeholders supported the distribution of the survey. They include over 15 awarding and accrediting bodies, over 50 student recruitment agencies and consultants as well as over 300 private colleges in the UK.

6.10.4 Social Media

In order to access as many participants as possible, the website and the survey link was then further promoted via social media, such as Facebook ®, Twitter ® and LinkedIn ®. Regular updates of the number of completed surveys were posted in these sites, while encouraging participants to email links of the survey to their friends who meet the survey requirements.

The image below shows the LinkedIn page of the survey. Over 50 members signed up and posted messages online to support the study.
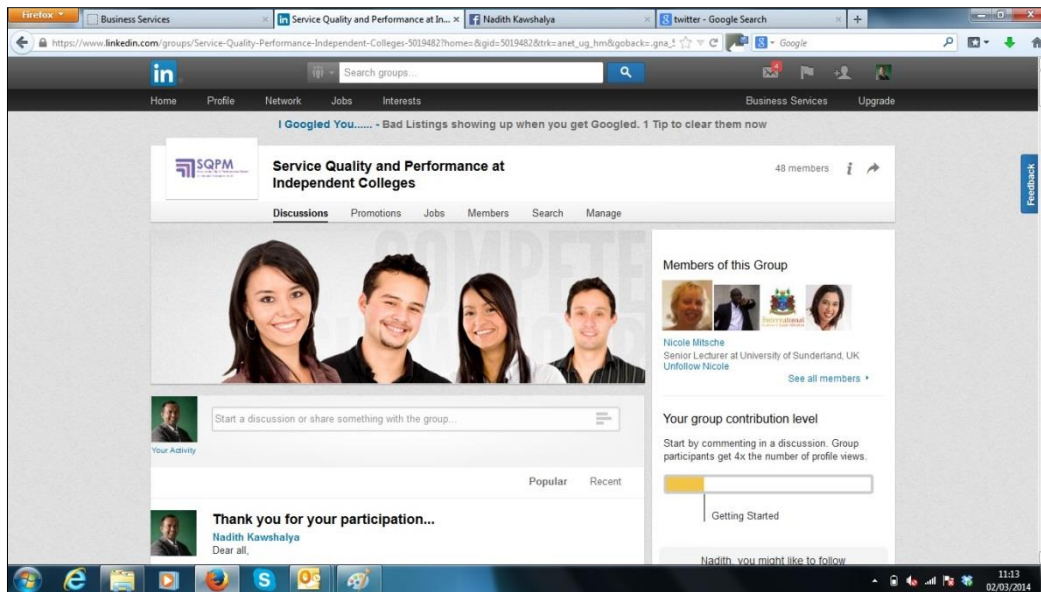
Diagram 21: LinkedIn page of the research

The image above shows the LinkedIn ® page of the survey, where over 100 regular followers signed in to follow the progress of the research online. The following is an image of the Facebook page, where over 100 members participated in regular discussions of the survey and shared the survey link with their friends.

Diagram 22: Facebook page of the research

Below is an image of the Twitter ® page where over 120 members followed the posts on a regular basis and shared the links to the survey with their own contacts to encourage wider participation.

Diagram 23: Twitter page of the research

The above, social media activities were designed to support and promote the main website and also encourage participants to share their thoughts and suggestions with their friends. These activities further encourage participants and stakeholders to share their ideas and comments using these online platforms, therefore creating a real discussion around this topic.

6.10.5 Promotions via discussion groups and third parties

In addition to the above, the survey was also promoted via third party discussion groups that are linked to private colleges in the UK. Links to the email were included in monthly e-newsletters of several awarding bodies including the Confederation of Tourism and Hospitality, Association of Business Practitioners and others.

In addition, comments and posts were made at discussion forums involving educational agents, students and academics. The image below shows the posting made on popular international student recruitment agents' web forum at My EdAgent. These postings were made to encourage members to share links with fellow participants and students that these agents have referred to study at private colleges in the UK in the past, currently studying or planning to study.
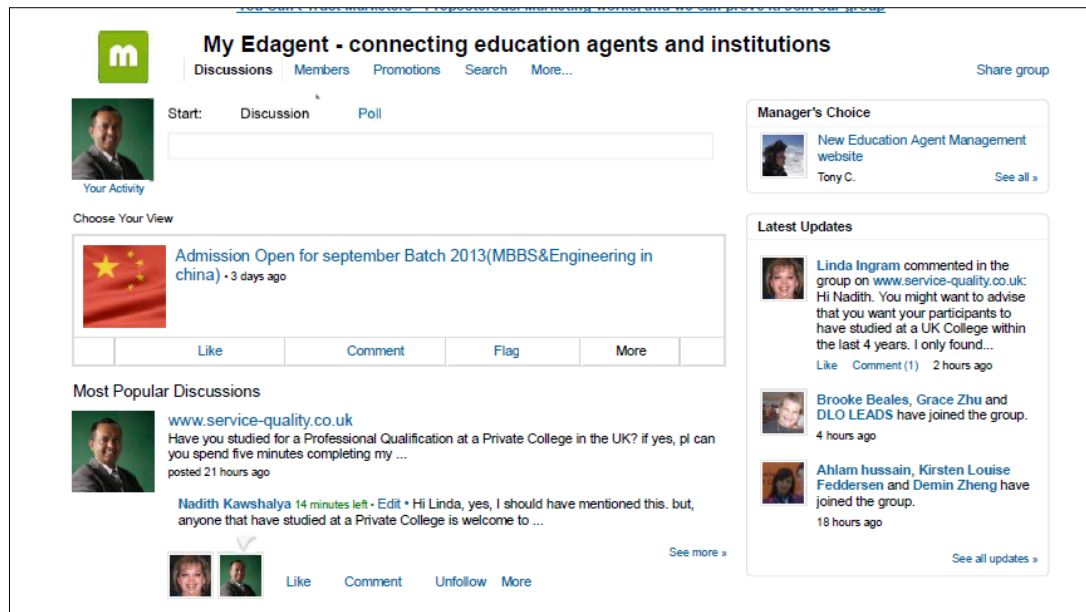
Diagram 24: discussion Forum posting at My EdAgent

As seen from the image above, the survey link was promoted via popular discussion forums to create awareness and obtain support from stakeholders. Many forums encourage wider participation and discussion of the topic.

In addition, further postings were made at awarding body forums, as many students at private colleges visit these forums for details of their qualification. The following image shows an example of the post made on The Confederation of Tourism and Hospitality's student forum.

Diagram 25: student discussion forum of Confederation of Tourism and Hospitality

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As seen from the image above, awarding bodies play a key role in private colleges in the UK by not only providing professional qualifications during students' stay at their institution, but also offering continuous professional development opportunities once they have completed their qualification. Therefore, awarding body's posts of the survey is considered a good and effective method in attracting both current and past students.

Finally, the following mage shows the total number of links made by third parties to the official website at www.service-quality.co.uk, as of April 2014.
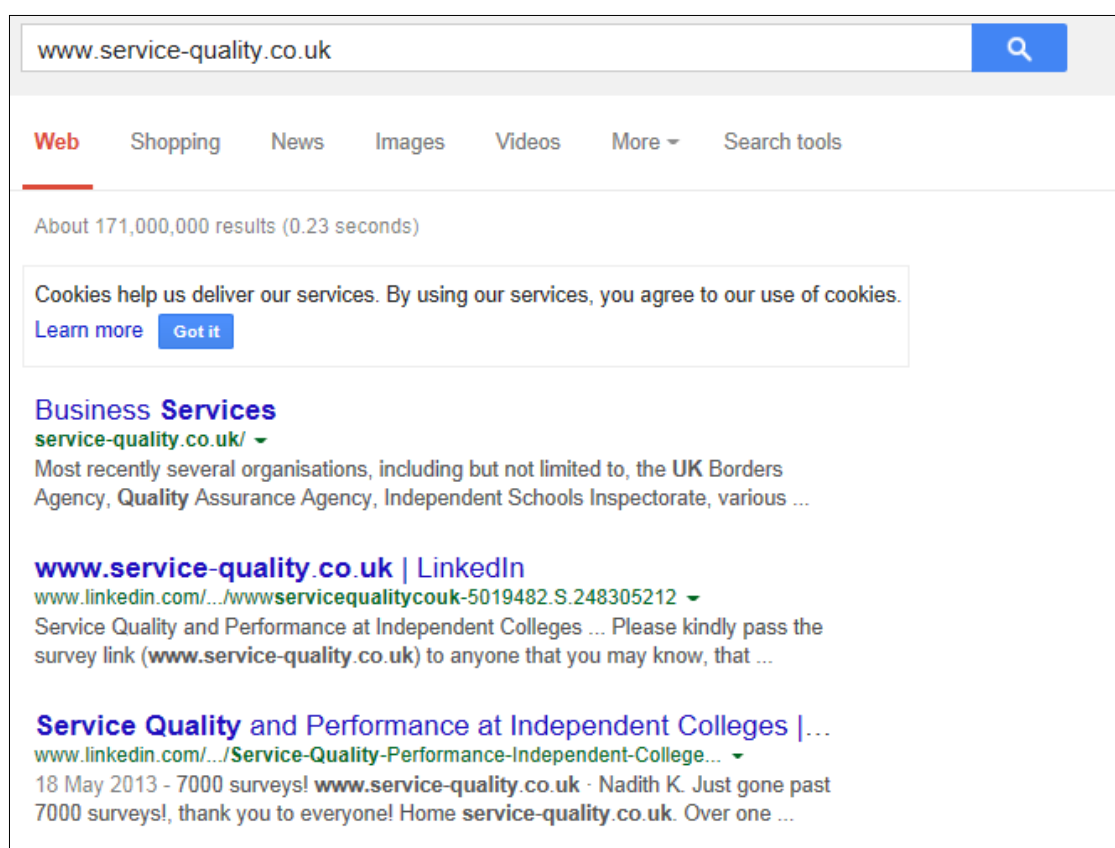
Diagram 26: Google search of www.service-quality.co.uk

The above image of Google ®, shows how the survey and the survey website have been linked by online forums, which shows the interest generated by the population. Overall, the online survey was well received by the participants and was evidenced by the enthusiasm shown by key stakeholders in sharing the survey link and encouraging students to participate in the study. The next three chapters look at the survey findings in detail.

6.11 Chapter summary

As the second chapter of methodology and the initial conceptual model section, this chapter built on the understanding of the research methodology obtained in chapter five. This chapter specifically looked at the development of the conceptual model, incorporating the five service quality dimensions, by using a student focus group, expert panel, pilot study and proofreaders.

This chapter also discussed the choice of participants in the focus group, expert panel; pilot studies as well as proofreaders to ensure a good variety of participants have been included. Further, how

the initial findings were narrowed down into identifying that the five service quality dimensions have also been discussed.

Each service quality dimension was then looked at in detail to understand what has been covered in each dimension, which then leads onto creating the interlinked service quality diagram.

Finally, this chapter also discussed the strategy adopted to distribute the online survey questionnaire to reach student population internationally, by employing aspects of social marketing, websites as well as stakeholders associated with private colleges in the UK.

Chapter 7:

The measurement instrument

Context and the purpose of the research

Chapter 1

Introduction and the context of the research

Chapter 2

Independent Education Sector in the UK

Chapter 3

Literature Review – Service Quality and Concepts

Chapter 4

Literature Review – Service Quality Models

Methodology and the initial conceptual model

Chapter 5

Research Methodology

Chapter 6

Research Methods – Application of the research

Chapter 7

The measurement instrument

Data analysis and the Service Quality Model

Chapter 8

Analysis of distribution, reliability and validity

Chapter 9

Chapter 9A

Findings and analysis of **Flexible**

Chapter 9B

Findings and analysis of **Market Driven**

Chapter 9C

Findings and analysis of **Assurance**

Chapter 9D

Findings and analysis of **Customer Focus**

Chapter 9E

Findings and analysis of **Focus Practitioners**

Chapter 10

Development of the **final model** and discussions

Conclusions

Chapter 11

Conclusions and practical application of the conceptual model

7.0 Chapter introduction

As the final chapter of the section two, methodology and the initial conceptual model, this chapter aims to look at the online questionnaire in detail by looking at individual questions, rationale behind those questions and how the questionnaire is formed to measure the initial conceptual model.

The chapter begins by looking at the overall questionnaire, before proceeding on to analysing each of the five service quality dimensions and the respective questions within each dimension.

Where applicable, the feedback received from the student focus group, expert panel, pilot group, as well as proofreaders has been incorporated to create an overall understanding behind each question in the survey, by bringing in the findings of chapters five and six.

7.1 The Questionnaire

As described in the previous chapter, an online survey was made available to the population from 1st June 2013 to 30th November 2013. The survey was promoted through a variety of methods amongst the population, since May 2013, via a dedicated website, social media and key stakeholder groups associated with private colleges in the UK. The survey was available for all students who are currently studying or have studied at a private college in the UK during the past four years, and coincides with the commencement of this research and the significant changes that have been taking place in the wider political and socio-economic environment.

The distribution time frame was specifically chosen to encourage wider participation to include students who have just completed their examinations before the summer break, as well as those students who will start new qualifications in the autumn. In addition, those who have studied at a private college in the UK four years preceding the commencement of the survey were also invited to take part in the study, as long as they are 17 years of age and above at the time of taking their respective study programmes.

7.2 Survey results analysis – An overview

In total, 12,776 attempts have been made to complete the online survey from 1st June to 30th November 2013. This chapter aims to look at the results in brief, mainly through graphical illustrations. The next chapter will focus on the detailed statistical analysis by calculating various statistical measures to determine the validity and the reliability of the data.

As a part of taking the online survey, the participants were firstly invited to read a cover letter which includes some contextual information on the research, and thanking them for taking part in the survey. The cover letter also provided a brief overview of the structure of the survey and how long it might take to complete, along with the eligibility criteria and the fact that all questions are mandatory. A copy of the full survey including this cover letter can be found in the appendix.

At the end of the cover letter, participants were required to proceed to the screening question to ensure that they meet the requirements before taking part in the survey by clicking the 'proceed' button. This also ensures that all participants have read the cover letter and the information contained within the letter. This survey did not collect the data of those that have read the cover

letter but decided not to proceed with the survey, as this was deemed irrelevant to the analysis of data.

Screening question

The first question was intended to act as a screening question to ensure that respondents meet the two survey pre-requisites: that the respondents are 17 years of age and above and that they are currently studying, or have studied during the last four years, at an independent or private college in the UK.

Answered: 12,775	Skipped: 1	
Answer Choices	**Responses**	
I confirm that I meet the above two conditions	**99.35%**	12,692
No, I don't meet the above conditions	**0.65%**	83
Total		**12,775**
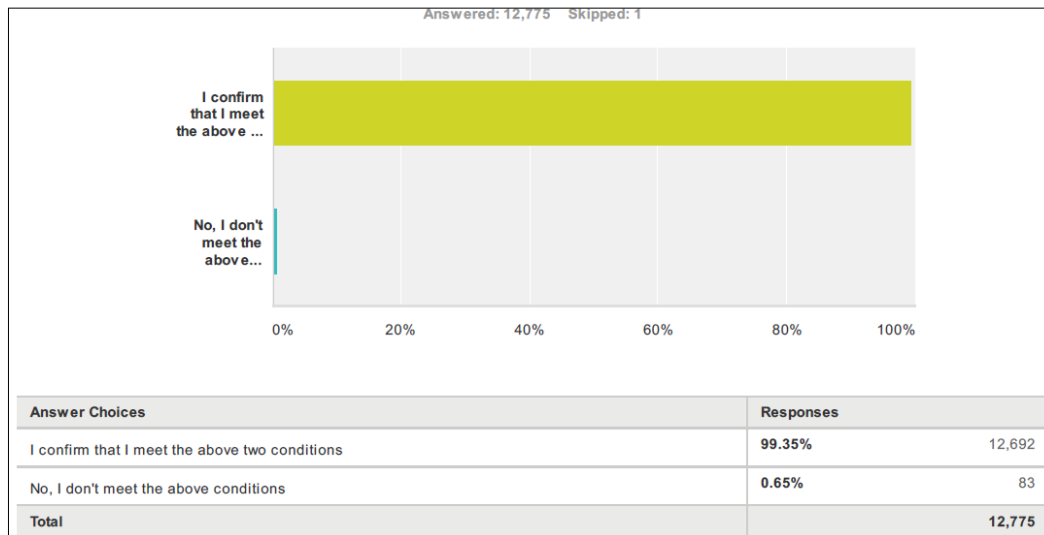
Diagram 27: question one - screening question

As seen from the diagram above, the total number of participants who attempted the screening question were 12,776, out of which one participant had exited the survey prior to attempting this question. There were 83 participants that did not meet the two survey conditions and therefore did not proceed to complete the full survey. These individuals were directed to an exit message thanking them for their interest in the survey and inviting them to follow the study via the dedicated website. Therefore, 12,692 participants confirmed that they have met the two conditions and therefore were invited to complete the rest of the survey.

7.3 The survey structure

The screening question was then followed by 22 questions relating to the five service quality dimensions as identified during focus groups and expert panel stages. The structure of the reminder of the survey was therefore as follows:

Service Quality Dimension	Number of Questions/statements	Question numbers
Flexibility	5	2,3,4,5 and 6
Market Driven	4	7,8,9 and 10
Assurance	5	11,12,13,14 and 15

		Question 15 was set as a reverse question, and as a part of the data analysis the scores for this question will be reversed prior to analysing of data
Customer Focus	4	16, 17, 18 and 19
Focus Practitioners	4	20, 21, 22 and 23 Question 21 was set as a reverse question, and as a part of the data analysis the scores for this question were reversed Question 23 requires respondents to identify whether they are a Home/EU student or an International Non-EU student. Based on their response, either question 24 or 25 was given to answer.

Table 20: the survey structure

In addition to the 22 questions above, participants were also asked to complete four further questions as follows:

Question 26:

This question requires the respondents to rank the service quality dimensions in the order of importance to them in choosing to study at a private college in the UK.

Question 27:

This question requires respondents to identify whether they are male or female.

Question 28:

This question required respondents to identify how may courses they have studied at an independent college in the UK.

Question 29:

This question required respondents to identify their age range out of six groups i.e., 21 years and under, 22 to 34 years, 35 to 44 years, 45 to 54 years, 55 to 64 years and 65 and Over.

During the survey all participants will be able to see a progress bar which shows how far they have progressed through the survey. In addition, once they have completed the last question, they were given an acknowledgement screen showing that their participation data had now been saved and thanking them for their valuable time.

The rest of this chapter will now look at the questions of individual service quality dimensions and the feedback gathered under each statement, with graphical illustration of data collected and a description of the overall responses, rationale for the question and the supporting information provided as a part of the questionnaire, which was derived from the focus group and pilot study.

7.4 Flexibility – Questions 2 to 6

Flexibility is referred to as the number of alternative options offered by the participant's private college with regards to the qualifications offered, study modes, entry requirements and assessments. In addition, the complexity, or the simplicity of the application process, the ability to change between qualifications, study modes and courses in the event that a student did not wish to continue on the course they had enrolled in, are also covered under this service quality dimension.

7.4.1 Question 2

My College offers regular start dates throughout the year, so I can start my study program without having to wait too long.

This statement requires participants to think of a particular course and how long they would have to wait for their course to commence during a given academic year. For example, participants are expected to think of a variety of start dates for a particular qualification through the year, and whether they were offered multiple intakes to start their studies.

As per the feedback received from the initial pilot study and the expert panel, in addition to the statement, participants were also given the following additional information:

'Our initial survey showed that most British universities and state Colleges only offer one major start date for degree entry programmes, usually in September. So, if a student missed this entry point, they usually have to wait for an entire academic year to commence their studies. Typically, independent colleges offer several start dates throughout the year, meaning students who have missed a particular start date do not have to wait too long for another opportunity to start their study programme'.

7.4.2 Question 3

My College offers flexible entry requirements and is willing to accept a variety of evidences, including my relevant work experiences, as a part of my admissions application.

The second statement requires the participant to think about the flexibility of entry requirements used by their private college and the simplicity of the registrations process itself. They have been asked to think of any informal evidences used as the entry requirements during their application process and whether they have used their previous work experience in lieu of formal academic qualifications.

'Our initial survey showed that most British universities and state colleges only accept standard entry requirements. For example students are required to meet specific English language requirements, such as IELTS and TOEFL requirements, as well as specific school leaving qualifications, such as A-Levels, Baccalaureates, and so on. Alternatively, many

independent colleges accept work experience as well as other non-accredited qualifications as a part of their admission process'.

<u>7.4.3 Question 4</u>

The enrolment/admission process of my College is easy to follow.

The third question under the Flexibility category and requires respondents to provide feedback on the simplicity of the application and enrolment process, and to think of how they have applied, and how quickly they received responses from their college.

As per the feedback received from the initial pilot study and expert panel, in addition to the questions, the participants were given the following additional information:

'Our initial survey showed that most British universities and state colleges require students to complete lengthy application forms and submit confidential references. The usual application processing time is around 8 to 10 weeks. However, many independent colleges offer a simple online application process, and admission decisions are made within a couple of days'.

<u>7.4.4 Question 5 - statement</u>

I have a choice of different study options, such as full time, part time, online, as well as weekend and evening lessons at easy to access study locations.

The fourth question under the Flexibility category requires respondents to provide feedback on the different study options offered and the accessibility of study locations. This statement requires participants to think of the variety of study options and locations offered by their college as a part of admissions. Also in the supporting information, a particular reference was made to their eligible study options. For example, students who are seeking a obtain a visa to study in the UK are required to study as a full time student, therefore other options are not applicable to them. The same goes for those Home and EU citizens applying for qualifications that are supported by funding arrangements and loans. As per the feedback received from the initial pilot study and expert panel, in addition to the questions, participants were given the following additional information:

'Our initial survey showed that most British universities and state colleges are generally located at a single location, and due to their size, these locations tend to be outside business and city centres. Independent colleges generally use smaller study locations, meaning students can choose to study at a variety of locations that are typically more convenient.

In addition to convenient study locations, many independent colleges also offer a variety of study modes such as face to face, online and part time.

When answering this question, please also consider study options that you are eligible to study. For example, if you are an international student and only allowed study as a full time student, think about the choices offered within that category'.

It is easy to switch to a different qualification or study mode, if I found my current qualification is not suitable for me.

The fifth and final question under the Flexibility section requires respondents to provide feedback on the ease of switching study modes and qualifications. This question requires participants to think of an instance or a possible future instance, where they may have to change their course or study option due to work or personal commitments. As per the feedback received from the initial pilot study and expert panel, in addition to the questions, participants were given the following information to aid with their answers:

'Our initial survey showed that most British universities and state colleges generally implement a lengthy academic and administrative process if a student wishes to change their study mode or their qualification. On the other hand, independent colleges follow a simple and easy process if a student decides to change their study mode or the qualification they are studying'.

7.5 Market Driven – Question 7 to 10

Market Driven shows how a private college reacts to market changes and dynamics and continues to operate as a customer centric organisation. Market changes and other dynamics in areas such as course fees, and the level of support services, such as careers support, face to face learning hours, personal tutoring, learning and study materials, along with various other facilities provided by the tutor and the institution. The number of students in a particular classroom and the attention given to them by a lecturer or a tutor are also valued and considered under Market Driven.

The four questions numbered 7 to 10 have been formed to gather information on market driven qualities which are discussed below.

7.5.1 Question 7

My college's tuition fees are competitive to other similar providers.

This statement requires participants to think of instances where they found the same qualification available elsewhere at a higher or lower fee or even whether they felt their chosen qualification reflects good value for money and a worthy investment. For example, did their institution offer a price match with similar providers or any incentives to attract them to that particular institution?

As per the feedback received from the initial pilot study and expert panel, in addition to the questions, participants were given the following additional information:

'State university tuition fees are set by the government and not competitively driven. However, in the case of independent colleges fees are set by the market and driven by customers. Students are therefore able to compare the prices for various providers and choose the best option that they consider offers them best value for money'.

7.5.2 Question 8

I have received simple study advice, for example I was made aware of what books to read and what assignments to complete for each subject.

This statement requires participants to think of study support and how well their private college prepared them for the examinations and assessments with the awarding organisation. For example, did they receive a lengthy book list to read? Or did their college provide them with a key reading text supported by further examination tips, all focused on passing their qualification from the beginning of their study programme?

As per the feedback received from the initial pilot study and expert panel, in addition to the questions, participants were given the following additional information:

'Unlike universities and state colleges, independent colleges generally offer qualifications which are studied intensively. Usually students don't have lengthy summer holidays and study for their qualification throughout the year.

Independent colleges therefore focus of students passing a particular module. In many cases, rather than providing a whole list of essential and recommended reading materials, independent colleges usually provide students with one or two key books to read, therefore focusing on passing the exam/assessment at the first attempt'.

7.5.3 Question 9

My college offers me flexible payment options, such as instalment payment plans, if I need it.

This statement requires the participant to think of how they have arranged to pay their course fees. For example, did their private college offered flexible instalment plans, or did they encourage them to pay the full fee up front, but gave them a reduction of fees for paying the fees in full? Further, how did their private college react to their changing financial circumstances?

As per the feedback received from the initial pilot study and expert panel, in addition to the questions, participants were given the following additional information:

'Many independent colleges offer flexible payment plans and usually offer students discounts and payment plans. In many instances such colleges do not charge extra fees for instalment plans. However, many state run universities and colleges are very strict with their payment plans'.

7.5.4 Question 10

I was offered (or have access to) extra support, for both academic and non-academic matters.

The final statement under the Market Driven section requires respondents to think of an instance where they have to contact their lecturer or the student administrator, and how

easy or difficult was it to get in touch with them. Once they get in touch with them, did they answer their queries on time? Participants have also been expected to think of the ease of gaining access to these key personnel within their private college.

As per the feedback received from the initial pilot study and expert panel, in addition to the questions, participants were given the following additional information:

'Due to the smaller size of many independent colleges, students usually have access to staff without necessarily having to book an appointment. Students can approach tutors as well as non-academic staff and seek advice, if necessary'.

Now let's look at the third service quality dimension, Assurance.

7.6 Assurance – Questions 11 to 15

The five statements under this service quality dimension refers to aspects of confidence and the recognition of qualifications offered by private colleges in the UK. For example, assurance refers to the forms of guarantees and warranties of compliance of the actual qualifications and how private colleges work with external awarding bodies and universities to provide qualifications that are not only recognised in the UK by higher education providers and universities, but also internationally by employers. In addition, Assurance also looks at how the overall quality assurance is managed by the respective private colleges by taking part in both mandatory and optional quality assurance audits provided by governmental or nationally recognised organisations.

7.6.1 Question 11

All qualifications offered by my education institution are accredited and approved by a recognised awarding body or a university.

This question requires the participants to think of the credibility of the qualification gained, or in the process of achieving. For example, who awards the qualification and whether the qualification has international currency? Can they use the qualification to further their careers or studies? This question also encourages the participants to think of the overall recognition of the private college in general, by identifying whether the particular private college has participated in respective organisational accreditation and/or a quality assurance programme offered by a recognised national organisation.

As per the feedback received from the initial pilot study and expert panel, in addition to the questions, participants were given the following additional information:

'Qualifications offered by independent colleges are awarded by a recognised awarding body or a university. This is mainly because independent colleges don't usually have the ability to offer their own qualifications, such as a university or a state funded college'.

7.6.2 Question 12

From the beginning of my course, my lecturers and tutors focused on passing the examination/assessment for my qualification.

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This statement requires participants to think of the assurances and guarantees offered in terms of the examination success. For example, did their private college give them confidence in passing their examinations offered by the awarding organisation and did their lecturers and administrators prepare them well for the exams and assessments? Participants are encouraged to think that the ability to successfully complete a qualification which they have paid for as a part of a guarantee, and require seeing that it remains the responsibility of their private college to provide the full support, assistance and knowledge to enable them to succeed in their chosen qualifications.

As per the feedback received from the initial pilot study and expert panel, in addition to the questions, participants were given the following additional information:

'Independent colleges are in most cases commercial organisations. As a result, they focus on students passing examinations set by external awarding bodies as this is what their fee-paying students expect. Courses are designed and concentrate on examination/assessment technique from the beginning'.

7.6.3 Question 13

My college offered me options to further my studies by either studying for a higher level qualification or transferring to a university degree qualification such as a 'top up' degree.

This statement is closely linked to the recognition of the qualification as whether their private college offered career progression and higher educational opportunities, should they wish to take them. Many private colleges, as explained in chapter two, work in partnership with universities to offer students higher educational opportunities leading to degree and postgraduate level qualifications. Therefore, this question specifically requires participants to validate this claim.

As per the feedback received from the initial pilot study and expert panel, in addition to the questions participants were given the following additional information:

'Most independent colleges work in partnership with universities to offer students advance entry. For example, you can study for an accredited diploma qualification at an independent college and then use that qualification to gain exemptions at a university'.

7.6.4 Question 14

My college holds relevant approvals and accreditations to offer qualifications, for example the accreditation from an awarding body, or university.

Linked to question 11, this question emphasizes the overall accreditations and approvals held by the particular private college. As described in chapter two, private providers may seek organisational accreditations from the Quality Assurance Agency (QAA) or Independent Schools Inspectorate (ISI) amongst other accrediting organisations such as the British Council, British Accreditation Council and so on. This question therefore encourages the participant to look at their organisational accreditation and decide whether their private college holds all relevant approvals.

As per the feedback received from the initial pilot study and expert panel, in addition to the questions, participants were given the following additional information:

'There are several bodies that offer accreditation services to independent colleges. For example, independent colleges that are planning to recruit students from NonEU countries are required to be approved by the UK Border Agency as an Educational Sponsor and Quality Assurance Agency's or Independent Schools Inspectorate. On the other hand, independent colleges can also be accredited by organisations such as awarding bodies, universities, the British Council, British Accreditation Council and so on.'

7.6.5 Question 15

This question was set as a reverse question in line with questionaires by Abdullah (2006a) and Parasuraman et al., (1985), to assist in validating the overall reliability of the survey. The focus group outcome shows that students are not concerned with the number of diverse qualifications offered by their private college. In fact many participants saw that having a few specialised qualifications as a positive aspect of their college and feel that by just focusing on one area their college will able to attract specialised lecturers and tutors and become an expert in that area. This was supported by specialised independent providers such as the Financial Training Company, which specialises in finance and accounting qualifications, London School of Marketing, Oxford College of Marketing, where they specialise in marketing qualifiations.

I'm concerned as my College only offers a limited number of specialist qualifications, as I would prefer to have a wide variety of diverse qualifications to choose from.

As described above, this question requires participants to look at the importance of specialist providers. For example, whether they prefer their private college to carry a diverse and large number of qualifications with no expertise in any area, or carry a small number of qualifications in one particular subject area with good specialist knowledge.

As per the feedback received from the initial pilot study and expert panel, in addition to the questions, participants were given the following additional information:

'There are several UK universities that offer over 800 qualifications in very diverse areas, but many independent colleges offer only a few qualifications in specialist areas and focus in those areas. For example, most independent colleges focus on business related subjects or English language training, rather than offering a wider range of qualifications.'

The fourth service quality dimension is Customer Focus. The survey consists of four statements under this category as follows:

7.7 Customer Focus – Question 16 to 19

Customer focus looks at how well the particular private college meets the changing needs of their students. Areas such as higher level of individual attention by having better student lecturer contacts via smaller class sizes, and how the college adapted to changing customer behaviours by adding

more online resources that are accessible via laptops, tablet computers as well as smart mobile devices, are covered under this category. Further, areas such as the support provided in terms of registering with professional bodies, staff knowledge in the area, as well as the ease of communication with key staff members are also included. As described earlier, this dimension consists of four statements where participants are required to indicate their level of agreement or disagreement.

7.7.1 Question 16

The class sizes of my college are relatively small, so I've had plenty of opportunities to ask questions from my lecturers and tutors.

As a part of this statement, participants are encouraged to think of an instance where they have to ask a question or enter into a discussion with their lecturer and think how easy (or difficult) the process was. They have been asked to think of the number of students in their particular lesson, when the student had to ask that question. Further, participants were then asked to compare this experience, in asking a question from the lecturer, with a large seminar, where a few hundred students attend.

As per the feedback received from the initial pilot study and expert panel, in addition to the questions, participants were given the following additional information:

'Many universities and state colleges use large lecture theatres and deliver lectures to large groups of students. On the other hand, independent colleges focus on smaller class sizes. This format allows students to approach their lecturer and ask questions during a lecture'.

7.7.2 Question 17

I was given access to study facilities such as online resources, so I can study even when I'm not in the College.

The aim of this question is to identify how private colleges in the UK have embraced IT as part of their qualification delivery by providing students with easy access to learning materials. During the focus group discussions it was evident that students valued aspects such as having study materials, lecture notes and case studies online, as well as online discussion groups, with many preferring private college's use of social media such as Facebook and Twitter to conduct discussion groups. Focus group students acknowledged that many public sector institutions provide access to online libraries and academic journals, which require access via a computer, whereas students expect to have access via tablet computers and smart phones and integrate study with day to day activities such as accessing social media.

As per the feedback received from the initial pilot study and expert panel, in addition to the questions, participants were given the following additional information:

Most universities and state colleges have large physical facilities such as libraries. Conversely, independent colleges have various study locations and smaller premises. And a a result,

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independent colleges usually focus on providing students with access to online resources and encourage students to use online resources to aid their studies.

7.7.3 Question 18

I can contact both academic and non-academic staff members via email, Skype or Facebook or on mobile.

The purpose of this statement specifically is to identify whether participants engage with day to day computer software such as Skype, email, Facebook and smart phones and how their chosen private college integrated these devices and programmes into their day to day study experience. For instance, whether students contact key staff members using these technologies In the same way they contact their friends and family members.

As per the feedback received from the initial pilot study and expert panel, in addition to the questions, participants were given the following information to aid with their answers:

'Many independent colleges allow students to communicate with their staff members via modern communication forms such as Facebook, twitter, Skype and mobile phones. If a student requires an enrolment confirmation letter for any purpose, they can simply request this via email, whereas at a university students may be required to request this in person.'

7.7.4 Question 19

My educational institution offers assistance in registering with my qualification awarding body.

This particular statement intends to show whether private colleges hire staff members with qualifications that are similar to those studied by their students. For example, students studying for a specialist accountancy qualification may be supported by a staff member who has studied for that qualification in the past, and knows the process and can assist students with specialist support and information on how to register for examinations, memberships, and so on. The student focus group found this as a very appealing aspect of private colleges, as they felt the support staff more directly related to their own personal circumstances than at a university.

As per the feedback received from the initial pilot study and expert panel, in addition to the questions, participants were given the following additional information:

'Due to the reliance of working with external awarding bodies, independent colleges usually assist students in registering with their respective qualifications provider/awarding body. In many cases, independent colleges collect certificates from awarding bodies and distribute them to students as well. In some cases, independent colleges collect the respective registration and membership fees on behalf of their students and pay these to awarding bodies, to make the process simpler to students'.

The fifth and final dimension refers to the concept of relevant practical work expertise of staff members within the private colleges in the UK. A total four questions have been included under this category.

7.8 Focus Practitioners – Question 20 to 25

Focus Practitioners refers to the relevant experience and specialist knowledge held by staff members within private colleges in the UK. During the focus group discussions many students highlighted the importance of lecturers sharing their own experiences to explain theories and concepts. Having experienced professionals/practitioners, as opposed to pure academics, is valued by students, as they see this as more beneficial to their careers.

7.8.1 Question 20

My lecturers and tutors have a good level of practical work experience and they always take their own work experience to explain difficult theories.

This question requires participants to think of an instance where their lecturer used his or her own experience to explain a complex issue or a concept during their studies. Participants are encouraged to consider how valuable that particular contribution was to their studies and careers, and not only how the lecturer enabled them to understand a complex academic concept, but also demonstrated how it applies in practice.

As per the feedback received from the initial pilot study and expert panel, in addition to the questions, participants were given the following additional information:

'Many lecturers who work at independent colleges have several years of practical work experience, and are not necessarily academics. Many lecturers teach on a consultancy or part-time basis. As such, lecturers are more likely to share their own experiences with students and use them to explain complex theories'.

7.8.2 Question 21 - statement

I'm concerned that my educational institution does not have a wider range of research interests, such as Universities.

Similar to question number 15, this question was also a reverse question, where answers will be reversed to gather the correct scores. During the focus groups, respondents confirmed that they chose to study at a private college as it focuses on qualifications that are professionally driven, as opposed to research or academically driven. Further, respondents believe that they chose to study at a private college as they offer insights into real organisations and how they operate to achieve their objectives. Focus group participants also stated that they feel that they would rather have those leading subject experts spend time in lectures and teaching them, rather than spending time on research activities.

This question requires participants to think of their objectives in studying at a private college in comparison to a research focused academic institution. Most private colleges do not have access to research grants and government funds; as a result they focus on areas that are commercially profitable and in demand. For example, most private colleges – as discussed in chapter two – focus on vocational and professional qualifications where even the academic qualifications are not at doctoral level. Any investment that they make is also focused on improving commercial capabilities rather than developing research interests. Lecturers and

tutoring staff at private colleges tend to focus on their work, with many working as freelance consultants and have little or no research interest as a part of their lecturing activities.

As per the feedback received from the initial pilot study and expert panel, in addition to the questions, participants were given the following additional information:

'Many independent colleges offer qualifications that are either leading to a professional qualification or an academic qualification, usually up to a Master's degree. Therefore, independent colleges don't usually have a research profile unlike universities. For example, a typical university may offer qualifications ranging from business to medicine and engineering. However typically, an independent college will only focus on one or two subject areas.'

7.8.3 Question 22

It is easy for me to contact key personnel in the College if I have any issues or complaints, and I do not necessarily have to make appointments in advance to meet most of the staff.

The purpose of this statement is to understand that informalities exist within private colleges. Whether students feel staff members are more approachable may be a result of their customer focus or having smaller class groups, in comparison to formal environments that exist within larger public institutions. Participants were required to think of an instance where they were unhappy and needed to speak with someone urgently, and whether they managed to speak with them at ease and with confidence.

As per the feedback received from the initial pilot study and expert panel, in addition to the questions, participants were given the following additional information:

Most independent colleges are small businesses therefore they tend to have a flatter and more open business structure.

'This means that students can often have access to key personnel within the college without having to go through a bureaucratic appointment process to meet key personnel, unlike at university'.

7.8.4 Question 23, 24 and 25

Question 23 refers to general advice and assistance given to students at private colleges. During focus group discussions these general requirements vary significantly with the origin of students, and whether they are home or EU or international students.

Therefore, when designing the survey, prior to answering the last Focus Practitioner statement, participants were asked to identify their origin.

What is your student status?

On the basis of the answer given to this question, participants' were then directed to either question 24, for non-EU students, or question 25, for EU students.

For international students: I was given advice and guidance on how to apply for my student visas.

This particular statement requires participants to think of any support or assistance that they have received as part of their student visa application. In the focus group discussions, it was evident that the visa application process is a key concern for many non-EU students and they would like to receive both advice and guidance in making their visa application. They value the input of staff members and educational agents, in applying for their visas.

As per the feedback received from the initial pilot study and expert panel, in addition to the questions, participants were given the following additional information:

'Many independent colleges use educational agents to support international student admissions. As a result, they tend to offer advice and assistance on completing visa application forms as well as guidance in submitting application forms for visa renewals'.

Those that have chosen the EU option for Question 23 were directed to the question below.

7.8.4.2 Question 25

For Home students: I was given assistance on my funding application or offered flexible payment terms.

For most home and EU students, funding application and support represents the most important aspect of advice. Many EU students apply for sponsorship from their companies, loans from banks or even government backed study loans. Many such applications are complex and require specialist advice to complete. Therefore, any support and advice provided by their college is a key factor for many students.

As per the feedback received from the initial pilot study and expert panel, in addition to the questions, participants were given the following additional information:

'If you are a home/EU student and funded by a scheme that supports small businesses such as Business link independent colleges usually support your application and work around the course schedule to meet funding requirements.'

In addition to answering the statements above, participants were also required to answer several demographic questions, which have been analysed as part of the appendix.

However question number 26 is of particular importance to the study as this question invites participants to rank the service quality dimensions in the order of their importance to the participants.

7.9 Question 26

Instruction to this question – 'Now, please put the following five categories in the order of importance to you. (1 = Most Important and 5 = Least Important)'

The purpose of the question is to understand whether any particular service quality dimension has more importance over others. Therefore private colleges can pay more attention to improving measures associated with that particular dimension. This question was specifically included as the discussions during student focus groups proved inconclusive.

Thie question was then followed by, as described in 7.3 above, three demograhic questions that requires the participant to identify their gender, age group as well as the number of qualifications studied at a private college in the UK. These questions have been included for inferential statistical analysis purposes, to determine any variances of these demographics.

7.10 Chapter summary

This chapter formed the last part of methodology and the initial conceptual model section of this report, by bringing together the findings of section one of the report as well as the findings of chapters five and six, by demonstrating the development of the questionnaire.

Therefore, this chapter begins by looking at the overall structure of the survey instrument before examining the rationale of each of questions within the survey. Questions were discussed within each of the five service quality dimensions by linking the rationale of the inclusion of that question as well as the accompanying supporting information given to participants to interpret and contextualise the statements more effectively.

Conclusion to Section 2: Methodology and the initial conceptual model

Building from the first section of the context and the purpose of the research, section two of this report aims to provide a methodological understanding of the research and the development of the survey questionnaire. In order to achieve the section objectives above, this section has been divided into three chapters, with chapter five looking at the research methodology; chapter six focusing on the implementation of the research strategy in forming the initial conceptual model; and chapter seven looking at the measurement instrument and the rationale behind the individual statements within that instrument.

The section below explains the objectives for this section and how these objectives have been achieved;

Understand the researcher's ontological, epistemological views and how they have influenced the choice of research philosophy, strategy and methods?
This objective was achieved in chapter five, where this report discussed the ontological and epistemological views of the researcher and how these then influenced the choice of research philosophy i.e., critical realism, as well as research strategies.

Understand how the methodology applied in conducting focus groups, expert panel interviews, pilot studies as well as poofreading activities;
This objective was met in chapter six, where this report looked in detail at the process of identifying participants and conducting student focus groups, expert panels and how these findings were then used to develop the initial conceptual model and the subsequent survey instrument with the use of the pilot group as well as a group of proofreaders.

- **Develop the initial conceptual model and the survey instrument, and how the survey instrument has been distributed amongst the population?**
This objective was achieved in chapters six and seven, where this report discussed the use of the internet and social media as the key promotional tools of the survey. In addition, chapter seven specifically looked at the survey instrument and the rationale behind each question.

Now that this report has established the contextual and methodological understanding of the research, the next section will focus of data analysis with specific attention to validity and reliability of the measurement instrument before finally developing the modified empirical model.

Chapter 8:

Analysis of distribution, reliability and validity

Context and the purpose of the research

Chapter 1

Introduction and the context of the research

Chapter 2

Independent Education Sector in the UK

Chapter 3

Literature Review – Service Quality and Concepts

Chapter 4

Literature Review – Service Quality Models

Methodology and the initial conceptual model

Chapter 5

Research Methodology

Chapter 6

Research Methods – Application of the research

Chapter 7

The measurement instrument

Data analysis and the Service Quality Model

Chapter 8

Analysis of distribution, reliability and validity

Chapter 9

Chapter 9A

Findings and analysis of **Flexible**

Chapter 9B

Findings and analysis of **Market Driven**

Chapter 9C

Findings and analysis of **Assurance**

Chapter 9D

Findings and analysis of **Customer Focus**

Chapter 9E

Findings and analysis of **Focus Practitioners**

Chapter 10

Development of the **final model** and discussions

Conclusions

Chapter 11

Conclusions and practical application of the conceptual model

Introduction to Section 3: Data analysis and the service quality model

Building on from the contextual and methodological understanding from sections one and two above; section three aims to focus on data analysis and the development of the final service quality model for private colleges in the UK.

The aim of the section is to:

- Analyse data to identify patterns of distribution;

- Identify and assess, validity and reliability of the measurement instrument;

- Analyse the data trends for each service quality dimension;

- Explore options in improving the responsiveness of the service quality model and the measurement instrument.

In order to achieve the section objectives above, this section has been divided into three chapters with chapter eight focusing on the distribution of the data, reliability and validity. Whereas chapter nine, which also consists of five sub-chapters assigned for each one of the service quality dimensions, will look at specific data patterns and trends, and finally chapter ten will focus on the final service quality model, with a view to enhancing the responsiveness of the model as well as the measurement instrument.

8.0 Chapter introduction

As the first chapter of section three: data analysis and the service quality model, this chapter focuses on the distribution trends, reliability and validity assessments of the measurement instrument.

In determining the distribution of the sample data, this chapter specifically looks at the measures of central tendency, the measure of spread analysis using a variety of statistical tools, including boxplot and whiskers analysis and measures of shape.

This chapter will also analyse the reliability of the measurement instrument by calculating aspects of equivalency, stability and internal consistency of data. Statistical analysis techniques used in this area will include Cronbach's Alpha Coefficient, Correlation Coefficient amongst others.

Further the validity of the measurement instrument will be assessed via content validity, face validity, criterion-related validity and construct validity. A variety of statistical techniques will be adapted, which include aspects of principal components analysis, confirmatory factor analysis and correlation coefficient.

8.1 Data analysis

According to Field (2000), data analysis is a process of which assists decision making and helps to arrive at conclusions. It is a process of inspecting, refining, transforming and modelling data in order to achieve the goal of gaining useful information. This chapter analyses the data collected using the online survey instrument, as described in the previous chapter, by using several statistical techniques and tools.

8.2 Likert type scale

Further to the discussion in chapter five (sections 5.17 and 5.18), Gliem and Gliem (2003) described that Likert-type scales measure the degree to which a question or a statement is agreed or disagreed by the respondents. The most common scale ranges from 1 to 5 where 1 = strongly disagree, 2 = disagree, 3 = not sure, 4 = agree, and 5 = strongly agree. However, in this study the researcher has adopted a seven point Likert Type scale (7 = strongly agree, 6 = agree, 5 = agree somewhat, 4 = undecided/neutral, 3 = disagree somewhat, 2 = disagree and 1 = strongly disagree) in line with the studies conducted by Abdullah (2006a), Parasuraman et al., (1985).

The performance-only, seven point Likert-type measurement scale enabled the participants to express their feedback by identifying; a) a score between one and three as not meeting expectations, b) a score of four as meeting expectations and c) a score of five to seven as exceeding expectations. Therefore, the underlying assumptions of the scale corresponds to, for example, a score between one and three indicating dissatisfaction, with a lower end score indicates a higher level of dissatisfaction for that particular area i.e., a bigger negative service quality gap. On the other hand, a score between five and seven indicates satisfaction, with a higher score indicating higher level of satisfaction i.e., a bigger positive service quality gap. Finally, a score of four implies that the provider is meeting customer expectations, and therefore must focus on improving these areas to ensure customer satisfaction, which is comparable to zone tolerance as identified by Parasuraman (1995).

As described in the previous chapter, participants were asked to complete 22 statements measuring five service quality dimensions; flexible, market driven, assurance, customer focus and focus practitioners, using the seven point Likert-type scale.

Accordingly to Laerd (2014), once the data is collected, a good starting point is to conduct several descriptive statistical analyses to understand the nature of the data collected, such as patterns, therefore, descriptive statistics enables the researcher to present the data in a more meaningful way, which allows simpler interpretation of the data. Therefore two major areas of descriptive statistical analysis can be carried out as: measures of central tendency and measures of spread. Measures of central tendency measures the central position of the data set and understands the highest and lowest scores. On the other hand, measures of spread enable the researcher to understand the general spread of data and where and how any concentrations of data might have occurred (ibid).

8.3 Summary of participants

The following data summarises the profile of the participants of this study:

Total Number of respondents	12,775	
Home and EU students	6,060	49%
Non-EU students	6,319	51%
Male	6,517	53%
Female	5,770	47%
Studied one course at a private college in the UK	5,243	42%
Studies multiple courses at private colleges in the UK	7,041	58%
Age range:		
21 years and under	1,547	13%
22 and 34 years	4,363	35%
35 and 44 years	3,694	30%
45 and 54 years	2,066	17%
55 and 64 years	602	5%
65 and over	18	--

Table 21: data summary

As shown in the table above, the total number attempting the survey amounts to 12,775 with an equal distribution between home/EU and non-EU participants as well as male and female participants. 58% of the participants have studied more than one qualification at a private college in the UK during the last four years. In terms of age groups, 35% of participants are between the 22 and 34 years of age, with approximately a third between the age of 35 and 44 years, with under 21 year olds and over 45 year olds making up the rest. The discrepancy between the total number of respondents and other categories is due to participants exiting the survey early. However, all completed questions were taken into account during the statistical analysis.

8.4 Measures of central tendency – median, mode, mean and trimmed mean

A good starting point for a Likert type data analysis is to calculate the central tendency to determine the distribution of data (Field, 2000). According to Butler (1995), three measures of central tendency are the mean, the median and the mode. Butler (1995) further argued that even though statisticians refer to all three methods of calculating central tendency as average, the mean is considered as the official statistical average.

According to Field (2000), the median is the middle number or the second quartile. The following table shows the median figures for the five service quality dimensions.

Service Quality Dimension	Median
Flexible	5.0000
Market Driven	5.0000
Assurance	5.0000
Customer Focus	5.0000
Focus Practitioners	5.0000

Table 22: median figures of the service quality dimensions

As shown in the table above the median for all five dimensions is 5.0000, which corresponds to 'agree somewhat' in the seven point Likert scale used in the survey. On the hand, the mode is the most frequently occurring number. In this case it refers to the Likert scale number used by respondents the most number of times. The number with the highest frequency is perceived to be the mode (Field, 2000). The following table shows the modes of five service quality dimensions.

Service Quality Dimension	Mode
Flexible	5.0000
Market Driven	5.0000
Assurance	5.0000
Customer Focus	5.0000
Focus Practitioners	5.0000

Table 23: mode figures of the service quality dimensions

As seen from the two tables above, the median and mode numbers are the same across all dimensions. In a seven point Likert scale, the middle number as well as the most frequently occurring number was five, which corresponds to 'agree somewhat'.

However, mean, which is the official statistical average and widely used by researchers including, but not limited to, Abdullah (2006a), Parasuraman et al., (1985) as well as Cronin and Taylor (1992) in their studies, as opposed to median and mode. The table below shows the mean scores of individual service quality statements.

Service Quality Dimension	Question Number	Mean Score	Confidence Level at 95% (p>.05)
Flexible	Q2	4.9302	0.0180
	Q3	5.1851	0.0189
	Q4	5.1248	0.0177
	Q5	5.2297	0.0196
	Q6	5.0399	0.0171
Market Driven	Q7	5.1851	0.0183
	Q8	5.3900	0.0206
	Q9	5.3122	0.0211
	Q10	5.2294	0.0189
Assurance	Q11	5.1428	0.0180
	Q12	5.0989	0.0177
	Q13	5.0478	0.0178
	Q14	5.3009	0.0205
Customer Focus	Q15	4.5797	0.0243
	Q16	5.3104	0.0196
	Q17	4.9784	0.0165
	Q18	5.1864	0.0193
	Q19	5.2017	0.0191
Focus Practitioners	Q20	5.1168	0.0173
	Q21	5.2408	0.0255
	Q22	5.2757	0.0197
	Q23 (Q24)	4.7412	0.0301
	Q23 (Q25)	5.0798	0.0220

Table 24: mean scores of individual questions

As shown in the table above, the mean figures of individual statements are consistent with median and mode scores. The above, mean scores were calculated at $p > 0.05$. Therefore, for example, the sample mean score obtained for question two, 4.9302, is an accurate representation of the population mean at 95% confidence.

Further, the table below shows the overall Mean figures for overall service quality dimensions. As seen below, the mean figures for five dimensions once again near option five of the seven point Likert scale, in line with median and mode figures. According to Butler (1995), closer mean, median and mode figures are a good indication of a normally distributed data group.

Service Quality Dimension	Mean	Confidence Level at 95% (p>.05)
Flexible	5.1018	0.0082
Market Driven	5.2795	0.0099
Assurance	5.1476	0.0093
Customer Focus	5.0512	0.0093
Focus Practitioners	4.9102	0.0089

Table 25: mean scores of service quality dimensions

Once again, the mean scores are fairly consistent across the five dimensions at p > 0.05, meaning that for example the mean score of market driven, 5.2795, is an accurate reflection of the population mean at 95% confidence level. These scores are also comparable to Abdullah (2006a), where mean scores of 4.8, 4.6 and 4.5 were obtained on the 7-point Likert scale. Further, studies by Galloway (1998) obtained an overall mean score of 5.11, once again on a 7 point Likert scale, and once again consistent with the findings above. In addition, the above results are in line with research by Ganguly and Vanpariya (2014), where they have achieved the following mean scores for the SERVPERF model, which used a performance-only seven point Likert scale measure; Tangible (5.24), Reliability (5.26), Responsiveness (5.32), Assurance (5.45) and Empathy (5.22). Also studies conducted by Abdullah et al., (2012) involving airlines in Malaysia found the mean scores; Tangibles (5.65), Reliability (5.40), Responsiveness (3.55), Assurance (5.5) and Empathy (3.9). Therefore, the mean scores obtained in this study are more consistent in comparison with the studies mentioned above.

However, according to Field (2000), the above mean scores also show a negative skewness, as the mean is typically higher than the median. In this instance, the trimmed mean is an effective indication of the central tendency, as it removes the outer layers and takes the central distribution into account, thereby focusing on the interquartile range. The following table shows trimmed mean figures at 50%, which corresponds with interquartile mean.

Service Quality Dimension	Trimmed Mean at 50%
Flexible	5.1953
Market Driven	5.3744
Assurance	5.1466
Customer Focus	5.1855
Focus Practitioners	5.2423

Table 26: trimmed mean scores of service quality dimensions

The above diagram shows that the trimmed mean is fairly consistent across five dimensions, after excluding the lowest 25% and the highest 25% of the scores. However, it is worth noting that all five dimensions received a trimmed mean score of above 5.0, on a seven point Likert scale, corresponds to agree somewhat and agree indicators. Further, the mean figure for Market Driven is higher than

the other four dimensions, which shows possible negative skewness of data gathered in that dimension.

8.5 Measures of Spread – Variance and standard deviation

According to Field (2000), variance refers to the spread of numbers in a data set. The variance measures how far each number in the set is from its mean. Further, a variance value of zero indicates that all values within a set of numbers are identical and that all variances that are non-zero will be positive numbers. A large variance indicates that numbers in the set are far from the mean and each other, while a small variance indicates the opposite (Bulmer, 1979).

On the other hand, the standard deviation works closely with variance figures and gives an idea of how close (or how far) the entire set of data is to the average value, in this case the mean value. For example, data sets with a small standard deviation have tightly grouped and precise data. Further, data sets with large standard deviations have data spread out over a wide range of values (Field, 2000). The following table shows the respective sample variances and standard deviations of each question of the survey:

Service Quality Dimension	Question Number	Variance (Sample)	Standard Deviation (Sample)
Flexible	Q2	1.0677	1.0333
	Q3	1.1792	1.0859
	Q4	1.0239	1.0118
	Q5	1.2604	1.1226
	Q6	0.9671	0.9834
Market Driven	Q7	1.0986	1.0481
	Q8	1.3903	1.1791
	Q9	1.4520	1.2049
	Q10	1.1700	1.0817
Assurance	Q11	1.0514	1.0253
	Q12	1.0179	1.0089
	Q13	1.0288	1.0143
	Q14	1.3590	1.1658
Customer Focus	Q15	2.1194	1.4558
	Q16	1.2531	1.1194
	Q17	0.8862	0.9414
	Q18	1.2042	1.0973
	Q19	1.1880	1.0899
Focus Practitioners	Q20	0.9694	0.9845
	Q21	0.6622	0.8138
	Q22	1.2508	1.1184
	Q23 (Q24)	1.4680	1.2116
	Q23 (Q25)	0.7843	0.8856

Table 27: variance and standard deviation scores of individual questions

As seen from the table above the variance figures are consistent across the individual statements. For example, question 23 (first question) recorded the highest variance at 1.4680 with standard deviation of 1.2116, and question 21 scores the lowest variance of 0.6622 with a standard deviation of 0.8138.

Further, the table below shows the overall variance and standard deviation figures for each dimension:

Service Quality Dimension	Variance (S)	Standard deviation (S)
Flexible	1.1110	1.0540
Market Driven	1.2839	1.1330
Assurance	1.1231	1.0597
Customer Focus	1.3974	1.1821
Focus Practitioners	1.0298	1.0148

Table 28: variance and standard deviation scores of service quality dimensions

Yet again, as shown from the table above the variance figures are fairly consistent across the five dimensions, with customer focus (variance - 1.3974; standard deviation – 1.1821) with the highest variance and focus practitioners (variance – 1.0298; standard deviation – 1.0148) with the lowest variance.

Even though specific standard deviation figures of previous studies, in the development of SERVQUAL and HedPERF, are not available for review, the tables above along with the trimmed mean data show a consistent distribution of data in comparison with studies conducted by Fogarty (2000) and received the following standard deviation figures; Tangibles (3.0), Reliability (2.12), Responsiveness (2.25), Assurance (1.99) and Empathy (2.41) and Abdullah et al., (2012) obtained standard deviation scores of; Tangibles (1.2), Reliability (1.3), Responsiveness (1.6), Assurance (1.2) and Empathy (1.6).

Further, according to Field (2000), standard deviation and mean figures, must be closely interpreted in conjunction with standard error. The standard error is an indication of the reliability of the mean. For example, a small standard error is an indication that the sample mean is a more accurate reflection of the actual population mean.

Service Quality Dimension	Question Number	Standard Deviation (Sample)	Standard Error
Flexible	Q2	1.0333	0.0091
	Q3	1.0859	0.0096
	Q4	1.0118	0.0090
	Q5	1.1226	0.0099
	Q6	0.9834	0.0087
Market Driven	Q7	1.0481	0.0093
	Q8	1.1791	0.0104
	Q9	1.2049	0.0107
	Q10	1.0817	0.0096

Assurance	Q11	1.0253	0.0091
	Q12	1.0089	0.0089
	Q13	1.0143	0.0090
	Q14	1.1658	0.0103
Customer Focus	Q15	1.4558	0.0129
	Q16	1.1194	0.0099
	Q17	0.9414	0.0083
	Q18	1.0973	0.0097
	Q19	1.0899	0.0096
Focus Practitioners	Q20	0.9845	0.0087
	Q21	0.8138	0.0072
	Q22	1.1184	0.0099
	Q23 (Q24)	1.2116	0.0107
	Q23 (Q25)	0.8856	0.0078

Table 29: standard deviation and standard error scores of individual questions

As shown in the table above the standard error is near zero across all questions, meaning that the sample mean is close to the population mean, and that the sample is a fair and accurate reflection of the population (Lane, 2014). The table below shows a comparison of the mean, standard deviation and standard error for the five service quality dimensions.

Service Quality Dimension	**Mean**	**Standard deviation (S)**	**Standard Error**
Flexible	5.1018	1.0540	0.0093
Market Driven	5.2795	1.1330	0.0100
Assurance	5.1476	1.0597	0.0094
Customer Focus	5.0512	1.1821	0.0105
Focus Practitioners	4.9102	1.0148	0.0090

Table 30: standard deviation and standard error scores of service quality dimensions

Once again, the standard error of the sample is at near zero, which is a good indication of the accuracy of the sample mean. Even though the specific mean, standard deviation and standard error scores for the development of HEdPERF and SERVPERF models are not available for review, studies conducted by Renganathan et al., (2012), in the development of a new service quality model for the banking sector (BANKSERV), received the following figures of standard error across three dimensions; staff conduct (0.1), Credibility (0.08) and Communication (0.17).

The consistency of the standard error measures in this sample show that the mean figure is a fairly accurate estimation of the population mean. Looking at the standard error figures alongside standard deviations and mean, they show that the data is consistently distributed around the central point. However, it is important to understand the overall spread of data before making further decisions about the consistency of the overall data collected.

8.6 Box plot analysis

According to Lane (2014), a boxplot analysis is a useful visualisation for viewing and understanding how the data are distributed. A boxplot contains several statistical measures that can be explored after creating the respective boxplots. Further, a boxplot is a convenient way of graphically illustrating groups of numerical data through their respective quartiles and therefore identifies how the data is concentrated around the median.

The section below explores boxplots for individual service quality statements within each dimension before finally assessing the dimensions against each other.

Flexible

The following analysis shows a boxplot analysis of the five flexibility questions:
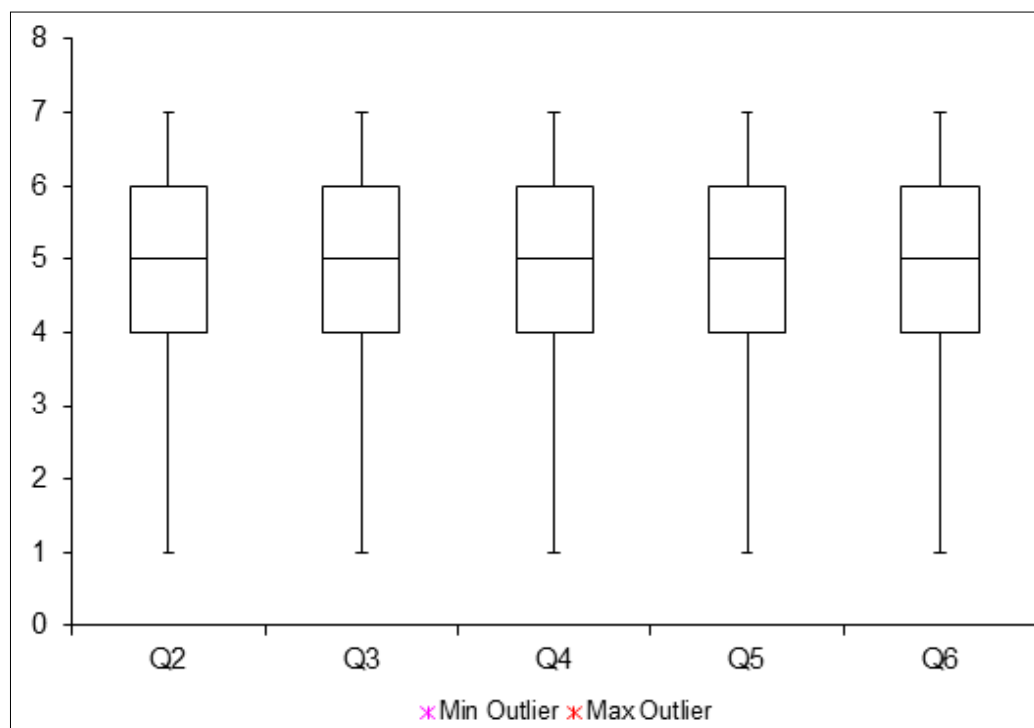
Diagram 28: boxplot and whiskers graph for flexible

Labels	Q2	Q3	Q4	Q5	Q6
Min	1	1	1	1	1
Q_1	4	4	4	4	4
Median	5	5	5	5	5
Q_3	6	6	6	6	6
Max	7	7	7	7	7
IQR	2	2	2	2	2
Upper Outliers	0	0	0	0	0
Lower Outliers	0	0	0	0	0

Table 31: boxplot and whiskers data table for flexible

As shown in the boxplot above, the five flexible questions drew identical measures with median (5), upper (6) and lower (4) quartiles and therefore the inter-quartile ranges are the same across all statements. The quartiles, ranging from 4 to 6 shows that most of the responses are between neutral and agree in the Likert scale. Therefore, as per the diagram above, the inter quartile range is 2 (6-4) and range is 7 (7-0). However, even though the data has been evenly distributed between the upper and lower quartiles of the boxplot for all the items evaluated in this dimension but the whisker pointing longer on the lower side shows that items are negatively skewed. The lowest and highest datum is still within 1.5 interquartile range, therefore there are no data outliers of this service quality dimension.

Market Driven

The following analysis shows a boxplot analysis of the four market driven questions:
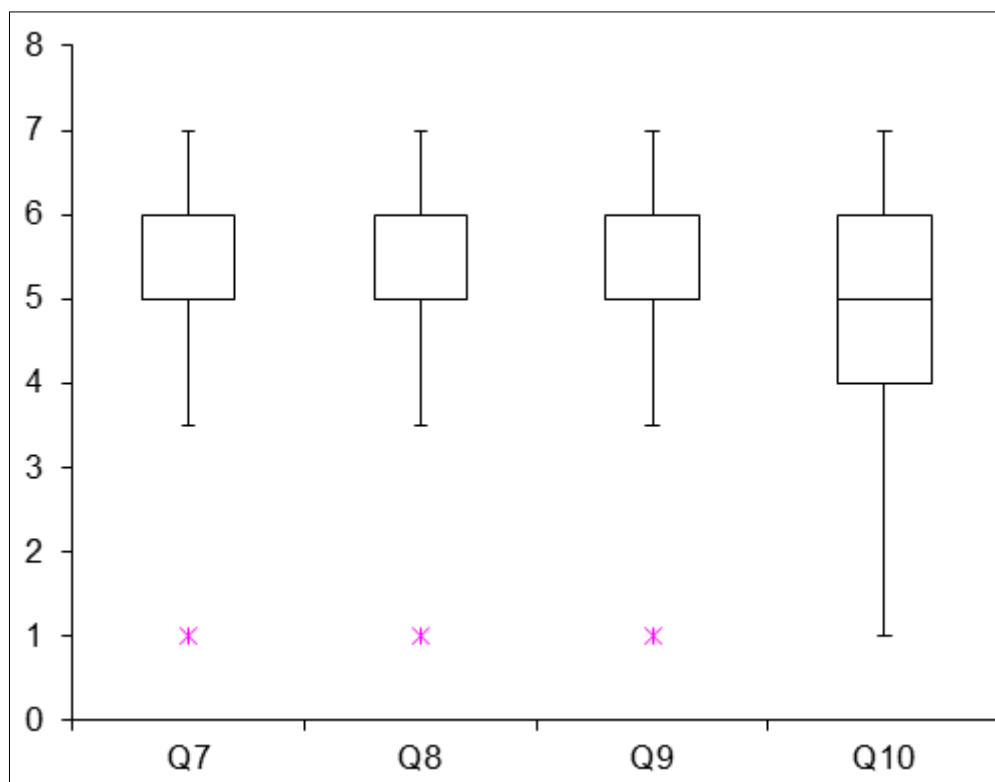
Diagram 29: boxplot and whiskers graph for market driven

Labels	Q7	Q8	Q9	Q10
Min	1	1	1	1
Q_1	5	5	5	4
Median	5	6	5	5
Q_3	6	6	6	6
Max	7	7	7	7
IQR	1	1	1	2
Upper Outliers	0	0	0	0
Lower Outliers	549	597	594	0

Table 32: boxplot and whiskers data table for market driven

As shown in the boxplot above, the four market driven questions drew varying measures with the lower quartile moving towards the median for Questions 7, 8 and 9, indicating that half of the values within the interquartile range are close to one another and the larger half of the values are scattered and distant from the others, and shows signs of negative skewness. Further, the whiskers for these questions seem generally similar in length, meaning that there is a tendency towards concentration of data to median score and above. Further analysis of the lower outlier scores shows that as a result of negative skewness as shown in the table below, the scores gathered for 'strongly disagree', 'disagree' and 'disagree somewhat' have been included as a part of lower outliers.

Question	Strongly disagree	Disagree	Disagree Somewhat	Total
7	17	146	386	549
8	19	117	461	597
9	19	142	433	594

Table 33: outlier analysis of boxplot and whiskers data table for market driven

This negative skewness can also explain the higher mean scores obtained for this dimension. After carefully looking into the statements as well as the scores, the researcher concluded that the scores for the lower outlier generated as a result of more participants agreeing with the statements than average and therefore there is no need to exclude these responses from the analysis. As questions 7, 8 and 9 refers to tuition fees, study advice and payments, which are considered more sensitive areas for students, the likelihood of agreement (or disagreement) is more likely, whereas question 10 refers to extra support provided by their respective private colleges.

More specifically, the outliers of the findings above are in line with (Dawson, 2011), where she identified that at least 30% of samples from a normally distributed population of any size will be flagged as containing an outlier, while for small samples (N<10) even extreme outliers indicate little to reflect the distribution spread of the sample. Dawson (2011, pp: 3), further stated that *'For a large sample from a normally distributed population the quartiles should be close to $\mu \pm 0.67\sigma$. Thus, the inner fences should be close to $\mu \pm 2.67\sigma$ and the outer fences close to $\mu \pm 4.67\sigma$, respectively'*. Therefore accordingly, the outliers identified by the boxplots above, can be included within the whiskers as the sample of (n = 12775) can be considered as a large sample. Accordingly the data highlighted as part of lower and upper outliers, can be included as part of the sample for analysis purposes.

The following analysis shows a box-plot analysis of the four Assurance questions:
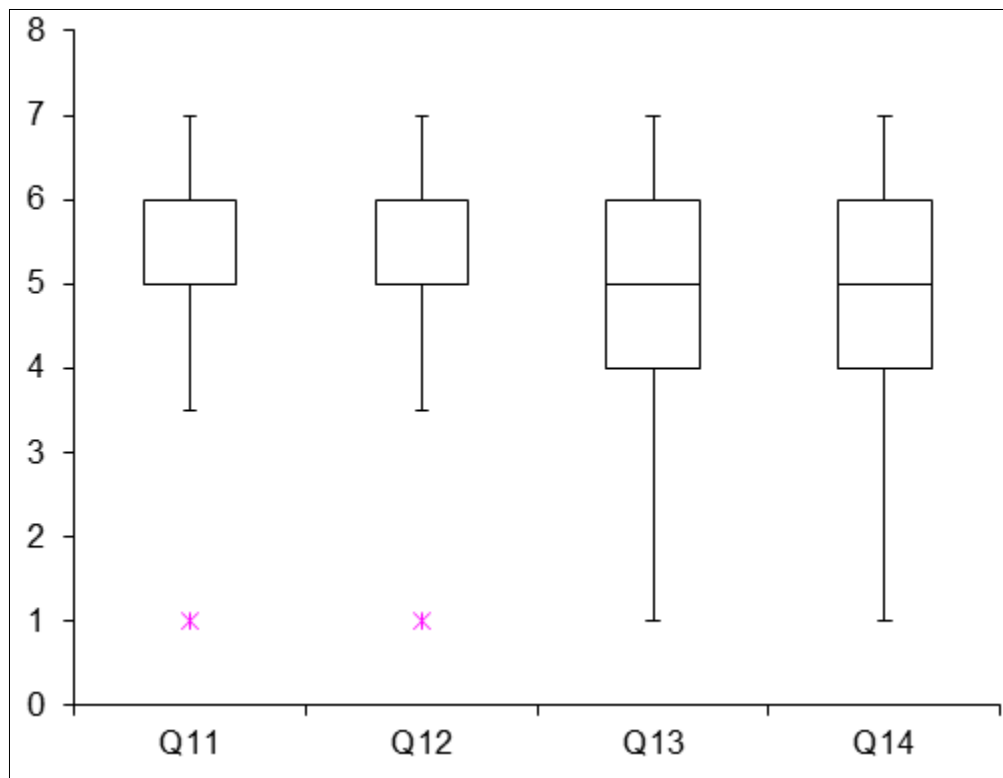
Diagram 30: boxplot and whiskers graph for market assurance

Labels	Q11	Q12	Q13	Q14
Min	1	1	1	1
Q_1	5	5	4	4
Median	5	5	5	5
Q_3	6	6	6	6
Max	7	7	7	7
IQR	1	1	2	2
Upper Outliers	0	0	0	0
Lower Outliers	476	516	0	0

Table 34: boxplot and whiskers data table for market driven

As shown in the boxplot above, the four assurance questions drew varying measures with the lower quartile moving towards the median for Questions 11 and 12, indicating that half of the values within the interquartile range are close to one another and that the larger half of the values are scattered and distant from the others, showing signs of negative skewness. Further the whiskers for these questions seem generally similar in length, meaning that there is tendency towards concentration of data to median score and above. Further analysis of the lower outlier scores shows

that as a result of negative skewness, as shown in the table below, the scores gathered for 'strongly disagree', 'disagree' and 'disagree somewhat' have been included as part of lower outliers.

Question	Strongly disagree	Disagree	Disagree Somewhat	Total
11	13	117	346	476
12	12	118	386	516

Table 35: outlier analysis of boxplot and whiskers data table for assurance

After carefully looking into the statements as well as the scores, the researcher concluded that the scores for the lower outlier generated as a result of more participants agreeing with the statements than average and therefore there is no need to exclude these responses from the analysis, as they fall within $\mu \pm 4.67\sigma$ (Dawson, 2011). As the questions 11 and 12 refer to recognition of the qualification and exam successes, which are considered more sensitive areas for students, therefore the likelihood of agreement (or disagreement) is more likely, whereas questions 13 and 14 refer to further study options and the overall recognition of the private college.

Customer Focus

The following analysis shows a boxplot analysis of the five customer focus questions:
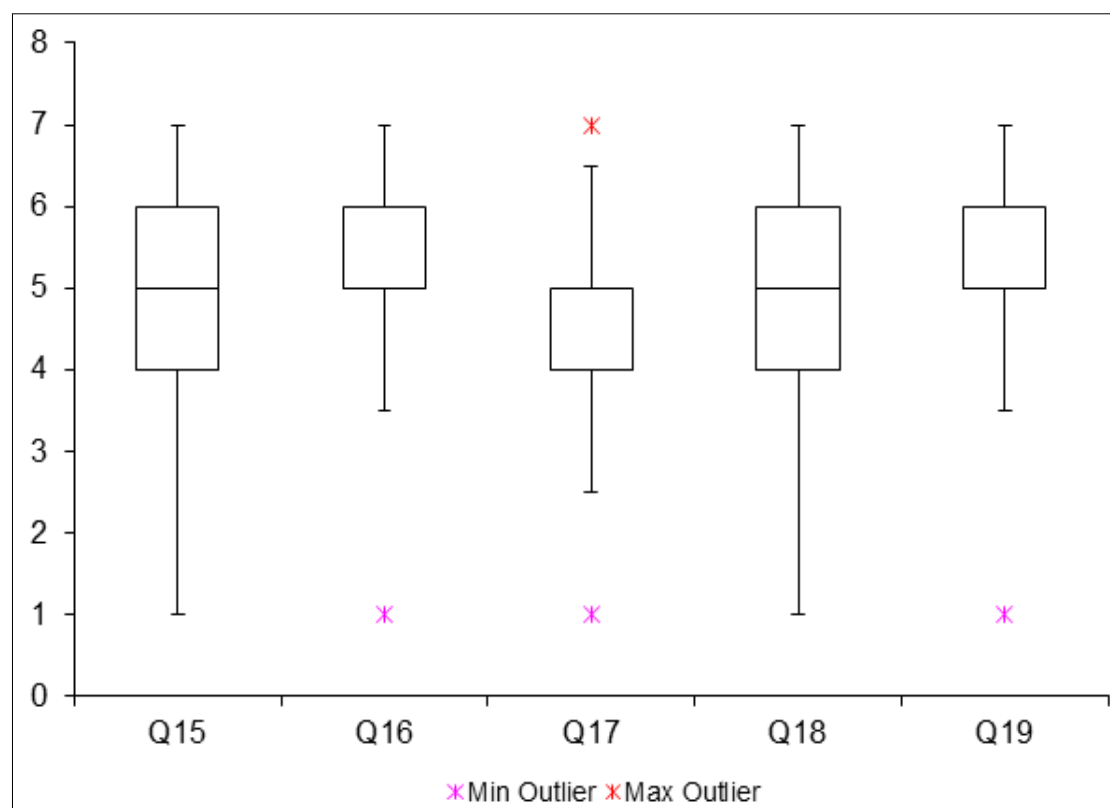
Diagram 31: boxplot and whiskers graph for customer focus

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Labels	Q15	Q16	Q17	Q18	Q19
Min	1	1	1	1	1
Q_1	4	5	4	4	5
Median	5	5	5	5	5
Q_3	6	6	5	6	6
Max	7	7	7	7	7
IQR	2	1	1	2	1
Upper Outliers	0	0	717	0	0
Lower Outliers	0	535	163	0	563

Table 36: boxplot and whiskers data table for customer focus

As shown in the boxplot above, the five customer focus questions drew varying measures with the lower quartile moving towards the median for questions 16 and 19, and the upper quartile moving downwards in question 17, indicating for these questions half of the values within the interquartile range are close to one another and that the larger half of the values are scattered and distant from the others, shows signs of positive (and negative) skewness. Further, the whiskers for these questions seem generally similar in length, meaning that there is a tendency towards concentration of data to median score and above. Further analysis of the lower outlier scores shows that as a result of negative skewness, as shown in the table below, the scores gathered for 'strongly disagree', 'disagree' and 'disagree somewhat' have been included as part of lower outliers.

Question	Strongly disagree	Disagree	Disagree Somewhat	Total
16	24	137	374	535
19	14	147	402	563

Table 37: outlier analysis of boxplot and whiskers data table for customer focus

The areas covered in questions 16 and 19 include individual attention and registration support, which can be considered as questions of individual sensitivity. On the other hand, question 17, which refers to online study access, drew a smaller interquartile range, meaning that students tend to be neutral on this area, which is below the median score of five, due to the subjectivity of the statement. The 717 responses in the upper outlier refer to 'strongly agree' and 163 figure for lower outlier shows the cumulative figure of 'strongly disagree' (18) and 'disagree' (145). In line with (Dawson, 2011), these lower and upper outlier responses continued to be included in the analysis, as they fall within $\mu \pm 4.67\sigma$.

The boxplot analysis of four questions, which includes two statements for question 23, is as follows:
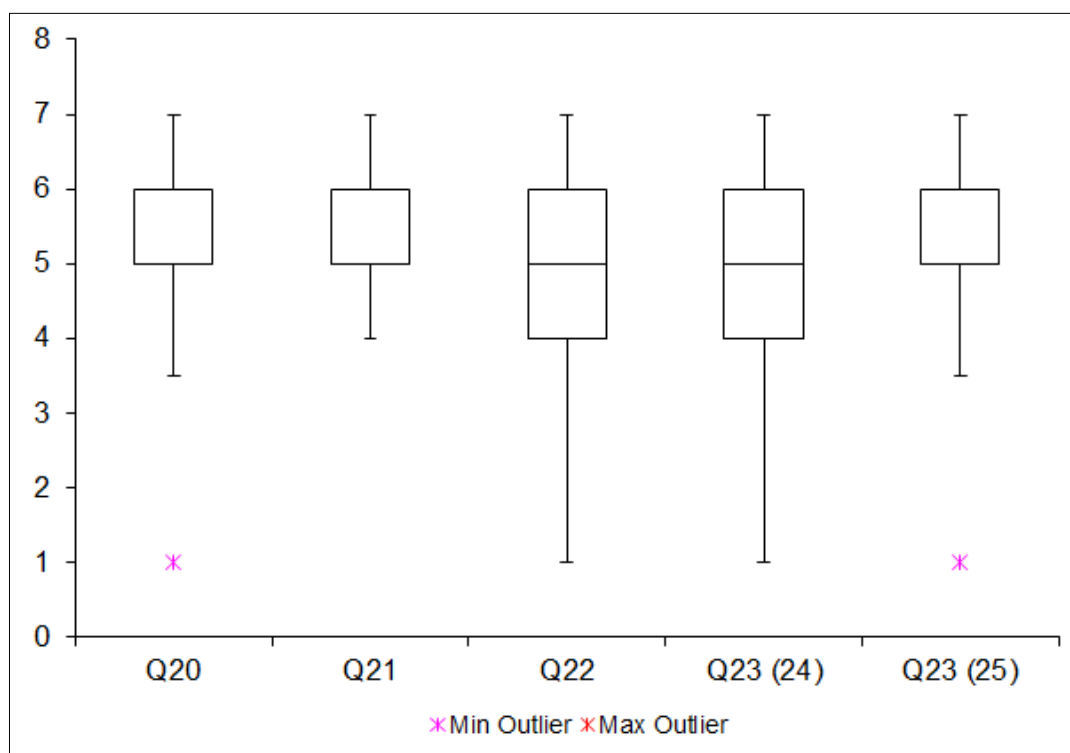
Diagram 32: boxplot and whiskers graph for focus practitioners

Labels	Q20	Q21	Q22	Q23 (24)	Q23 (25)
Min	1	4	1	1	1
Q_1	5	5	4	4	5
Median	5	5	5	5	5
Q_3	6	6	6	6	6
Max	7	7	7	7	7
IQR	1	1	2	2	1
Upper Outliers	0	0	0	0	0
Lower Outliers	448	0	0	0	324

Table 38: boxplot and whiskers data table for focus practitioners

As shown in the boxplot above, the five focus practitioners questions drew varying measures with the lower quartile moving towards the median for questions 20, 21 and 23 (25), with question 21 showing a spread of data concentrated around the median score. Further, the whiskers for these questions 20 and 23 (25) seem generally similar in length, meaning that there is a tendency towards concentration of data to median score and above, whereas question 21 drew whiskers of exactly the same length indicating a more symmetrical spread of data in upper and lower quartiles. Further

analysis of the lower outlier scores shows that as a result of negative skewness, as shown in the table below, the scores gathered for 'strongly disagree', 'disagree' and 'disagree somewhat' have been included as a part of lower outliers.

Question	Strongly disagree	Disagree	Disagree Somewhat	Total
20	11	120	317	448
23 (25)	30	97	197	324

Table 39: outlier analysis of boxplot and whiskers data table for focus practitioners

The areas covered in questions 20 and 23 (25) include, application of practical aspects in the classroom by lecturers and support given for funding applications, which can be considered as questions of individual sensitivity. On the other hand, question 21, which refers to research interests, drew a smaller interquartile range, meaning that students tend to be neutral on this area, which is below the median score of five, due to the subjectivity of the statement. Therefore, in line with (Dawson, 2011), these lower and upper outlier responses continued to be included in the analysis, as they fall within $\mu \pm 4.67\sigma$.

Service Quality Dimensions

The following boxplot analysis shows all five dimensions:
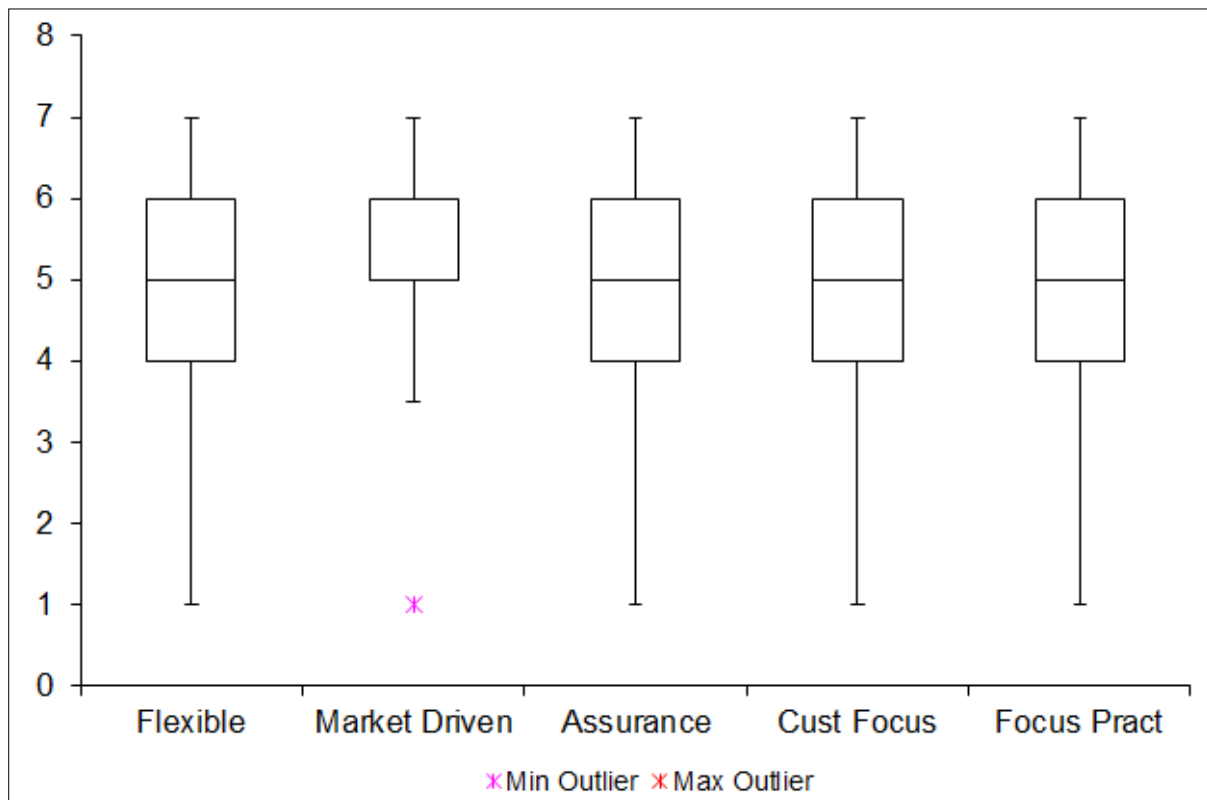
Diagram 33: boxplot and whiskers graph for service quality dimensions

Labels	Flexible	Market Driven	Assurance	Cust Focus	Focus Pract
Min	1	1	1	1	1
Q_1	4	5	4	4	4
Median	5	5	5	5	5
Q_3	6	6	6	6	6
Max	7	7	7	7	7
IQR	2	1	2	2	2
Upper Outliers	0	0	0	0	0
Lower Outliers	0	2400	0	0	0

Table 40: boxplot and whiskers data table for service quality dimensions

The diagram above shows a consistent spread of data across four dimensions, whereas market driven indicates negative skewed data, as a result of many participants choosing scores higher than the mean score. The number of lower outlier responses refers to 'strongly disagree', 'disagree' and 'disagree somewhat' responses. In line with (Dawson, 2011), these lower outlier responses continued to be included in the analysis, as they fall within $\mu \pm 4.67\sigma$.

Overall, all dimensions showed signs of negative skew, as a result of longer lower whiskers, meaning that overall participants chose to agree with the statements and gave scores closer or above median figures. It is worth noticing that the mean and trimmed mean figures for all five dimensions are higher than the median score of the data group.

As The above findings are comparable with the findings of Brochado and Marques (2007: p 11), where they measure spread of data across three service quality dimensions by analysing the five most commonly used models; HEdPERF - Higher education performance (Abdullah,2006a), SERVQUAL - Service quality (Parasuraman et al., 1985), SERVPERF - Service performance (Cronin and Taylor, 1992), Weighted SERVPERF - Weighted service performance (Cronin and Taylor, 1992) and Weighted SERVQUAL - Weighted service quality (Parasuraman et al., 1991). Brochado and Marques (2007) further assessed the validity of the five scales by examining whether the average scores of each scale were associated empirically with measures of conceptually related variables. The criterion variables used to compare the five scales are: the overall satisfaction, the intention of future visits and the intention to recommend the university to a friend. The respective boxplot analysis, where data obtained through a seven point Likert scale, of these three dimensions is as follows:
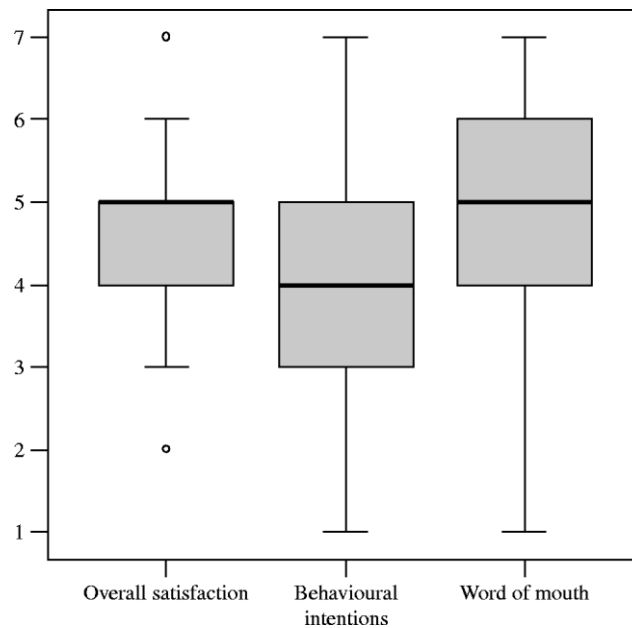
Diagram 34: boxplot and whiskers graph done by Brochado and Marques (2007: p 11)

The boxplot of this research and the research by Brochado and Marques (2007) can be compared by looking at the distribution of the interquartile range as well as the existence of data within lower and upper outliers. More specifically, the similarities of the interquartile ranges as well as the length of whiskers of the two studies are similar to each other, meaning the comparability of spread of data of studies.

The analysis above leads to the final stage of descriptive statistical analysis, which is to understand the shape and the distribution of data.

8.7 Measure of shape – skewness and kurtosis

Laerd (2014), states that the measure of a shape of distribution, whether the data is normally distributed, can be calculated using the z values of skewness and kurtosis figures. Skewness measures the degree of symmetry of a probability distribution. For example, if skewness is less than zero, the distribution is skewed to the left therefore negatively skewed, and having more observations on the right and vice versa. If the skewness is zero it is a considered a symmetrical distribution, whereas, kurtosis gives an indication of the peak of the distribution, for example how tall and sharp the peak, therefore the indication of the distribution of data around the centre of the data (Brown, 2011). Further, a distribution with positive excess kurtosis is called a leptokurtic (excess kurtosis > 0) distribution which is a narrower peak around the mean and has fatter tails, while a distribution with a negative excess kurtosis is called a playkurtic (excess kurtosis < 0) distribution which is a wider peak around the mean and has thinner tails. A normal distribution with zero kutosis or close to zero is called mesokurtic (Laerd, 2014). Further, in addition to comparing skewness and kurtosis figures, the z scores of each can also be considered for a more accurate view of the distribution. Z scores are generated by dividing the respective skewness or kurtosis figure by the standard error (ibid).

The table below shows the respective skewness, kurtosis values and their respective z scores.

Service Quality Dimension	Question Number	Skewness (Z score)	Kurtosis (Z score)
Flexible	Q2	- 0.7729	1.1567
	Q3	- 0.4012	0.0836
	Q4	- 0.4084	0.2683
	Q5	- 0.3081	- 0.2532
	Q6	- 0.2097	0.0659
Market Driven	Q7	- 0.3514	0.5671
	Q8	- 0.4019	0.2197
	Q9	- 0.1555	- 0.3578
	Q10	- 0.5305	- 0.4456
Assurance	Q11	- 0.1356	0.1172
	Q12	- 0.0912	0.1903
	Q13	- 0.0512	0.3388
	Q14	- 0.0870	0.5221
Customer Focus	Q15	- 0.6006	- 0.4907
	Q16	- 0.4180	- 0.6100
	Q17	- 0.2488	- 0.0137
	Q18	- 0.7081	1.0688
	Q19	- 0.2264	0.5217
Focus Practitioners	Q20	- 0.1713	0.0088
	Q21	- 0.0922	0.4034
	Q22	- 0.3567	- 0.8606
	Q23 (Q24)	- 0.3550	- 0.1414
	Q23 (Q25)	- 1.1887	- 0.1559

Table 41: skewness and kurtosis scores of individual questions

As shown in the table above, the skewness scores of all statements gave a negative value, with all statements apart from Q23 (25) giving scores near zero. This shows that all statements are negatively skewed. However, the kurtosis values of the peak of the distribution gave both negative and positive scores meaning distributions of each dimension vary from the centre point. The table below shows the overall skewness and kurtosis figures for the five service quality dimensions.

Service Quality Dimension	Skewness (Z score)	Kurtosis (Z score)
Flexible	-0.3945	0.3601
Market Driven	-0.3238	- 0.1504
Assurance	-0.0579	0.0859
Customer Focus	-0.6239	0.4771
Focus Practitioners	-0.4127	0.5049

Table 42: skewness and kurtosis scores for service quality dimensions

Once again, the negative skewness scores indicate a negative skew of the distribution, and the kurtosis scores are positive for four dimensions, meaning concentration of scores towards the mean and for market driven a negative kurtosis score implies a more varied distribution.

Previous studies conducted by Yu (2008), in the application of the SERVQUAL model, found the following Z scores for skewness and kurtosis; tangibles (S -1.75; K -1.03), reliability (S-.5.22; K1.45), responsiveness (S-6.0; K2.73), Assurance (S-4.99; K1.04) and empathy (S-5.39; K0.89). The findings of this study, in comparison, are more consistent with a normal distribution.

However, according to Sheskin (2004) the data can be considered normally distributed in a variety of ways. For example, a researcher may assume that the data is normally distributed if the skewness and kurtosis have values between -1.0 and +1.0. The z scores obtained for the five dimensions are indeed within this range and therefore, as per Sheskin (2004) the data can be considered as normally distributed.

In agreement with Sheskin (2004), Bulmer (1979) described that, if skewness is less than −1 or greater than +1, the distribution can be considered as highly skewed, therefore statistical inferences associated with normal distribution may not be applied to such data. If skewness is between −1 and −½ or between +½ and +1, the distribution can be considered as moderately skewed, therefore statistical inferences of normal distribution can be applied on the judgment of the researcher. However, if skewness is between −½ and +½, the distribution is approximately symmetric and can be considered as normally distributed. Apart from the Customer Focus dimension, all other dimensions fit with the latter, and therefore based on the skewness figures, the data collected can be considered normally distributed.

However, most importantly, all Z scores fall within ±2.58, meaning that with a statistical significance level of .01, the population distribution can be considered as normally distributed (Laerd, 2014).

However, as the numbers of responses are greater than 2000, Kolmogorov-Smirnov test is adopted instead of the Shapiro-Wilk test. The respective scores are shown below for confidence level at 95%. As the Sig. value is considered 0.001 and hence greater than the p value of 0.05, the null hypothesis is rejected, therefore according to Lilliefore's significance correlation, the test is considered as not-normally distributed (Lilliefore, 1967).

Tests of Normality

	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
Flexible	.201	42663	.000
Market Dr	.165	42663	.000
Assurance	.227	42663	.000
Cus Focus	.200	42663	.000
Focus Pract	.182	42663	.000

a. Lilliefors Significance Correction

Table 43: Lilliefors significance correlation

Finally, according to Sheskin (2004), a good assessment of normality is the analysis of Quantile-Quantile (Q-Q plots), an effective means of visually understanding the normality. Further the closer the dots are to the line, i.e., y=x, indicates that the data is normally distributed. The respective Q-Q plot diagrams of the five dimensions are as follows:
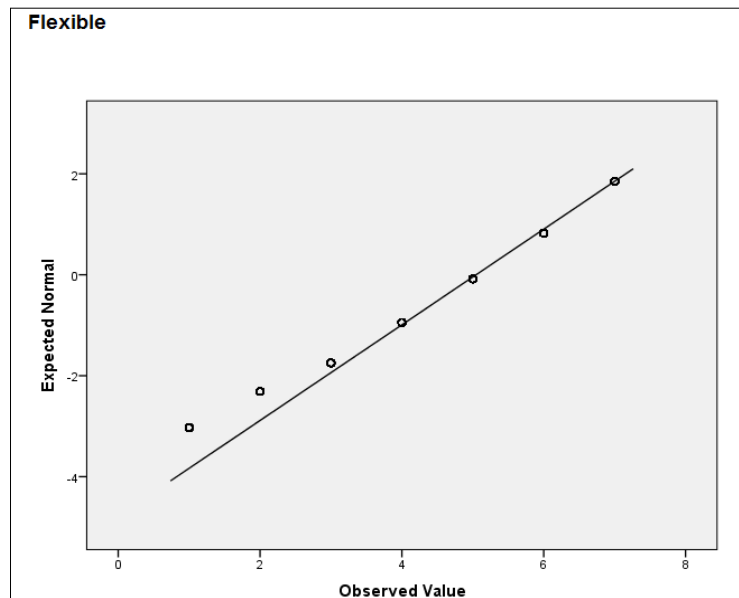
Diagram 35: Q-Q plot analysis for flexible
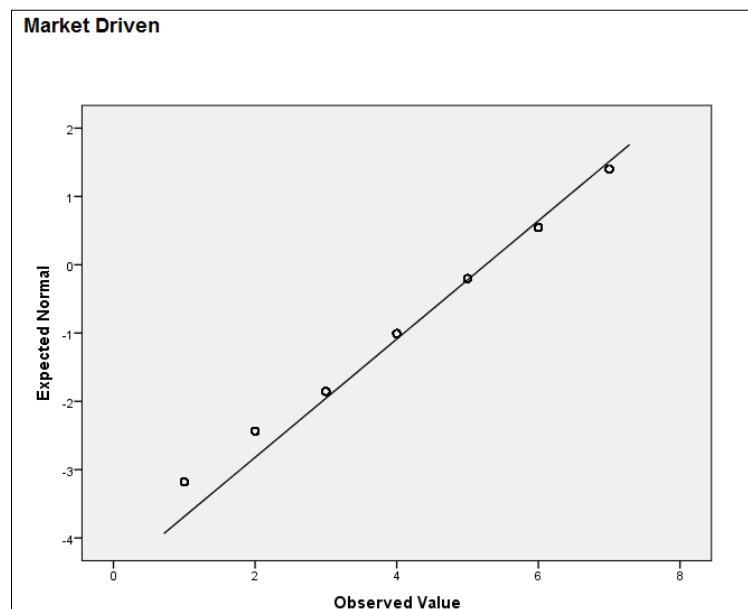
Diagram 36: Q-Q plot analysis for market driven
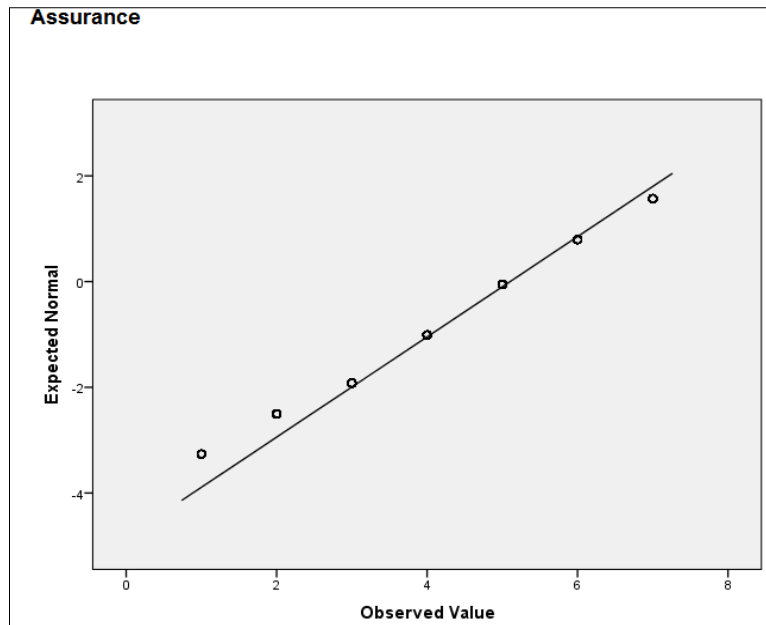
Diagram 37: Q-Q plot analysis for assurance
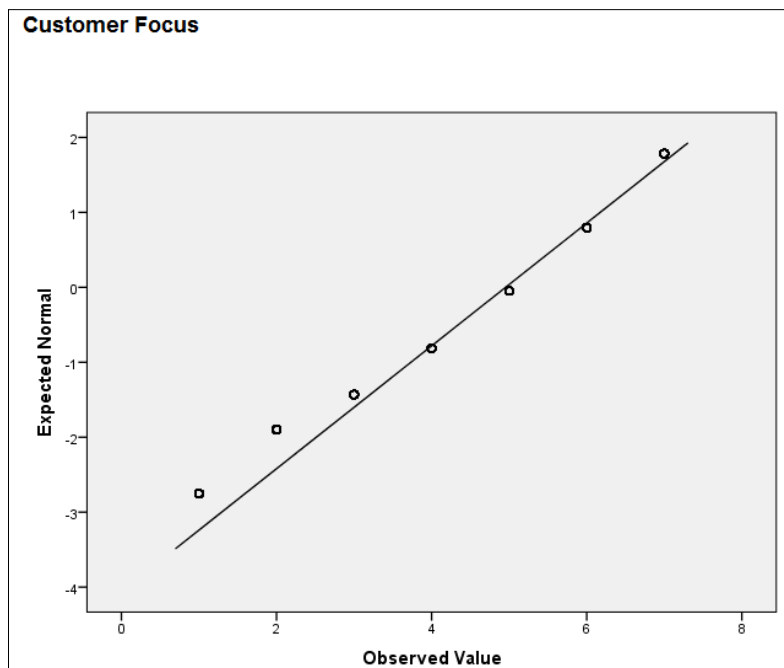
Diagram 38: Q-Q plot analysis for customer focus
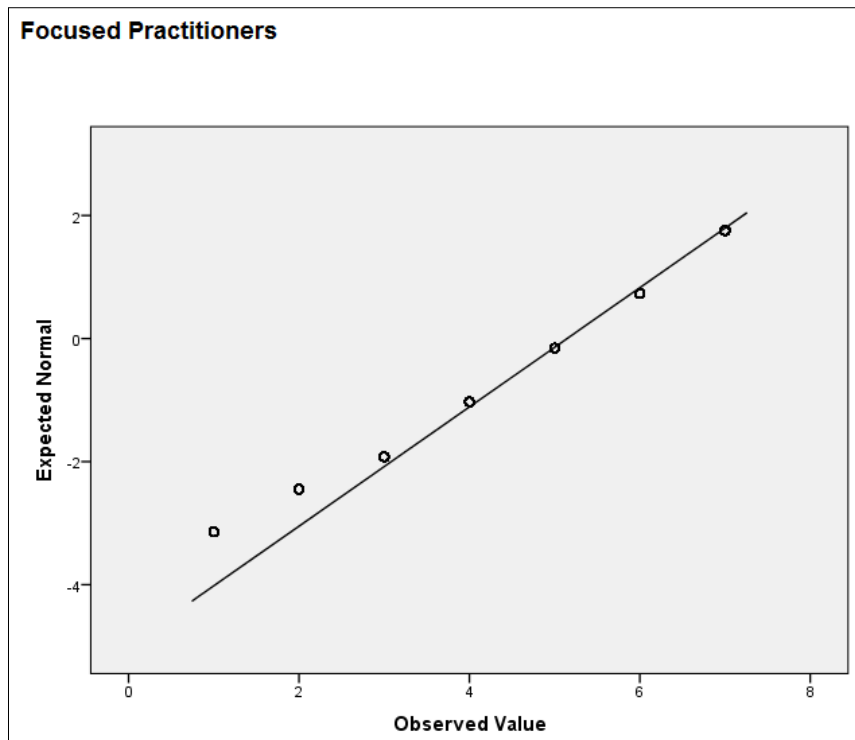
Diagram 39: Q-Q plot analysis for focus practitioners

The Q-Q plots above shows that the points are near to the line, however the points towards the left side are slightly above the line. This indicates the data is slight skewed to the right, which is an indication of the above average median and mean figures.

However, in conclusion and in agreement with Sheskin (2004), Bulmer (1979), the data distribution can be considered normal, as a) skewness and kurtosis are within the – 1.0 and + 1.0 range b) all Z scores fall within ±2.58 with a statistical significance level of .01 c) the Q-Q plot analysis confirmed the dots are close to the normal distribution line.

As this research has now established that the data collected are normally distributed, the next section of this chapter will continue to look at further descriptive statistics involving aspects of reliability, validity and responsiveness of the measurement instrument.

8.8 Reliability, validity and responsiveness

Reliability, validity and responsiveness are key indicators of the overall quality of a measuring instrument (Kimberlin and Winterstein, 2008). In addition to reliability and validity of the instrument, a good measuring instrument must also be responsive to changes of the subject measures, therefore any changes of the behaviours and underlying assumptions are likely to detect, and respective changes are made to support continuous improvement of the instrument (ibid).

As discussed in the previous chapters, measuring instruments can collect data from a variety of input mechanisms, including and not limited to, interviews, observations and questionnaires, with all options either administered by a trained administrator or via the participants themselves i.e., self-

report. Many instruments are designed as self-report instruments, meaning that participants are expected to complete the data by themselves using guidance provided by the researcher (Litwin, 1995). Self-report instruments, such as the online questionnaire used in this research, are subject to participants own judgments as well as perceptions, therefore researchers' must use all possible mechanisms to minimise bias errors, such as recall bias and misclassification bias (Kimberlin and Winterstein, 2008).

In this particular research the researcher took precautionary action throughout the study, more specifically at the student focus group, expert panel discussions, pilot studies as well as proofreading stages to eliminate such measurement errors, which are explained below:

8.9 Measurements using self-report and measurement error

Kimberlin and Winterstein, (2008) described that for many measurements researchers rely of the self-report of participants, as for many studies independently administrated measurement is costly and time consuming, with significant barriers involved when increased sample sizes are used. However, self-report survey instruments are prone to known biases, such as participants' may provide responses that are socially acceptable or in line with the impression that they would like to create, instead of providing an accurate picture of their true thinking and views. In addition, self-report questions may force an estimation of behavioural frequency rather than true recall as required by the researcher.

Issues on the use of estimation rather than true recall must be taken into account by the researcher when developing the survey instrument, by understanding what specifics participants are likely to recall from memory and how frequency response scales are formulated amongst other specific aspects of the measuring instrument. Further, when a list of alternative responses is provided the response options themselves may determine the way participants interpret the question and their respective response (ibid).

Further, the use of self-report of poorly designed measures can result in misclassification bias, meaning participants' erroneously provide inaccurate feedback. In order to minimise such bias, the study had taken the following measures:

- Several focus group discussions as well as individual discussions took place with students to ensure that the service quality dimensions as well as their respective measures are identified as accurately as possible;

- Expert panel members then commented on these dimensions and re-validated the responses obtained from the focus group of students, with an aim of reducing measurement error;

- Pilot study and proofreaders were employed to ensure that the mis-classification bias and measurement error, with changes including the development of a seven point Likert type scale, with further information provided to support recall, and therefore reducing recall bias;

- Only those who studied at a private college during four years preceding to the study were invited to participate, as any longer period than four years – as per the feedback obtained from the focus group indicated – may result in increased recall bias.

According to Letwin (1995), any score obtained by a measuring instrument is composed of both the true score, which is unknown, and the error in the measurement process. There are two types of measurement errors, known as random and systematic. Random error is caused by any factors that randomly affect measurement of the variable across the sample, and in this study sources of random error include aspects such as recent bad publicity of private colleges in the UK, internet connection problems and personal issues of participants, such as workload and stress. On the other hand, systematic error is caused by any factors that systematically affect measurement of the variable across the sample. For this study, these systematic aspects include participants' perceptions, beliefs, and undue influence by their colleagues. Random errors usually add to the variability of the results whereas systematic errors can add to biased measures (Trochim, 2000). The true score is essentially the score a researcher would have received if the measurement is perfectly accurate. Therefore, the development process of the measurement instrument is focused on reducing this overall measurement error. It is the responsibility of the researcher to identify the sources of possible measurement errors and take action to minimise the impacts of such errors.

Kimerlin and Winderstein (2008), highlighted that pre-testing or pilot testing an instrument allows the researcher to identify sources of measurement errors. The refinement of the instrument, as a result of feedback received from pilot or pre-test studies will results in reducing measurement errors. Therefore, in addition to the actions above, several small-scale pilot groups were conducted – as explained under reliability below – to revalidate the changes made from the main pilot group.

Further the underlying principles adopted by well-established instruments, such as SERVQUAL (Parasuraman et al., 1985), SERVPERF (Cronin and Taylor, 1992) and HEdPERF (Abduallah, 2006a) have been taken into account when developing the measuring instrument to ensure the online survey instrument factors i.e., service quality dimensions, measures i.e., statements of quality are all constructed using these established concepts.

Overall, all the actions above were aimed to reduce the measurement error of the survey instrument and its underlying constructs.

8.10 Reliability

Reliability is the extent to which a questionnaire, test, observation or any measurement procedure or instrument, produces the same results on repeated usage and trials. In short, reliability can be explained as the stability and consistency of scores over time across different samples of groups. The aspects of reliability refer to the measurement instrument and not to the participants; therefore the reliability measures are intended to assess the repeatability of the outcomes as applicable to the measurement instrument (Kimberlin and Winterstein, 2008). According to Letwin (1995) there are three aspects of reliability as; equivalence, stability and internal consistency, that can be broken into external reliability and internal reliability.

External reliability measured the extent to which measures vary from one user to the other. Equivalence tests and the stability tests are considered external reliability measures. On the other hand, internal reliability focus on the extent to which a measure is consistent within itself. Measures of internal consistency as well as split-half methods are commonly used to measure internal consistency (ibid).

Equivalence refers to the amount of agreement between two of more instruments that are administered at nearly the same point of time. This aspect is also referred as alternate-form reliability or inter-rater reliability (Inter-observer reliability) when the survey measurement instrument is completed by a rater or an administrator. As this study used a self-report measurement instrument, the equivalence is measured through parallel/alternate-forms procedures, as opposed to inter-rater or inter-observer reliability, where different forms of the same construct are given to either same group or different group of respondents. According to Carmines and Zeller (1979), alternate-form reliability can be measured by using differently worded forms, therefore producing two measurement instruments that are similar but not identical.

However, accordingly to Letwin (1995), in practice the parallel forms procedure is rarely used, due to its difficulty in developing two measurement instruments that have similar constructs as well having equal means, variances and correlations. Therefore, it is common to simply change the order of the questions of the measurement instrument and test it with the same groups of participants, as this reduces that practice effect.

Due to time and resource constraints, the researcher followed Letwin's (1995) suggestion above, thereby changing the order of questions and requesting four participants of the pilot group to attempt the two surveys. The two surveys were given one week apart of each other, without informing the participants that the order of questions had changed. No rewording of questions have been carried out. The descriptive statistics obtained during this process are as follows:

Service Quality Dimension	Original Questionnaire			Amended Questionnaire		
	Mean	Standard Deviation	Variance	Mean	Standard Deviation	Variance
Flexible	5.2000	0.7677	0.5894	5.3000	0.7326	0.5368
Market Driven	4.8125	0.8341	0.6958	4.9375	0.8539	0.7291
Assurance	5.0000	0.7947	0.6315	4.9500	0.6863	0.4710
Customer Focus	4.8750	0.7187	0.5166	4.8125	0.5439	0.2958
Focus Practitioners	5.0625	0.9287	0.8625	5.1875	0.7500	0.5625

Table 44: equivalency assessment with the original questionnaire and amended questionnaire

As mentioned in the table above the mean figures of the original questionnaire and the amended questionnaire, where the researcher changed the order of the questions, are comparable and close to each other. The standard deviation figures and variance figures are expected to vary, as the number of participants was limited to four. However the correlation coefficient (r value) for the two sets of questions was, 0.7699, meaning a closer correlation between the two questionnaires, which shows the equivalency of the measurement instrument.

8.10.2 Stability

The second aspect of reliability is the concept of stability, or also known as test-retest reliability. The stability described as the ability of the measurement instrument to produce the same or similar results with repeated testing with the same group of participants. In other words, the scores of these different tests must show consistency (Letwin, 1995). The stability is assessed via the test-retest procedure, where the same measurement instrument is given to the same group of participants, usually under the same conditions, but after a period of time. It is however important to ensure that the assumptions do not change during this period of test-retest, to ensure that the changing of assumptions does not interfere with the process (Carmines and Zeller, 1979).

According to Letwin (1995) the output of the first and second attempts are measures via correlation coefficient (r value), and r values greater than 0.70 are considered good.

During this study, the researcher requested four participants that did not take part in any way during the development process of the instrument to take the full online survey on 20th May 2013 as well as 29th May 2013. Participants were sent special online links to complete the surveys on these two specific days.

Service Quality Dimension	Correlation Coefficient (r value) *Group 1 = 20th May 2013* *Group 2 = 29th May 2013*
Flexible	0.8233
Market driven	0.8247
Assurance	0.7303
Customer Focus	0.7886
Focus Practitioners	0.7477

Table 45: stability assessment with correlation coefficient (r values)

From the table above, all correlation coefficient r values are greater than 0.70, meaning a good correlation between the two groups. However, according to Letwin (1995), test-retest reliability estimates usually receive higher correlation figures, as a result of the practice effect. In the particular instance, even though the gap of nine days has been observed between the two groups, it is difficult to completely ignore the effects of practice.

8.10.3 Internal consistency

Internal consistency refers to the extent to which items on the instrument measure the same aspects or constructs. For example, if items have a high level of correlation between each other, the researcher can be confident in the reliability of the entire measurement instrument (Kimberlin and Winterstein, 2008).

According to Kimberlin and Winterstein, (2008), internal consistency is normally estimated via split-half reliability index, coefficient alpha index, Kuder-Richardson formula 20 or KR-20 and average Inter-item correlation as well as average item-total correlation.

The split-half method involves giving two parallel halves and administering two alternate forms of a test simultaneously. One way on achieving this is to give two forms, with one half representing odd numbered questions and the other half even numbered ones. The aim is to compare the consistency of the measures in two halves. Even though the split-half method is a quick and easy way to establish internal reliability, it can only be effective with large questionnaires in which all questions measure the same construct. Therefore, it would not be appropriate for tests which measure different constructs, similar to the one used in this particular study (Carmines and Zeller, 1979).

On the other hand, KR-20 and correlation coefficient Alpha refers both to the average of all possible split-half estimates. According to Kimberlin and Winterstein, (2008),coefficient alpha is usually used during scale development with items that have several response options, such as Likert type scales, whereas KR-20 is applied for more dichotomous response scales, where the measurement instrument requires participants to provide a definitive yes or no answer.

This survey employed a seven point Likert type scale as well as being in line with previous studies conducted by Parasuraman et al., (1985), Cronin and Taylor (1992), Abdullah (2006a) as well as Teas (1993b), Cronbach's coefficient alpha has been used as the measure on internal consistency.

According to Trochim (2000), Cronbach's alpha is a function of the number of test items and the average inter-correlation amongst the items. Therefore a good starting point in assessing Cronbach's alpha is to first analyse the average inter-item correlation and average item-total correlation. Even though Cronbach's alpha is a good indication of the internal consistency, the correlation of the item can further confirm the Cronbach's alpha results, and usually an above average correlation result, such as 0.7 and above, is a good indication of internal consistency between dimensions. The respective inter-item correlation figures of the five service quality dimensions are as follows:

	Flexibility	Market Driven	Assurance	Customer Focus	Focused Practitioners
Flexibility	1				
Market Driven	0.844	1			
Assurance	0.684	0.705	1		
Customer Focus	0.770	0.826	0.819	1	
Focused Practitioners	0.620	0.679	0.851	0.807	1

Table 46: inter-item correlation figures of the five service quality dimensions

According to Trochim (2000), the average inter-item correlation is simply the average of all individual correlations, whereas the average item-total correlation uses the score of inter-item correlation as an extra item before calculating the average. The average inter-item correlation as well as the average item-total correlation of this research stands at 0.7605. A figure of above 0.7 indicates a good correlation between variables and an indication that individual items correlate with each other well to reflect the underlying construct (Letwin, 1995). Further, inter-item correlation also assists researcher's to understand the relationship between two dimensions, for example, as seen from the table above, the correlation between Focus Practitioners and Flexible is 0.620, whereas the correlation between Market Driven and Flexible is 0.844, indicating a strong relationship between Market Driven and Flexible, when compared with Focus Practitioners and Flexible (Trochim, 2000).

According to DeVellis, (2003), Cronbach's Alpha helps to determine how much the items on a Likert scale are measuring the same dimension and commonly used when a researcher has multiple Likert questions in a survey that forms a scale, and wishes to determine if the scale is reliable. Further alpha value can be given to both raw variables and standardised variables. Alpha for raw variables is arrived at by simply adding all the variables while standardised alpha is the effect of z scoring all the variables to obtain an equal weight and then adding those. The Standardised Cronbach's alpha is also known as the 'Spearman-Brown stepped-up reliability coefficient'. However, according to Gliem and Gliem (2003) standardised alphas are usually considered only when the individual scale items are not scaled the same. Therefore, the raw Cronbach's Alpha figure is an appropriate indication of internal consistency for this particular research.

The table below shows the Cronbach's Alpha figure for the full survey instrument:

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.937	.941	5

Table 47: reliability statistics

According to Letwin (1995), the higher the Alpha figure is the better the indicator of the internal consistency of the scale. For example, many authors prefer to use the standardised alpha, as the values are standardised to a variance of 1, whereas the raw alpha value can inflate when the variances are significant.

Further, DeVellis, (2003) mentioned that even though Cronbach's Alpha enables a researcher to determine how well a set of questions are grouped together, it cannot determine whether the items consist of a single or multiple dimension. Therefore, it may be important to look at Cronbach's Alpha on each dimension. The respective alpha figures for each dimension are as follows:

Service Quality Dimension	Cronbach's Alpha
Flexible	0.931
Market Driven	0.942
Assurance	0.889
Customer Focus	0.921
Focus Practitioners	0.889

Table 48: Cronbach's alpha scores for five service quality dimensions

According to Gliem and Gliem (2003), even though there is no lower limit to the coefficient, the closer it is to 1.0 the greater the internal consistency of the items in the scale. Even though there is no specific number to show a greater consistency (Cronbach, 1951), George and Mallery (2003) suggested that an alpha figure of greater than 0.9 can be considered as excellent, while a figure less than 0.5 is unacceptable. Further George and Mallery (2003) described an alpha figure greater than 0.7 as acceptable, with figures near or above 0.8 as good. However, Gliem and Gliem (2003) stated that the increasing value of alpha is influenced by, and dependent upon, the number of items in the scale, and as described above, the high alpha value does not determine the scales unidimensionality. Further, in agreement with George and Mallery (2003), Gliem and Gliem (2003) also stated that an alpha value of 0.80 or over is considered a good indication of the internal consistency of the scale.

Further, Letwin (1995) suggested that the Cronbach's Alpha figure of studies can vary and therefore comparison of the respective alpha figures with similar studies can provide a researcher with a good indication of how the specific scale used in a particular study compares with previous similar studies. Therefore the figures obtained above can be compared with the previous key studies as follows:

This study		SERVQUAL (Parasuraman et al., 1985)		SERVPERF (Cronin and Taylor, 1992)	HEDPERF (Abduallah, 2006a)	
Service Quality Dimension	Cronbach's Alpha	SERVQUAL	Cronbach's Alpha	Cronbach's Alpha	HedPERF	Cronbach's Alpha
Flexible	0.931	Tangibles	0.758	0.782	Non-Academic Aspects	0.918
Market Driven	0.942	Reliability	0.807	0.819	Academic Aspects	0.858
Assurance	0.889	Responsiveness	0.718	0.719	Reputation	0.829

Customer Focus	0.921	Assurance	0.771	0.764	Access	0.882
Focus Practitioners	0.889	Empathy	0.827	0.804	Programme Issues	0.800

Table 49: Cronbach's alpha comparison

As seen from the table above, the alpha figures of this particular study are comparable and in par with the reliability coefficient figures obtained with previous studies. In particular, the Cronbach's Alpha figures obtained in this study are relatively higher than the scores obtained for SERVQUAL, SERVPERF as well as HEdPERF models.

The item total statistics details are as follows:

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Flexibility	18.470	13.916	.811	.737	.925
Market Driven	18.324	12.760	.852	.790	.919
Assurance	18.829	14.031	.835	.783	.921
Customer Focus	18.471	12.212	.901	.819	.910
Focused Practitioners	19.867	15.540	.809	.766	.931

Table 50: item total statistics

As indicated in the table above, the scale mean, variance as well as Cronbach's alpha, if an item is deleted is fairly consistent, meaning that the five dimensions have a good level of consistency, therefore there is no argument in favour of removing dimensions to enhance reliability of the scale as a whole.

Further, the 'Corrected Item-Total Correlation' is the Pearson correlation between the specific dimension and the sum of all other dimensions. According to Letwin (1995), Pearson correlation coefficients lower than 0.3 are cause for concern for researcher, as it indicates that this particular item might not be measuring the same construct, therefore may consider removing that particular item from the analysis. However as shown from the table above the Pearson correlation is above 0.8, meaning that all items measure the same construct.

Squared multiple correlation refers to the R-squared value, which is an indication of how well the regression line approximates the real data points. An R-squared of 1 indicates that the regression line perfectly fits the data and scores close to one indicates that we can explain the variations of over 70% of dimensions, which is a good indication of the overall fit between the five service quality dimensions (Gliem and Gliem, 2003).

Finally, probably the most important column is the Cronbach's Alpha if the item is deleted, and indicates that the overall alpha figure of 0.937 is indeed higher than if any individual item is deleted. This is a good indication of the internal consistency of individual dimensions as well as collective reliability of the scale (Letwin, 1995)

From the indicators obtained above, it can be concluded that the survey instrument used in this research is reliable and factors measured within the instrument have a good level of correlation. While reliability is important it is single handedly not sufficient to determine the overall accuracy of the research. Although research studies conducted are reliable it is important to ensure that they are also valid. As mentioned above, reliability and validity go hand in hand, a reliable measure do not necessarily mean the measurement instrument is valid (Trochim, 2000). Therefore, the next part of this chapter is aiming to analyse the validity of the measurement instrument.

8.11 Validity

Validity in simple terms refers to the extent to which the measurement instrument measures what it is supposed to measure. Validity can also be considered as an indication of the accuracy of the extent to which a research conclusion corresponds with reality. According to Kimberlin and Winterstein, (2008), validity requires that the measurement instrument be reliable, for example it is entirely possible that an instrument is deemed reliable without being valid. Fogarty et al., (2000) agreed with this argument and stated that an instrument can be considered reliable if it consistently works by giving the same results every single time when the same variables are re-measured, but the measurement instrument could still be consistently biased or wrong. Further, checks of reliability in simple terms detects the amount of random error associated with the measurement of the variable, and checking validity on the other hand can detect content error, which can lead to invalidity of the measurement (ibid).

The positivistic viewpoint of validity attempts to answer if the measurement instrument measures what it is supposed to measure, while the Interpretivistic viewpoint to validity refers to the researcher gaining full access to the knowledge and meaning of participants (Trochim, 2000). Further, according to Kimberlin and Winterstein, (2008) validity evidences are built over time, with validations of the construct occurring in a wide variety of samples and populations.

Assessment of validity of research consists of two main types; internal and external validity. Internal validity is described as the degree to which the results are attributable to the independent variable i.e., for this study the service quality dimensions. Whilst the external validity refers to the extent to which the findings of a study can be generalised. Both types of validity are vital in assessing the correctness, meaningfulness and the usefulness of the findings of a piece of research (Carmines and Zeller, 1980). For the purpose of this research, this section will be focusing on internal validity assessment, as external validity is beyond the scope of this study. Even though researchers refer to and link validity with the measurement instrument, the validity is not a property of the research instrument itself, as validity is considered as the extent to which the interpretation of the results of the research are acceptable, which in turn depends on the intended use of the measurement instrument to measure the underlying construct. Therefore, the importance of the theoretical foundations of the research construct cannot be defined only in terms of operational definitions, but must also have demonstrated its relation to other similar constructs as a part of the validity assessment (Kimberlin and Winterstein, 2008).

Fogarty et al., (2000) mentioned that a data collection measurement can only be considered valid if it is measuring what it is supposed to measure, but this assessment can only be carried out after the reliability assessment once the researcher determined that the measurement instrument is constantly measuring something i.e., what the measuring instrument is measuring links to validity. However, it is worth noting that certain types of validity such as content and face validity as discussed below are part of the initial development process. Even though certain aspects of validity can only be assessed once the researcher assessed the instrument's reliability, it is important to see validity and reliability as inter-twined concepts.

The most commonly used validity measures are face validity, content validity, criterion validity and construct validity (Kimberlin and Winterstein, 2008). However, Trochim (2000) argued that all different aspects of validity refers to construct validity, and therefore distinguished construct validity into two broader categories; translation validity, which includes aspects of face validity as well as content validity, and criterion related validity, which includes aspects of predictive, concurrent, convergent and discriminant validity. According to Fogarty et al., (2000), not all measurement instruments can be checked for all types of validity, as it depends on the nature of the measurement instrument and external restrictive factors, such as comparability with similar instruments. However, in line with previous studies by Abdullah (2006a) and Cronin and Taylor (1992), this research will look at four areas of validity; content validity, face validity, criterion related validity, and construct validity, which cover convergent and divergent validity.

8.11.1 Content validity

Content validity, also referred to as descriptive validity, refers to the degree to which the measurement instrument measures the construct (Letwin, 1995). According to Trochim (2000), content validity can be determined by using experts in the area of research by specifically looking at the readability, clarity and comprehensiveness of the measurement instrument. This is because, there is no statistical test to determine whether the measurement instrument and the research adequately cover a subject area which adequately represents a construct, therefore content validity depends on the judgment of the experts looking at the contents and the contrast to ensure that the construct is adequately covered (Kimberlin and Winterstein, 2008). Letwin (1995), agreed with Kimberlin and Winterstein's (2008) view, and stated that content validity can be achieved by several experts analysing the instrument to determine that the instrument contains everything it should and doesn't include anything that it shouldn't. Therefore, content validity can be considered as a subjective and qualitative assessment of the measurement instrument. Further, Fogarty et al., (2000), mentioned that where applicable, the content of the measurement instrument must show its compatibility with relevant theories, and the categories used in the measurement instrument must be linked with relevant discussions in literature, and strategies on how to employ a similar instrument to measure a similar construct. In addition, Fogarty et al., (2000), also mentioned that experts can be employed to assess the suitability of the contents of the measurement instrument as well as its relative interpretation. For example, for measurement instruments that are intended to measure an absolute construct, the expert panel can be used to measure the theoretical accuracy of the measurement instrument, whereas if the measurement instrument is used to measure a relative construct, such as the one used in this study, experts can comment as interpreters on the validity of the phrases used in the instrument.

Brown (2006), indicated that caution must be exercised when using pilot groups as a form of improving content validity, as it is possible that the pilot group is using test-taking or test-performing strategies, which in turn means that they may be testing the testability of the instrument, as opposed to providing feedback on the content. Further, pilot study may also lead to discoveries that the instrument is measuring aspects that the research did not intend to measure.

In this research, several experts' commented during the development phase of the survey instrument specifically looked at the outcomes of the focus groups and compared them with their own expert views. Experts used during the study comprised of academics as well as experts in the field of private as well as state education in the UK. The feedback gathered during the expert panel reviews covered both content relevant to established academic theories, as well as the general interpretation of the content.

In addition, a pilot study group consisted of students who are currently studying at, or previously studied at private colleges in the UK, which enabled the researcher to achieve effective content based feedback.

The feedback received from the expert panel, the focus group as well as the pilot study group were all considered by a proofreading team, which consisted of individuals who have good knowledge and understanding of the private colleges in the UK, as well as two proofreaders with no links to private colleges. This mix was purposely chosen to ensure the right balance between the contextual understanding of the proofreaders as well as general interpretation improvements of questions. In addition, further comments were gathered from the pilot study group as well as proofreaders to ensure the survey's readability, clarity and comprehensiveness.

Further the measurement instrument underwent a comparable assessment with other instruments that had been previously employed to assess similar constructs as identified in the previous chapters to ensure previous key instrument constructs have been taken into account in developing this particular measurement instrument.

All the measures above have been taken to maximise the content validity of the survey instrument by eliminating all possible options for misinterpretation of questions as well as to avoid any key omissions of established theories.

8.11.2 Face validity

Face validity can be considered as a component of content validity and is usually achieved when a participant reviewing the measurement instrument concludes that it measures the characteristics of interest (Trochim, 2000). Further, Letwin (1995) indicated that face validity can be achieved by showing the survey instrument to untrained individuals to see whether they believe that the survey looks to have consisted of all necessary areas for assessment.

In this research, face validity has been confirmed by the use of an expert panel, a pilot study group as well as proofreaders, where they all confirmed that the survey indeed looked to be measuring service quality of independent colleges in the UK. Further, design of the measurement instrument also followed an established Likert-type scale designed and adopted by previous well established service quality models, by clearly identifying various service quality dimensions and providing

additional supportive information to participants to interpret questions the way they were intended in the first place.

8.11.3 Criterion-related validity

Criterion-related validity is determined by assessing the meaningfulness of the instrument, and how well the outcomes of this research correlate with other researchers or outcomes of the same or similar constructs that theoretically should be related, it is however important that the other measures have their own validity analysed and accepted as well (Kimberlin and Winterstein, 2008).

There are two types of criterion related validity; predictive validity and concurrent validity. Predictive validity is explained as the criterion measurement after a period of time to assess how well the outcomes of the underlying construct have been measured by the instrument (Trochim, 2000). According to Letwin (1995), predictive validity can also be explained by the ability of the research instrument to forecast future events, behaviours, attitudes or outcomes. For example in this research whether these private colleges in the UK have delivered and excelled in the five areas; flexibility, market driven, assurance, customer and focus practitioners, and managed to meet their students' expectations?

8.11.4 Concurrent validity

Concurrent validity refers to how well the outcomes of this research instrument compares and correlates with the scores or outcomes on another measure of the same construct or a very similar construct that is measured concurrently in the same subject area. According to Kimberlin and Winterstein, (2008), the concurrent measure must be considered as the gold standard measurement of the construct. According to Brown (2006), in order to demonstrate concurrent validity the researcher may invite the same group of participants to attempt the current measurement instrument as well as the established instrument and compare the agreement in results.

In order to facilitate concurrent validity, this research employed five participants from a variety of backgrounds, two participants currently studying at a private college in the UK, two participants who previously studied at private colleges in the UK and finally a participant recently enrolled to study at a private college who has not commenced studying. These five participants were given the questionnaire from this study as well as two other leading models that have adopted performance-only Likert-type scales i.e., SERVPERF (Cronin and Taylor, 1992) and HedPERF (Abduallah, 2006a). The respective correlation coefficients (r values) are then compared. In order to complete this assessment, first the dimensions that are closely linked with each other between instruments have been identified and correlation coefficients were calculated for each dimension, followed by overall measurement instrument's correlation coefficient values.

The respective correlation figures obtained are as follows:

Service Quality Dimensions Linked with HedPERF		Correlation coefficient (r)
HEdPERF Dimensions	**Service Quality Dimensions of this measurement instrument**	
Access	Flexible	0.3694
Non-Academic Aspects	Market Driven	(0.0249)
Reputation	Assurance	0.1678
Academic Aspects	Customer Focus	(0.1368)
Programme Issues	Focus Practitioners	(0.4127)

Table 51: correlation coefficient r values between this instrument and HEdPERF

The overall correlation coefficient r value between this instrument and HedPERF is 0.0198

Service Quality Dimensions Linked with SERVPERF		Correlation coefficient (r)
SERVPERF Dimensions	**Service Quality Dimensions of this measurement instrument**	
Reliability	Flexible	0.1292
Empathy	Market Driven	0.2558
Assurance	Assurance	(0.0585)
Responsiveness	Customer Focus	0.1428
Tangibles	Focus Practitioners	(0.0736)

Table 52: correlation coefficient r values between this instrument and SERVPERF

The overall correlation coefficient r value between this instrument and SERVPERF is 0.1409

The above shows that the correlation coefficient figures between the two comparable instruments are weak and most values are near zero. However, this shows that students studying at private colleges do have specific needs and expectations when it comes to service quality and the models that are currently available do not meet those requirements. Further, the lower correlation values may also arise as a result of dimensions not exactly matching with each other as well as low sample (n=5) values.

However, according to Fischer (2004), in the event of a non-existent comparable gold standard instrument, the concurrent validity can be examined by analysing correlation between variables, when research expects these variable to have close correlations by using priori knowledge. For

example priori knowledge suggests that market driven has a close correlation with customer focus, as it is common sense to assume that companies that are customer centric will have market lead strategies. Therefore, in line with Fischer (2004), the correlation r value matrix of the five service quality dimension is as follows:

	Flexible	Market Driven	Assurance	Customer Focus	Focus Practitioner
Flexible	1				
Market Driven	0.405917	1			
Assurance	0.466789	0.390847	1		
Customer Focus	0.40948	0.435168	0.372882	1	
Focus Practitioners	0.392673	0.511758	0.455429	0.372811	1

Table 53: correlation r values of service quality dimensions

As per the table above, all correlation r values are above 0.3 for all variables indicating a moderate linear relationship between variables. In particular the correlation between customer focus and market driven with r value of 0.4352 as well as the correlation between focus practitioners and market driven of 0.5118, shows good consistent outcomes. Therefore, in line with the previous studies this research can conclude the measurement instrument's concurrent validity.

8.11.5 Predictive validity

Predictive validity refers to the ability of the measurement instrument to predict future performances (Trochim, 2000). According to Brown (2006), a researcher can assess the predictive validity of a measurement instrument by understanding and evaluating forward-looking elements of variables. Therefore, predictive validity can be explained by analysing the measure instrument's agreement between results obtained by the instrument itself and results obtained from more direct and objective measurements.

In this particular research, it can be assumed that students are likely to choose to study at private colleges in UK, whereby these colleges consistently meet students' expectations across the five service quality dimensions. Therefore, the repeat enrolments of students can be considered as a good measurement of predictive validity. Further, according to Trochim (2000), predictive validity can be quantified by analysing correlation between variables. For example, those participants who have studied multiple qualifications at private colleges in the UK are expected to have a higher correlation coefficient between the five service quality dimensions.

There were a total of 7,038 participants indicating they have studied 'more than one qualification at a private college in the UK'. The respective correlation r values are as follows:

	Flexible	Market Driven	Assurance	Customer Focus	Focus Practitioners
Flexible	1				
Market Driven	0.471	1			
Assurance	0.515	0.473	1		
Customer Focus	0.524	0.478	0.441	1	
Focus Practitioners	0.406	0.533	0.439	0.319	1

Table 54: correlation r values of service quality dimensions for participants studied more than one qualification at a private college in the UK

As seen from the table above, the correlation r values are above the required 0.3 score and several variables have significantly higher r values, when compared with the overall full participation correlation matrix. Further, all r values are positive, indicating positive leaner relationships between variables. The highest correlation values are between customer focus and flexibility (0.524) and focus practitioners and customer focus showing the lowest correlation (0.319).

All correlation r values are higher for those participants that have studied multiple qualifications at private colleges apart from the correlation between focus practitioners and customer focus. Where the total instrument correlation was 0.372 and the correlation for those that have studies multiple qualifications is 0.319.

Therefore, the majority of higher correlation figures by those participants that have studies multiple qualifications are a good indication of the predictive validity of the measurement instrument.

8.11.6 Construct validity

Construct validity can be explained as the degree to which the measurement instrument measures the theoretical construct that it is intended to measure. Further, construct validity is also considered as a judgement based accumulation of evidence from numerous studies involving a variety of samples and populations, using the same measurement instrument to measure the underlying construct (Kimberlin and Winterstein, 2008). Evaluation of construct validity requires examination of the relation of the measurement instrument with variables known to be related to the construct measured by the instrument (Letwin, 1995). According to Brown (2006), the analysis of construct validity involves examination of relationships between measures of different variables, to see if the known or assumed relationships can be found. Therefore, construct validity contrasts with concurrent validity, as the latter focuses on comparing different means of measuring the same variable, whereas construct validity focuses on intra-measurement variables.

Construct validity has two areas: convergent and divergent validity. Convergent validity implies that several different methods of obtaining the same data about a given construct produced similar outcomes, or the extent to which the measurement instrument examines the degree with which the operationalisation is similar to, thereby converges on, other operationalisations that it theoretically should be similar to. Whereas divergent validity determines that the ability of the measurement instrument to estimate the underlying construct in a given area must be shown not to correlate too

closely with similar but distinct concepts or the extent to which the measurement instrument examines the degree to which the operationalisation is not similar to, thereby diverging from other operationalisations that it theoretically should not be similar to (Trochim, 2000).

Many researchers' (Parasuraman et al., 1985; Cronin and Taylor, 1992; Teas, 1993a; Abdullah, 2006a; Frost and Kumar, 2000; Zhu et al., 2002) employed factor analysis techniques to measure construct validity. According to Kline (2011), factor analysis can be described as a correlational technique which will enable the researcher to determine meaningful clusters of shared variances, known as factors. Further factor analysis assists the researcher to identify relationships or connections where different variables are maximally correlated with one another and minimally correlated with other variables. A good starting point is to first conduct a principle components analysis.

<u>8.11.6.1 Principal Component Analysis</u>

According to Leard (2014), principal component analysis is a variable reduction technique that shares many similarities with exploratory factor analysis. The variance reduction techniques are commonly adapted during the measurement instrument development stages to identify how well the individual measures combine together to measure the overall factor and the relevant construct. Therefore, the main uses of factor analysis techniques are to reduce the number of variables and to detect structure in the relationships between variables (Letwin, 1995).

The diagram below, adapted from Kline (2011: p 167) illustrates the key concepts of principle component analysis, where the underlying aim is to understand links with respective variables and factors.
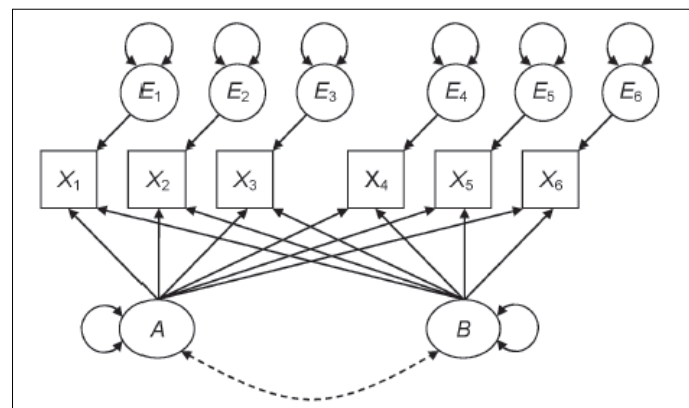
Diagram 40: Concept of Principle Component Analysis

Further, Leard (2014) highlighted three main uses of principle component analysis as to remove unrelated variables, reduce redundancy in a set of variables and remove multi-collinearity. It is common in a research to employ principle component analysis to complete all these three aims, for example, by first ensuring that all variables under individual dimensions are correlated, and that they measure that specific dimension, secondly by combining variables that measures that same area and that are correlated, and finally by clustering variables together for each dimension. However, full principal components analysis was not carried out during the pilot study stage due to the lower sample adequacy, as the KMO measure was less than 0.5. The factor reduction achieved

via the use of the expert panel mainly by combining several variables together to reflect the measurements and the better understanding of the statements. On the basis of the feedback received from the expert panel, the reduced number of respective factors and their variables has been identified and then proceed with the online survey.

The section below shows the respective correlation matrices before and after the refinement of service quality dimensions, which all show significant improvements of correlation, with all figures showing above the 0.3 threshold.

Flexible

The table 55 shows the correlation matrix for flexible with seven measures, and the table 56 shows the same matrix with the measures reduced to five.

Correlation Matrix

		F1	F2	F4	F5	F7	F3	F6
Correlation	F1	1.000	.712	.182	-.738	.237	-.277	-.338
	F2	.712	1.000	.353	-.257	.561	-.277	-.338
	F4	.182	.353	1.000	-.076	.230	.329	.025
	F5	-.738	-.257	-.076	1.000	.216	.231	.494
	F7	.237	.561	.230	.216	1.000	.000	.047
	F3	-.277	-.277	.329	.231	.000	1.000	.076
	F6	-.338	-.338	.025	.494	.047	.076	1.000

Table 55: correlation r values of flexible *before* variable reduction

Correlation Matrix

		F1	F2	F3	F4	F5
Correlation	F1	1.000	.561	.538	.434	.405
	F2	.561	1.000	.596	.441	.519
	F3	.538	.596	1.000	.455	.490
	F4	.434	.441	.455	1.000	.469
	F5	.405	.519	.490	.469	1.000

Table 56: correlation r values of flexible *after* variable reduction

As seen from the table 56 above, the reduction of measures resulted in a greater improvement of correlation between the measures. The first table (table 55) consists of several variables with the correlation r values less than 0.3, meaning weak correlations. On the other hand the second table with reduced variables shows a stronger correlation with the minimum r value of 0.4 (Leard, 2014).

Market Driven

The table 57 below shows the correlation matrix for market driven variables before reduction from six to four. As shown in the table below, several variables have r values near zero.

Correlation Matrix

		MD1	MD2	MD3	MD4	MD5	MD6
Correlation	MD1	1.000	.000	.518	.064	-.282	.166
	MD2	.000	1.000	-.375	-.123	-.218	-.280
	MD3	.518	-.375	1.000	.508	.286	-.120
	MD4	.064	-.123	.508	1.000	.161	-.237
	MD5	-.282	-.218	.286	.161	1.000	-.092
	MD6	.166	-.280	-.120	-.237	-.092	1.000

Table 57: correlation r values of market driven *before* variable reduction

The table 58 below shows the correlation r values, after the reduction of variables from six to four, with a significantly improved correlation, with all r values above the threshold of 0.3.

Correlation Matrix

		MD1	MD2	MD3	MD4
Correlation	MD1	1.000	.519	.359	.543
	MD2	.519	1.000	.541	.561
	MD3	.359	.541	1.000	.402
	MD4	.543	.561	.402	1.000

Table 58: correlation r values of market driven *after* variable reduction

Assurance

The table 59 below shows the correlation matrix for the six variables for assurance, which clearly shows weak correlations with many r scores, near zero.

Correlation Matrix

		A1	A2	A3	A4	A5	A6
Correlation	A1	1.000	.695	-.057	-.030	-.086	.074
	A2	.695	1.000	.191	.321	-.124	-.071
	A3	-.057	.191	1.000	.367	.214	.191
	A4	-.030	.321	.367	1.000	.114	.321
	A5	-.086	-.124	.214	.114	1.000	.497
	A6	.074	-.071	.191	.321	.497	1.000

Table 59: correlation r values of assurance *before* variable reduction

The table 60 below shows the revised correlation figures for the reduced assurance variables, with significantly improved r figures with all r values above the threshold of 0.3

Correlation Matrix

		A1	A2	A3	A4	A5
Correlation	A1	1.000	.545	.441	.563	.327
	A2	.545	1.000	.386	.548	.345
	A3	.441	.386	1.000	.505	.332
	A4	.563	.548	.505	1.000	.422
	A5	.327	.345	.332	.422	1.000

Table 60: correlation r values of assurance *after* variable reduction

Customer focus

The two tables below shows the respective correlation matrices before and after the reduction of variables for the customer focus dimension. As shown in the table 61, the correlation r scores and near zero in the first table, this shows poor correlations between the seven variables.

Correlation Matrix

		C1	C2	C3	C4	C5	C6	C7
Correlation	C1	1.000	-.155	.586	.231	-.163	.220	-.160
	C2	-.155	1.000	.023	-.149	.394	.019	-.259
	C3	.586	.023	1.000	.048	.226	.459	-.335
	C4	.231	-.149	.048	1.000	-.183	.040	-.217
	C5	-.163	.394	.226	-.183	1.000	.071	.000
	C6	.220	.019	.459	.040	.071	1.000	.139
	C7	-.160	-.259	-.335	-.217	.000	.139	1.000

Table 61: correlation r values of customer focus *before* variable reduction

Correlation Matrix

		CF1	CF2	CF3	CF4
Correlation	CF1	1.000	.371	.499	.528
	CF2	.371	1.000	.454	.444
	CF3	.499	.454	1.000	.448
	CF4	.528	.444	.448	1.000

Table 62: correlation r values of customer focus *after* variable reduction

However, the table 62 above shows the correlation r scores after the number of variables have been reduced from seven to four. As seen from the table 62 above, correlation r scores have significantly improved as a result with all r values above the threshold of 0.3

Focus Practitioners

The table 63 below shows the correlation matrix for the five focus practitioners' statements, which show a weak correlation r scores.

Correlation Matrix

		FP1_	FP2	FP3	FP4	FP5
Correlation	FP1_	1.000	.055	.429	-.108	-.119
	FP2	.055	1.000	-.562	-.212	.312
	FP3	.429	-.562	1.000	.059	-.149
	FP4	-.108	-.212	.059	1.000	.514
	FP5	-.119	.312	-.149	.514	1.000

Table 63: correlation r values of focus practitioners *before* variable reduction

The table 64 below shows the revised correlation matrix for the three focus practitioner statements. After removing the screening statement for home/EU and non-EU students there is a significantly improved correlation, with all r values above the threshold of 0.3

Correlation Matrix

		FP1	FP2	FP3	FP4
Correlation	FP1	1.000	.446	.393	.443
	FP2	.446	1.000	.437	.480
	FP3	.393	.437	1.000	.456
	FP4	.443	.480	.456	1.000

Table 64: correlation r values of focus practitioners *after* variable reduction

Therefore, this study proceeds with confirmatory factor analysis, on the basis of the improved correlation data as well as the views of expert panel.

8.11.6.2 Confirmatory factor analysis

Unlike exploratory factor analysis, confirmatory factor analysis assumes a restricted factor model and therefore, the links between factors and variables must be pre-defined (Kline, 2011). The following diagram, adapted from Kline (2011: p 174) illustrates the components of confirmatory factor analysis.
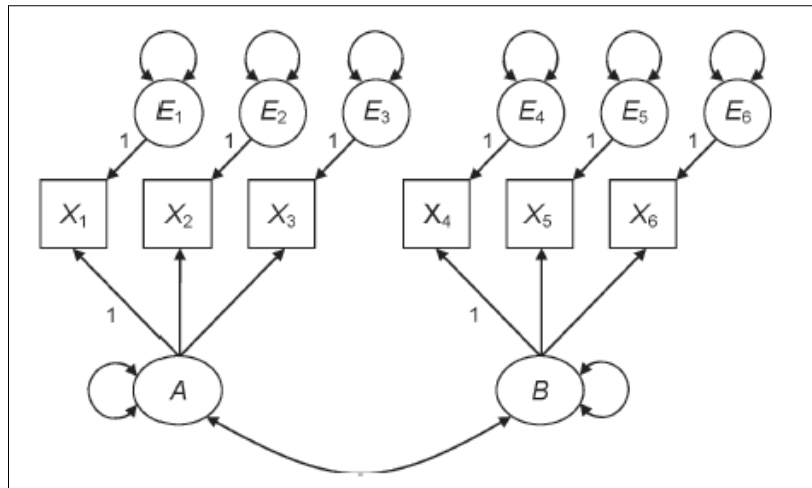
Diagram 41: Concept of Confirmatory Factor Analysis

Further, confirmatory factor analysis requires the researcher to determine a priori model, the number of factors, which items or variables to load on each factor and a model supported by theory or previous research. Whereas the exploratory factor analysis determines the factor structure and explains a maximum amount of variance (Kline, 2011).

Structural Equation modelling (SEM) is a computer based analysis tool that can be used to conduct confirmatory factory analysis. In this research IBM's SPSS AMOS ® has been used to produce the analysis and output. According to Hooper et al., (2008) structural equation modelling has become one of the main techniques used by researchers in social sciences. However, academic debate continues on, how the best model can be achieved using the indices and outcomes. Hooper et al., (2008) cautioned the use of indices to drive the model fit, as the model fit must not be solely based on the indices produced by the structural equation modelling techniques alone, but by understanding underlying theories of the construct.

The following covariance standardised coefficient diagram was produced to demonstrate the model fit using IBM's SPSS AMOS ® software. In constructing the diagram below, each variable was loaded into pre-determined factors, with the five factors allowed to correlate freely. Initial inspection of the model below indicates that the variances load well to factors, with all load values above 0.60. In addition, the correlation between the five factors shows good strong correlation values.
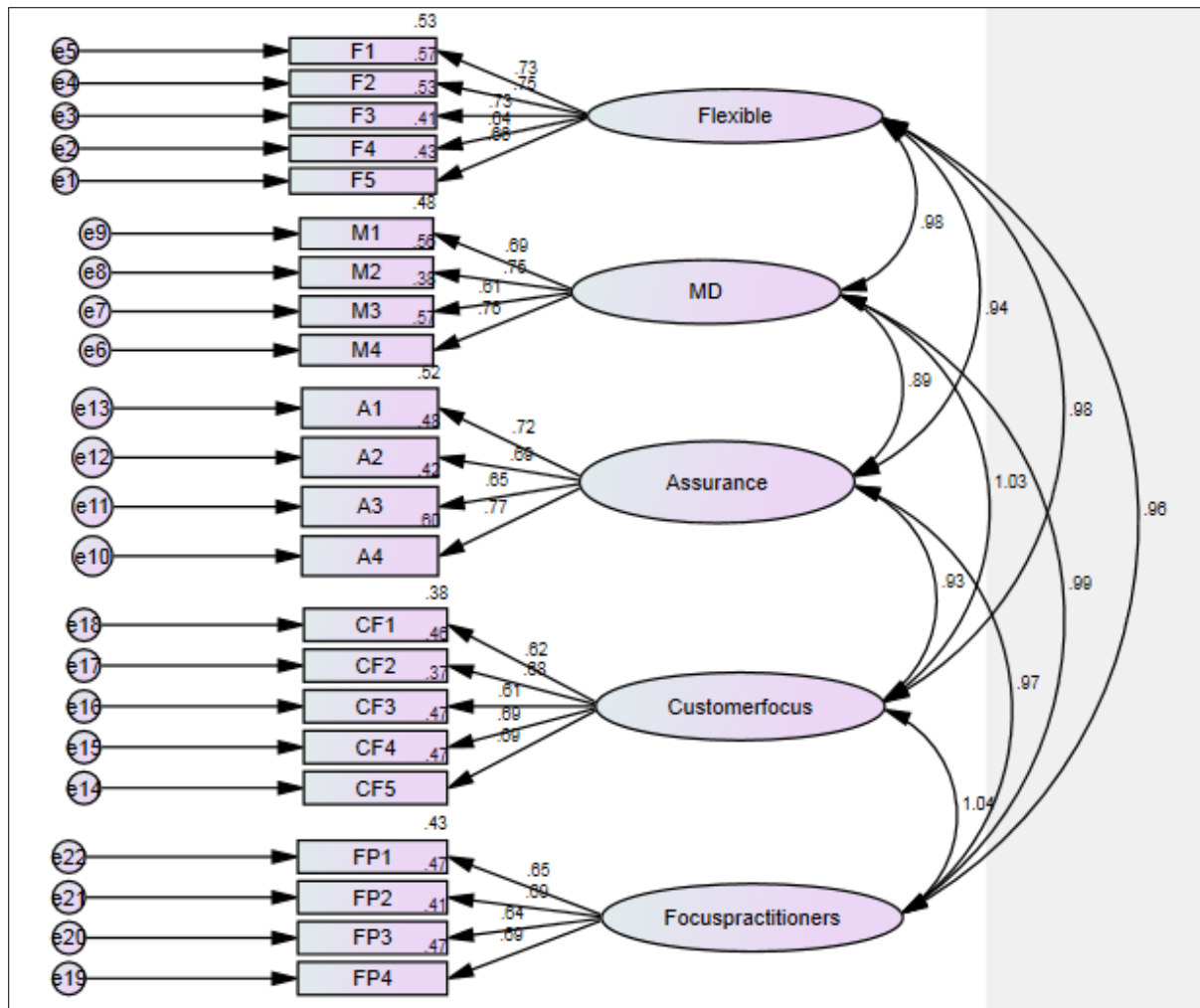
Diagram 42: standardised Confirmatory Factor Analysis output path diagram, SPSS AMOS ®

The output produced by the structural equation modelling can be analysed using a variety of indices, and their interpretation can determine the model's fit. According to Hooper et al., (2008), these indices can be broadly categorised into two categories as; absolute fit indices and incremental fit indices. For example, absolute fit indices determined how well a priori model fits the sample data and demonstrates which proposed model has the best fit. Usually, absolute fit indices prove the most fundamental indication of how well the proposed model fits and data gathered, but comparing how well the model fits in comparison to having no model. Whereas, incremental fit indices, also known as comparative or relative fit indices, can be explained as a group of indices that compare the model with a baseline model (ibid).

The most common absolute fit models include; chi-square, root mean square error of approximation (RMSEA), goodness of fit statistics (GFI), and root mean square residual (RMR). Whereas, incremental fit indices include normed fit index (NFI), comparative fit index (CFI), as well as parsimony fit indices (Arbuckle, 2003; Byrne, 2001; Hooper et al., 2008).

Absolute fit indices

The Chi-square value can be explained as the most commonly used measure of examining the model fit by assessing the discrepancy between the sample and fitted covariance matrices (Hooper et al., 2008). A good model fit will provide an insignificant result at p 0.05 threshold. However, it is worth noting some major limitations of chi-square assessment as firstly it assumes multivariate normality and samples with outliers, or slight skewness will result in rejections. Secondly, a chi-square statistic is sensitive to sample sizes and always rejects the model when large samples are involved (Kline, 2011). Therefore, a sample used in this study, where n > 12000, is guaranteed to have the model rejected. However, according to (Arbuckle, 2003) it is always good practice to mention the chi-square statistic. The chi-square for this model is significant (X2 = 31849.494, df = 199, p < 0.001), therefore the null hypothesis can be rejected. Further, Hooper et al., (2008) suggested calculating relative/normed chi-square (X2/df), as this can be a better indication of the fit. The relative/normed chi-square figure is 160. Even though there are no recommendations of the relative/normed chi-square figure, a lower number generally indicates a better fit.

Measurement based on the population discrepancy indices are widely used as a determinant of model fit. The Root Mean Square Error of Approximation (RMSEA) is widely used by various researchers, however once again the RMSEA score is sensitive to sample sizes and larger samples generally generate higher scores for RMSEA. The RMSEA demonstrates how well the model, with unknown but optimally chosen parameter estimates would fit the populations covariance matrix, therefore the RMSEA favours parsimony as it will choose the model with the lesser number of parameters (Hooper et al., 2008). The specific model employed in this research can be considered as a complex nested model therefore the RMSEA figure is expected to indicate a poor model fit. According Byrne, (2001) RMSEA ranges between 0.05 to 0.10 can be considered a fair fit and values above 0.10 indicate a poor fit. The RMSEA score obtained for this model is 0.113, which indicates a poor or mediocre fit. However, it is worth noting that RMSEA is sensitive to complex models with large sample sizes. Also, the respective PCLOSE value obtained was significant at p = 0.001, which indicates a poor fit.

As both absolute fit indices are sensitive to sample sizes and complexity of the model, the analysis will now move on to incremental fit indices.

Incremental fit indices

The parsimony adjusted measures obtained for Parsimony-adjusted Normed Fit Index (PNFI) is 0.696, and the Parsimony-adjusted Comparative Fit Index (PCFI) is 0.697. According to Arbuckle (2003) scores near zero indicate a poor fit, and scores near one indicate a good fit. The scores obtained are near 0.7, indicating a good fit of the model. Further, Parsimony ratio (PRATIO) is also an indication of the goodness of fit, and the score obtained is 0.861, which once again indicates the fit of the model. Also, the number of estimated parameters (NPAR) figure obtained is 76, showing a lower figure, as this value can go up to an infinite number, shows yet again the good fit of the model.

Further, minimum value of discrepancy (CMIN), similar to chi-square is sensitive to large samples. Therefore studies with larger samples always received larger figures. For example, the CMIN/DF figure obtained was 160.04, which is significantly higher than the recommended range (ibid; Byrne, 2001).

Another indicator of the model fit is the incremental and comparative indices. For example, Normed Fit Index (NFI) score obtained is 0.808, whereas scores near 1 indicates a good fit. Normed Fit indices assess the model by comparing the chi-square value of the model to the chi-square of the null model (Hooper et al., 2008). Further, a normed fit indices value near 0.9 is considered as a good fit. Similarly, Relative Fit Index (RFI) scores and Incremental Fit Index scores (IFI) obtained were 0.778 and 0.809, once again indicating a good fit, as both scores are near the perfect score of one (Byrne, 2001). Arbuckle (2003) suggested that Comparative Fix Index (CFI) is a better indication of model fit than NFI and IFI, as it takes into account the sample size and performs better even with small sample sizes. The CFI score obtained is 0.809, which is once again close to the recommended good fit score of 0.90 (Hooper et al., 2008).

Finally, Hoelter's Critical N model (HOELTER) can be accepted for this research as the sample size is greater than 200 participants. This model can be accepted with p = 0.05, therefore indicating a good model fit (ibid).

Discussion

According to Hooper et al., (2008), it is not uncommon to find that the fit of a proposed model is poor and allowing modification indices, as discussed above, to drive the process of achieving a better model fit is not always advisable. It is therefore, a good practice to analyse the model in detail to identify any weaknesses rather than choose those indices that best fit the model. Further, Byrne (2001), commented on the pitfalls of using the most popular indices to assess the model fit, as the researcher will simply rely on purely historical reasons, rather than what is a best fit for the model. Hooper et al., (2008) suggested that having a good variety of model fit indices enables the researcher to gain a better understanding of the model.

Further, Byrne (2001) suggested that it is good practice to assess the fit of each construct and its items individually to determine whether there are any items that are particularly weak. For example, items with squared multiple correlations less than 0.20 should be removed from the analysis as this indicates a very high level of error. The table below shows the respective squared multiple correlation figures of each variable, with all values at or above 0.40, which is well above the 0.20 threshold suggested by Byrne (2001). Therefore, the 22 observed variables indicate that the respective factor explains a higher portion of the variance of between 37% (V16) to 59% (V13). For example, variable 19, also refers to the question 19, explains 42% of the predictive variance, or in other words the error variance of V19 is approximately 57.3% of the variance of V19 itself.

	Estimate
V19	.427
V20	.472
V21	.407
V22	.470
V14	.383
V15	.460
V16	.373
V17	.474
V18	.471
V10	.524
V11	.482
V12	.418
V13	.595
V6	.476
V7	.559
V8	.376
V9	.570
V1	.533
V2	.569
V3	.530
V4	.410
V5	.431

Table 65: Squared multiple correlations between variables

The following table shows the unstandardised regression weights as well as the standard errors of the 22 variables. As seen from the table, the critical ratio (CR) is greater than 1.96 for a regression weight, meaning that path is significant at the .05 level or better.

			Estimate	S.E.	C.R.	P	Label
V5	<---	Flexible	1.000				
V4	<---	Flexible	1.113	.017	64.353	***	
V3	<---	Flexible	1.142	.016	71.868	***	
V2	<---	Flexible	1.272	.017	74.039	***	
V1	<---	Flexible	1.169	.016	72.071	***	
V9	<---	Marketdriven	1.000				
V8	<---	Marketdriven	.902	.013	69.325	***	
V7	<---	Marketdriven	1.078	.012	86.558	***	
V6	<---	Marketdriven	.886	.011	79.012	***	
V13	<---	Assurance	1.000				
V12	<---	Assurance	.729	.010	72.386	***	
V11	<---	Assurance	.780	.010	78.447	***	
V10	<---	Assurance	.825	.010	82.265	***	
V18	<---	Customerfocus	1.000				
V17	<---	Customerfocus	1.009	.014	73.591	***	
V16	<---	Customerfocus	.768	.012	65.655	***	
V15	<---	Customerfocus	1.015	.014	72.575	***	
V14	<---	Customerfocus	1.144	.017	66.510	***	
V22	<---	Focuspractitioners	1.000				
V21	<---	Focuspractitioners	.971	.014	67.821	***	
V20	<---	Focuspractitioners	1.359	.019	72.751	***	
V19	<---	Focuspractitioners	.876	.013	69.395	***	

Table 66: Unstandardised regression weights between variables and factors

As seen from the table above, all regression weight estimates are positive and near 1.000, with very low standard errors, meaning a strong regression between the variables and factors. This shows strong positive correlations between factors and variables.

The standardised regression weights can be interpreted as the correlation between the observed variable and the corresponding common factor. All z scores are above 0.6, which indicates positive correlation between the variable and the respective factor (Hooper et al., 2008)

	Estimate
V5 <--- Flexible	.656
V4 <--- Flexible	.640
V3 <--- Flexible	.728
V2 <--- Flexible	.754
V1 <--- Flexible	.730
V9 <--- Marketdriven	.755
V8 <--- Marketdriven	.613
V7 <--- Marketdriven	.748
V6 <--- Marketdriven	.690
V13 <--- Assurance	.771
V12 <--- Assurance	.647
V11 <--- Assurance	.695
V10 <--- Assurance	.724
V18 <--- Customerfocus	.686
V17 <--- Customerfocus	.688
V16 <--- Customerfocus	.610
V15 <--- Customerfocus	.678
V14 <--- Customerfocus	.619
V22 <--- Focuspractitioners	.685
V21 <--- Focuspractitioners	.638
V20 <--- Focuspractitioners	.687
V19 <--- Focuspractitioners	.653

Table 67: standardised regression weights between variables and factors

Once again the standardised regression weights, which show respective standard deviation figures, are positive between all variables and factors, indicating strong positive correlations.

It is therefore important to analyse the correlation between variables to determine the underlying reasons. As seen from the correlation table below, the five dimensions, as expected, have a strong correlation near 1.0, meaning a good positive correlation, which can explain the variances of individual variables. This also raises questions of the independence of factors, as their correlations are strong, indicating the original assumption that these factors work as an integrated model to deliver the overall service quality experience and the absence of one factor over the other will result in poor delivery of service quality.

			Estimate
Flexible	<-->	Marketdriven	.979
Flexible	<-->	Assurance	.941
Flexible	<-->	Customerfocus	.983
Focuspractitioners	<-->	Flexible	.960
Marketdriven	<-->	Assurance	.887
Marketdriven	<-->	Customerfocus	1.030
Focuspractitioners	<-->	Marketdriven	.985
Assurance	<-->	Customerfocus	.925
Focuspractitioners	<-->	Assurance	.967
Focuspractitioners	<-->	Customerfocus	1.043

Table 68: correlations between factors

As explained above, table 68 shows strong positive correlations between factors, indicating that they are linked and work together to deliver the overall service quality. These strong positive correlations also indicate that factors cannot be separated as individual and independent factors.

The following table shows the respective covariance figures of the five dimensions. The higher estimate of covariance once again indicates that factors work together to produce one integrated model and that factors do not necessarily measure variables that are unique to each factor. As for example the covariance between flexible and market drive is 51%, with the highest covariance is between market driven and assurance at 65%. Once again, as identified during the focus group discussions, the five service quality dimensions are inter-linked and must work together to deliver the overall service quality.

			Estimate	S.E.	C.R.	P	Label
Flexible	<-->	Marketdriven	.517	.010	53.529	***	
Flexible	<-->	Assurance	.547	.010	53.003	***	
Flexible	<-->	Customerfocus	.475	.009	51.499	***	
Focuspractitioners	<-->	Flexible	.455	.009	50.897	***	
Marketdriven	<-->	Assurance	.653	.012	55.529	***	
Marketdriven	<-->	Customerfocus	.630	.011	56.271	***	
Focuspractitioners	<-->	Marketdriven	.592	.011	55.083	***	
Assurance	<-->	Customerfocus	.623	.012	54.175	***	
Focuspractitioners	<-->	Assurance	.639	.012	54.931	***	
Focuspractitioners	<-->	Customerfocus	.574	.011	53.936	***	

Table 69: covariance between factors

The analysis so far agrees with the outcomes of the focus group discussions and subsequent assessments by the panel of experts. However, prior to taking these findings back to the expert panel and assessing against established theories, it is good to assess the modification indices produced from the structural equation modelling, which in essence provides suggestions for

improvements of the model fit (Arbuckle, 2003). Further, according to Hooper et al., (2008) the most useful modification indices are the covariance matrix and the regression weights matrix. The following two tables show the abstracts of both matrices:

Regression Weights: (Group number 1 - Default model)

		M.I.	Par Change
V19 <---	Assurance	54.441	.059
V19 <---	Marketdriven	11.121	-.028
V19 <---	V14	18.459	-.006
V19 <---	V15	12.516	-.004
V19 <---	V16	7.531	.004
V19 <---	V17	4.197	-.003
V19 <---	V10	14.415	.005
V19 <---	V13	13.119	.005
V19 <---	V6	4.048	.003
V19 <---	V7	5.650	-.003
V19 <---	V8	7.425	-.003
V20 <---	V14	181.117	.027
V20 <---	V15	4.110	-.004
V20 <---	V16	5.246	-.004
V21 <---	Assurance	21.271	-.042
V21 <---	Marketdriven	4.741	.021
V21 <---	V15	7.426	.004
V21 <---	V17	4.820	.003
V21 <---	V10	6.106	-.004
V21 <---	V13	4.491	-.003
V21 <---	V7	8.945	.004
V21 <---	V8	64.357	.012

Table 70: regression weights and modification indices

The table above shows the respective modification indices effects of having regression between variables. For example, this research can reduce the chi-square value by 54.441, by regressing assurance and variable 19. Further, chi square value can be improved by 181.117 by regressing variables 20 and 14, which is a violation of theory and therefore cannot be accepted.

Covariances: (Group number 1 - Default model)		M.I.	Par Change
e22 <--> Customerfocus		456.585	-.057
e22 <--> Assurance		963.488	.120
e22 <--> Marketdriven		8.442	-.009
e22 <--> Flexible		8.583	.007
e22 <--> Focuspractitioners		7.585	-.007
e21 <--> Customerfocus		57.888	.029
e21 <--> Marketdriven		9.381	-.014
e21 <--> Flexible		23.114	-.016
e20 <--> Customerfocus		40.113	.020
e20 <--> Assurance		283.480	-.075
e20 <--> Marketdriven		168.948	.047
e20 <--> Flexible		26.451	-.014
e20 <--> e22		21.016	-.027
e19 <--> Customerfocus		40.767	.018
e19 <--> Assurance		145.727	-.049
e19 <--> Marketdriven		32.731	-.019
e19 <--> Flexible		44.563	.017
e19 <--> Focuspractitioners		4.840	.006
e19 <--> e20		14.514	.024
e18 <--> Customerfocus		91.736	-.035
e18 <--> Assurance		225.031	-.084

Table 71: covariance and modification indices

Once again, most of the suggested indices are between factors and standard error figures, which are indeed a violation of the theory, therefore these suggestions can be discarded. However, both tables suggest correlating different variables with factors to improve the respective chi-square figure, as the Modification Indices (MI) above shows the chi-square reduction can be achieved by making these modifications. However, most of the modification suggestions in the covariance do not make much theoretical sense as many of these factors are uncorrelated. However, the modifications suggested in the regression weights matrix can be further examined with a view to improving the model fit. However, as the chi-square statistic stands at 31849, the initial model requires significant changes to reduce this figure. Further, as suggested by Hooper et al., (2008) and Arbuckle, (2003), the findings must be analysed in close liaison with the underpinning theoretical constructs.

The following covariance matrix further illustrates that links between the factors and how closely these are linked to together. For example, all dimensions indicate a higher covariance with each other meaning that they work together, as opposed to independent and distinct factors.

	Customerfocus	Assurance	Marketdriven	Flexible	Focuspractitioners
Customerfocus	.560				
Assurance	.623	.810			
Marketdriven	.630	.653	.669		
Flexible	.475	.547	.517	.417	
Focuspractitioners	.574	.639	.592	.455	.539

Table 72: covariance matrix

As the initial studies involving the focus group and expert panel suggested a strong interlinked relationship between the five service quality dimensions, therefore the model fit cannot necessarily be achieved by factor analysis, due to the strong correlations between variables as well as factors.

The respective strong factor loading can support the convergent and discriminant validity as this shows that variables and factors are closely associated in measuring the underlying construct, at the same time the different factors measuring different constructs. However, due to the close interlinked nature of service quality dimensions, the discriminant validity demonstration is weak in nature, as for example, variables may indeed measure outcomes of more than one dimension i.e., having regular start dates, may correlate closely with flexible as well as customer focus, as well as having lecturers with several years of practical work experience may correlate closely with focus practitioners as well as market driven and so on.

Construct validity using correlation coefficient

However, Brown (2006) suggested that correlation coefficient analysis as an alternative assessment on construct validity, as opposed to factor analysis. For example, according to Brown (2006), in this process the researcher looked to see if correlations obtained accorded with what theory would predict the relationships to be. For instance, the correlation between the statement '*My College offers regular start dates throughout the year, so I can start my study programme without having to wait too long*' is expect to correlate positively with '*My College offers flexible entry requirements and is willing to accept a variety of evidences, including my relevant work experiences, as a part of my admissions application*', and the respective correlation coefficient r value obtained was indeed positive at 0.5228.

Whereas, the correlation between the statement '*My lecturers and tutors have a good level of practical work experience and they always take their own work experience to explain difficult theories*', and '*I'm concerned that my educational institution does not have a wider range of research interests, such as Universities*', expect to have a negative correlation. The correlation coefficient r value obtained for these two statements is (0.3241).

Further, the correlation coefficient between '*The enrolment/admission process of my College is easy to follow*' and '*I have a choice of different study options, such as full time, part time, online, as well as weekend and evening lessons at easy to access study locations*' are expected to have a higher positive correlation. The correlation coefficient obtained for these tow statement is 0.5891.

Finally, the correlation coefficient between statements '*I'm concerned as my College only offers a limited number of specialist qualifications, as I would prefer to have a wide variety of diverse*

qualifications to choose from' and '*The class sizes of my college are relatively small, so I've had plenty of opportunities to ask questions from my lecturers and tutors*', are expected to have a lower negative correlation coefficient figures. In line with this assumption, the correlation r value obtained was (0.4521).

As per Brown (2006), these priori predications can be used to demonstrate both convergent as well as discriminant validity of the instrument.

Now this research has established the validity and the model fit, the following table summarises the findings of this study with previous similar studies.

This research	SERVPAL (Lages and Fernandes, 2003)	HedPERF (Abdullah, 2006)	SERVPERF (Cronin and Taylor, 1992) *The figures below have been adapted by the comparative study conducted by Abdullah (2006a)*
N > 12,000	N = 30	N = 381	N = 381
RMSEA – 0.113	RMSEA – 0.110	RMSEA – 0.07	RMSEA – 0.08
NFI – 0.808	NFI – 0.90	NFI – 0.95	NFI – 0.91
CFI – 0.809	CFI – 0.92	CFI – 0.95	CFI – 0.91
IFI – 0.809	IFI – 0.92	IFI – 0.95	IFI – 0.91

Table 73: comparison of construct validity statistics between models

The above comparison shows the significant difference of the sample sizes of respective studies adapted. The RMSEA figure ranges from 0.07 to 0.113, which fall under the poor fit category for all models. The other figures, including NFI, CFI and IFI are comparable and close to the required 0.9 level of all studies. Therefore the findings of this analysis will be discussed with the expert panel, prior to arriving at the final model decision, which will be discussed in the next chapter.

8.12 Responsiveness

Finally, in addition to reliability and validity assessments of the measurement instrument, Kimberlin and Winterstein (2008) highlighted the ability to detect changes of the construct over time as a good measure of a measurement tool. They have described responsiveness of the measurement instrument as its ability to detect change over time in the construct of interest. For example, reliability is considered as a crucial component of an instrument's responsiveness and the noise that arise due to measurement errors can to a certain extent mask changes that may be attributable to the intervention.

Therefore, according to Litwin (1995) the validity and reliability of a measure will improve over time and especially when tested with a variety of different samples. For example, responsiveness to change can legitimately differ from one population to another; therefore the measurement instrument must be appropriate to the samples that are being studied (Kimberlin and Winterstein, 2008).

A discussion surrounding the responsiveness of this particular instrument took place during the expert panel discussions as well as during focus group studies. Both parties agreed that the service quality dimensions are subject to change over time, as well as the needs and expectations of the student populations. Therefore, it is imperative that the dimensions are reviewed over time to ensure that they are applicable to that particular private college. This area is further discussed in chapter 10, section 10.3.

8.13 Chapter summary

As the first chapter of section three: data analysis and the service quality model, this chapter analysed the distribution trends, reliability and validity assessments of the measurement instrument.

In determining the distribution of the sample data, this chapter specifically looked at the measures of central tendency using median, mode, mean and trimmed mean; measure of spread by analysing variance, standard deviation and standard error as well as boxplot and whiskers analysis. Finally measures of shape were conducted using skewness and Kurtosis as well as Q-Q diagrams. These analyses indicated the sample obtained was from a population that has characteristics of normal distribution, and therefore, this chapter proceeded with the analysis of reliability and validity of the data collection instrument using parametric data analysis techniques.

The chapter then looked at the reliability of the measurement instrument by calculating aspects of equivalency, stability and internal consistency of data. Statistical analysis techniques used in this area included Cronbach's Alpha Coefficient and Correlation Coefficient (r values). The values obtained were compared with previous studies and found comparable with previous findings.

Once the reliability of the measurement instrument was established, the chapter then looked at how the validity of the measurement instrument was assessed via content validity, face validity, criterion-related validity and construct validity. Aspects of correlation coefficient, confirmatory factor analysis, regression weights, covariance as well as modification indices were analysed to determine the validity of the measurement instrument. The analysis again indicated, in comparison with previous studies, that the measurement instrument meets the broadly defined validity thresholds.

Chapter 9:

Flexible, market driven, assurance, customer focus and focus practitioners

Context and the purpose of the research

Chapter 1

Introduction and the context of the research

Chapter 2

Independent Education Sector in the UK

Chapter 3

Literature Review – Service Quality and Concepts

Chapter 4

Literature Review – Service Quality Models

Methodology and the initial conceptual model

Chapter 5

Research Methodology

Chapter 6

Research Methods – Application of the research

Chapter 7

The measurement instrument

Data analysis and the Service Quality Model

Chapter 8

Analysis of distribution, reliability and validity

Chapter 9

Chapter 9A

Findings and analysis of **Flexible**

Chapter 9B

Findings and analysis of **Market Driven**

Chapter 9C

Findings and analysis of **Assurance**

Chapter 9D

Findings and analysis of **Customer Focus**

Chapter 9E

Findings and analysis of **Focus Practitioners**

Chapter 10

Development of the **final model** and discussions

Conclusions

Chapter 11

Conclusions and practical application of the conceptual model

9.0 Chapter Introduction

Now that this research has established the distribution, reliability and validity of the measurement instrument, this chapter aims to look more closely at the feedback received for individual service quality dimensions along with several inferential statistical analyses.

In order to achieve this objective, chapter nine is further divided into five sub-chapters, with each dedicated to a service quality dimension as shown in the diagram on the previous page.

Each sub-chapter will begin by conducting a graphical analysis of data for each question (under each service quality dimension), followed by several statistical analyses to identify any trends linked to demographical data collected as part of the survey i.e., gender, age group, student status as well as the number of courses studied. In addition, analyses such as correlation coefficient (r values) as well as covariance have also been examined to determine internal consistency of statements within each service quality dimension.

In addition, statistical tools such as ANOVA and t tests have been used to determine differences of means within these demographical groups.

The next five sub-chapters are therefore:

Chapter 9A – Flexible

Chapter 9B – Market driven

Chapter 9C – Assurance

Chapter 9D – Customer focus

Chapter 9E – Focus practitioners

The final part of this chapter will look at some integrated analysis of all five dimensions and how the data gathered compares with each other, as well as an overall analysis of variance and determination of such variations, using t tests, for the five service quality dimensions.

Chapter 9A

Flexible

9.1.1 Flexible – Questions 2 to 6

Flexible is referred to as the number of alternative study options offered by the participant's private college with regards to the qualifications offered, study modes, entry requirements and assessments. In addition, the complexity (or the simplicity) of the application process, the ability to change between qualifications, study modes and courses in the event that a student did not wish to continue the course they had enrolled in, are also covered under this service quality dimension.

The section below describes the feedback received for the five flexible questions, in brief, before looking at statistical data for trends.

9.1.2 Flexible – 1st question

Statement:

My College offers regular start dates throughout the year, so I can start my study program without having to wait too long.

Answered: 12,615   Skipped: 161

Answer Choices	Responses	
Strongly Disagree	0.57%	72
Disagree	2.35%	296
Disagree somewhat	4.38%	553
Undecided/neutral	21.29%	2,686
Agree somewhat	41.69%	5,259
Agree	26.93%	3,397
Strongly Agree	2.76%	348
Total		12,615
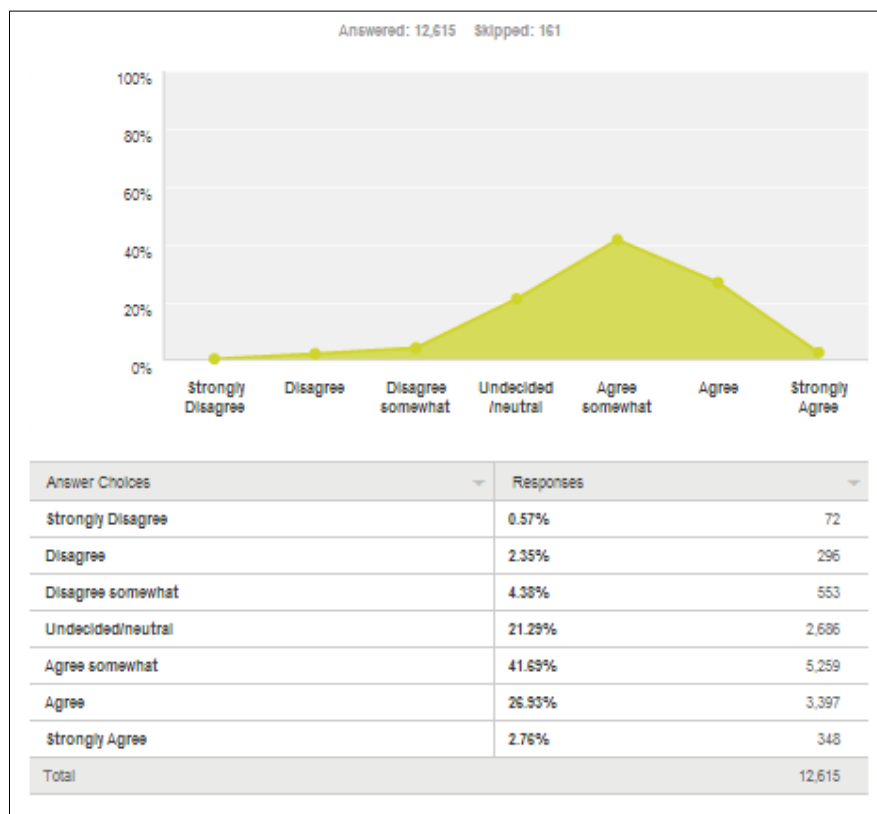
Diagram 43: Flexible, question 1

The first question in this category received 12,165 responses, where 161 participants chose not to answer the question by exiting the survey. As shown in the diagram above and the accompanying data table, nearly 70% of the respondents chose a positive answer (agree somewhat, agree or strongly agree), with 21% choosing a neutral answer, and only 7% choosing answers that are negative. This indicates that the majority of the participants accepted that their private college indeed offered them multiple start dates throughout the year and they felt that they could have started their chosen qualification without having to wait for too long.

9.1.3 Flexible – 2nd question

Statement:

My College offers flexible entry requirements and is willing to accept a variety of evidences, including my relevant work experiences, as a part of my admissions application.

Answer Choices	Responses	
Strongly Disagree	0.09%	11
Disagree	1.42%	179
Disagree Somewhat	4.12%	519
Undecided/neutral	19.56%	2,462
Agree somewhat	33.90%	4,267
Agree	30.81%	3,878
Strongly Agree	10.08%	1,266
Total		12,586
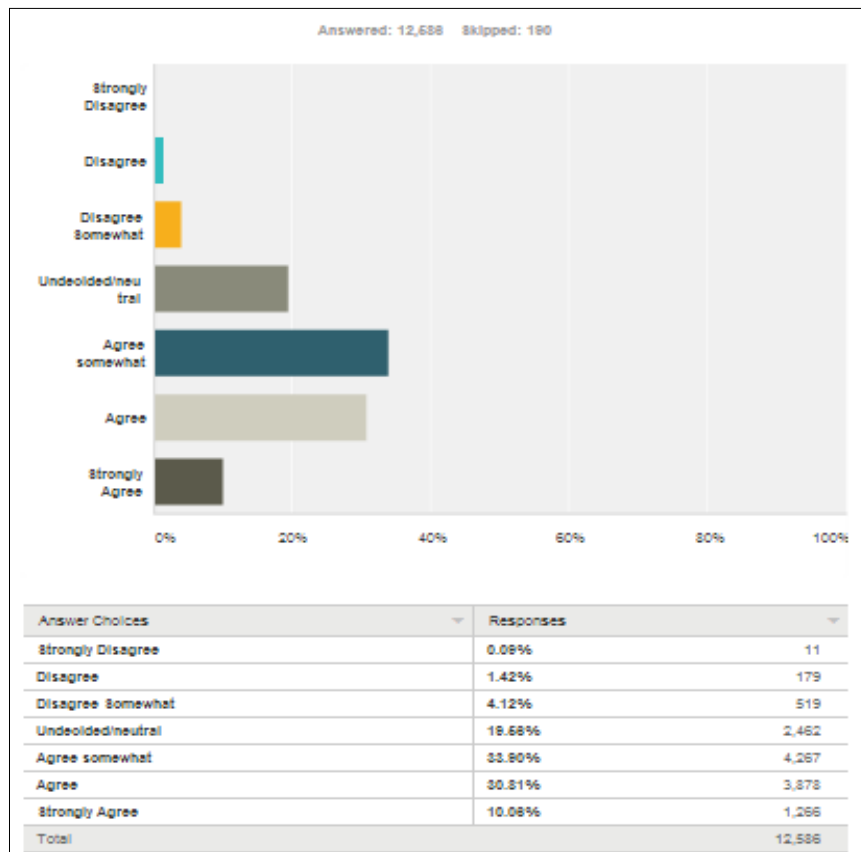
Diagram 44: Flexible, question 2

As shown in the above graph and the accompanying data table, nearly 74% of the respondents chose a positive answer (agree somewhat, agree or strongly agree), with 19% choosing a neutral and only 5% disagreeing. The very high portion of answers that agree to this statement demonstrates that participants believe that their private college had been flexible in accepting a variety of non-accredited qualification and have been flexible with their entry requirements.

9.1.4 Flexible – 3rd question

Statement:

The enrolment/admission process of my College is easy to follow.
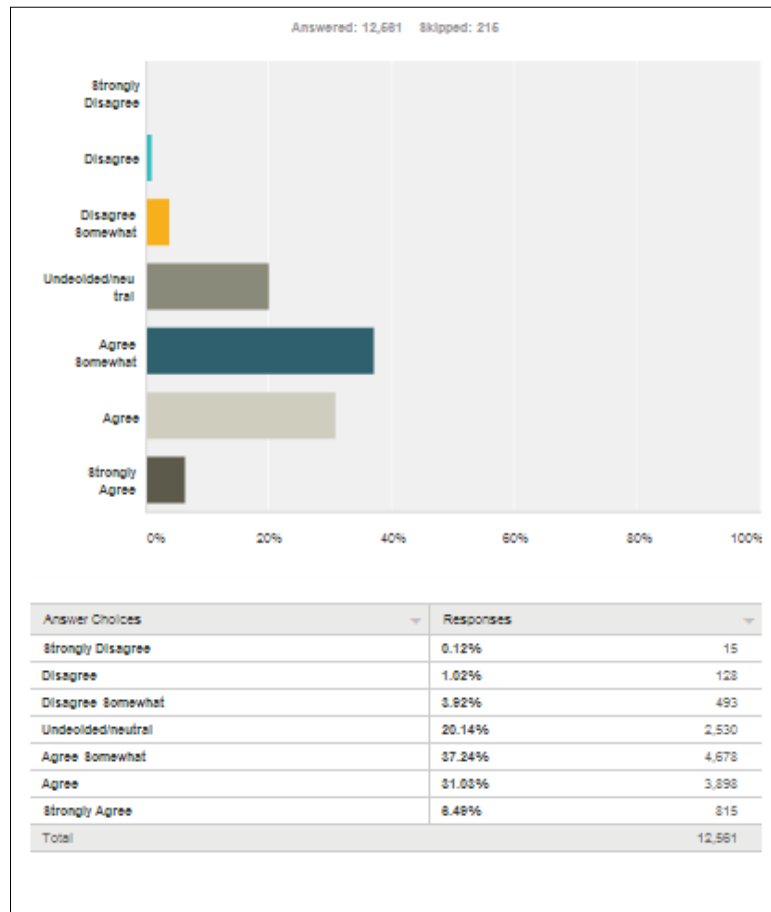
Diagram 45: Flexible, question 3

As shown in the above graph and the data table, nearly 75% of the respondents chose a positive answer, with 20% choosing a neutral answer and 5% choosing a disagreeing answer. This indicates that the majority of the participants felt that their private college indeed offered a simple application and enrolment process when compared to the state counterparts.

Statement:

I have a choice of different study options, such as full time, part time, online, as well as weekend and evening lessons at easy to access study locations.
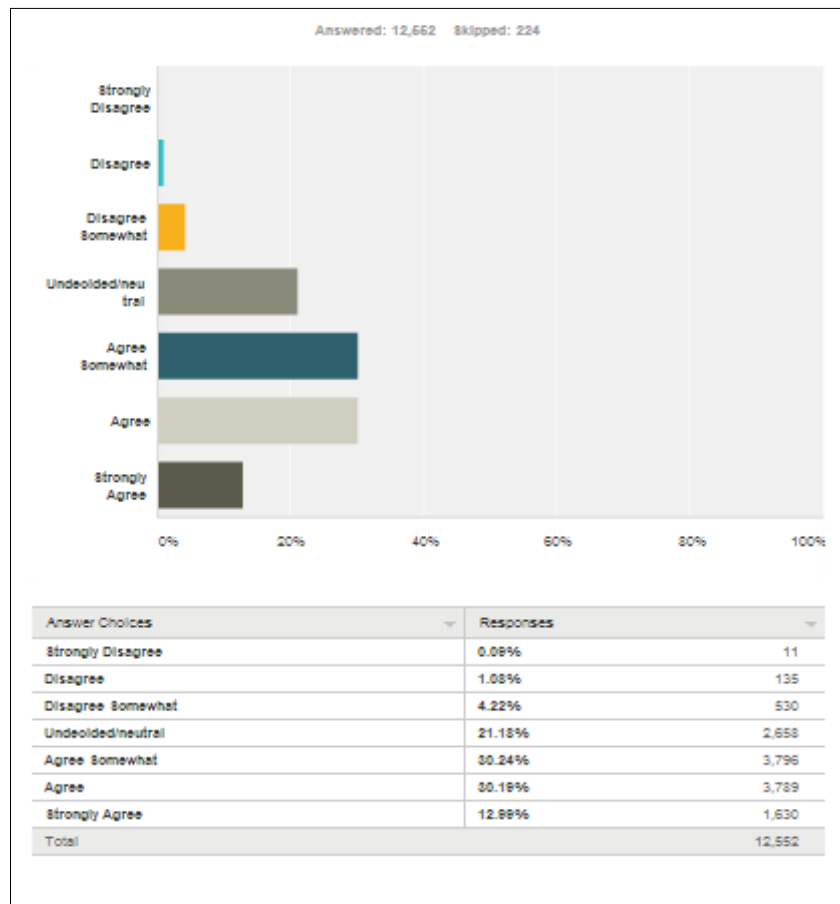
Diagram 46: Flexible, question 4

As shown above, nearly 73% of the respondents had chosen a positive answer, with 21% choosing a neutral and only 5% disagreeing with the statement. This shows that once again the majority of participants agreed that their private college offered them a variety of study options, albeit within their restrictions, as well as study locations as part of the admissions process.

Statement:

It is easy to switch to a different qualification or study mode, if I found my current qualification is not suitable for me.

Answer Choices	Responses	
Strongly Disagree	0.11%	14
Disagree	1.00%	126
Disagree Somewhat	3.82%	479
Undecided/neutral	20.65%	2,591
Agree Somewhat	45.65%	5,727
Agree	21.68%	2,720
Strongly Agree	7.05%	885
Total		12,546
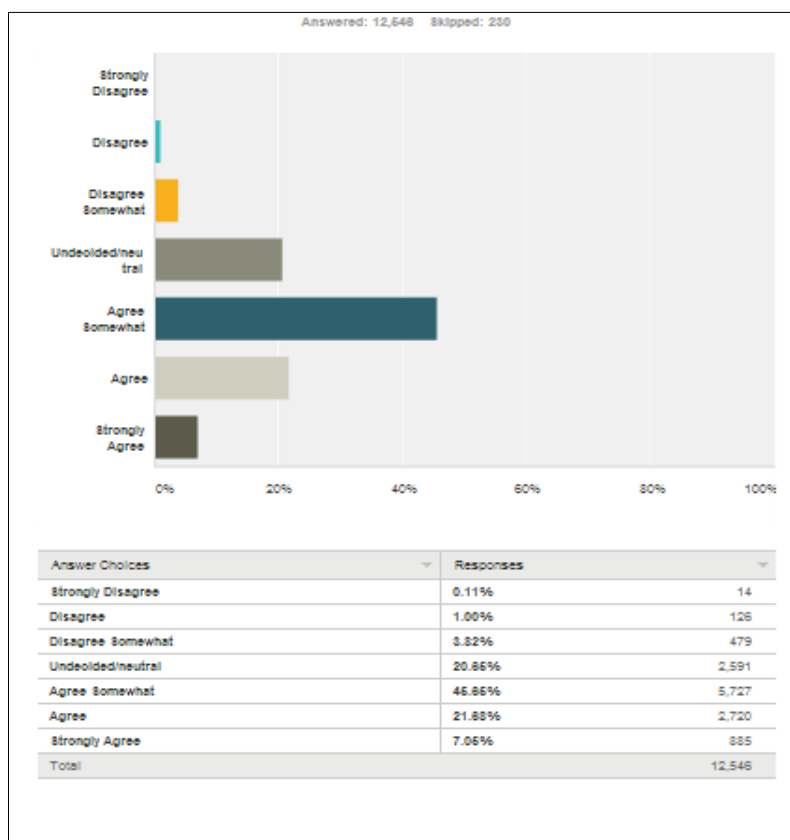
Diagram 47: Flexible, question 5

As shown above, nearly 75% of the respondents chose an answer that agreed with the statement, with 20% choosing a neutral answer, and 5% choosing to disagree. Once again this shows that participants who took this survey agreed that their private college supported them if they would like to change their qualification or study mode.

The summary of findings of the five flexible statements are as follows:

Question Number	Number of responses	Total % of: Agree Somewhat, Agree, Strongly agree	Total % of: Undecided/Neutral	Total % of: Disagree Somewhat, Disagree, Strongly disagree
2	12,615	71.38%	21.29%	7.30%
3	12,586	74.77%	19.56%	5.63%
4	12,561	74.76%	20.14%	5.06%
5	12,552	73.42%	21.18%	5.39%
6	12,546	74.38%	20.65%	4.93%

Table 74: Summary of Flexible statements

As seen from the table above, each of the flexible questions received over 71% of favourable responses with approximately 20% choosing a neutral answer. The negative responses range from 5% to 7%.

Further, the table below shows the mean figures for each statement, with over 73% across the five statements having chosen a favourable answer, thereby agreeing strongly with the statements and the service quality dimension.

Question	Strongly disagree	Disagree	Disagree Somewhat	Neutral	Agree Somewhat	Agree	Strongly Agree	Total
2	72	296	553	2686	5259	3397	348	12611
3	11	179	519	2462	4267	3878	1266	12582
4	15	128	493	2530	4678	3898	815	12557
5	11	135	530	2658	3796	3789	1630	12549
6	14	126	479	2591	5727	2720	885	12542
Total	**123**	**864**	**2574**	**12927**	**23727**	**17682**	**4944**	**62841**
Mean	**25**	**173**	**515**	**2585**	**4745**	**3536**	**989**	**12568**
	0.20%	**1.37%**	**4.10%**	**20.57%**	**37.76%**	**28.14%**	**7.87%**	

Table 75: mean of Flexible statements

However it is worth noticing that less than 8% chose to strongly agree, with 20% choosing a neutral answer, meaning that there is no difference between the flexibility offered by their private college when compared to public sector counterparts. Further, the respective correlation r values of the five flexible statements are as follows:

	Question 1	Question 2	Question 3	Question 4	Question 5
Question 1	1				
Question 2	0.561081	1			
Question 3	0.53742	0.595653	1		
Question 4	0.433934	0.440486	0.454837	1	
Question 5	0.404589	0.519029	0.490379	0.468562	1

Table 76: correlation r values of flexible statements

As seen from the correlation values above, this study can initially observe that all values are r > 0.3, which shows good correlation between statements. The minimum correlation is between questions 1 and 5 (0.4045), with the highest correlation between questions 3 and 2 (0.5956).

<u>9.1.8 Inferential statistics – Flexible</u>

The section below shows the varying demographical trends observed for the five flexible statements;

	Overall Mean	Student status		t-Test: Two-Sample Assuming Unequal Variances (Home/EU and International)		
		Home and EU	International (non-EU)	T Stat score	t Critical two-tail score	$H_0: \mu_1 - \mu_2 = 0$ $H_1: \mu_1 - \mu_2 \neq 0$
Statement 1	4.9306	5.0709	4.7885	15.4296	1.9601	T stat > t critical therefore Reject H_0
Statement 2	5.1851	5.3965	4.9876	21.3006	1.9601	T stat > t critical therefore Reject H_0
Statement 3	5.1248	5.3914	4.8670	29.8379	1.9601	T stat > t critical therefore Reject H_0
Statement 4	5.2297	5.6321	4.8387	41.9738	1.9601	T stat > t critical therefore Reject H_0
Statement 5	5.0404	5.2214	4.8688	20.3107	1.9601	T stat > t critical therefore Reject H_0

Table 77: mean figure comparisons between overall and student status for flexible

As seen from the table above, the mean figure for home and EU students is relatively higher than the figure for international (non-EU) students. Even though both mean figures show agreeable results, out of the seven point Likert scale, the home and EU students tend to agree strongly with the statements, when compared with non-EU students.

However, a comparison of the mean using two sample t-tests gave scores of t-statistic figure consistently higher than t-critical value, meaning that this research can reject the null hypothesis. Therefore, the observed difference between the sample means is indeed convincing enough to say that the average scores of flexible statements between home/EU and international students differ significantly.

	Overall Mean	Gender		t-Test: Two-Sample Assuming Unequal Variances (male and female)		
		Male	Female	T Stat score	t Critical two-tail score	H_0: $\mu_1 - \mu_2 = 0$ H_1: $\mu_1 - \mu_2 \neq 0$
Statement 1	4.9306	4.8131	5.0570	12.9344	1.9601	T stat > t critical therefore Reject H_0
Statement 2	5.1851	5.1829	5.1946	0.5887	1.9601	T stat < t critical therefore do not Reject H_0
Statement 3	5.1248	5.1148	5.1402	1.3840	1.9601	T stat < t critical therefore do not Reject H_0
Statement 4	5.2297	5.3199	5.1221	(-9.8460)	1.9601	T stat < t critical therefore do not Reject H_0
Statement 5	5.0404	5.0469	5.0289	(-1.0182)	1.9601	T stat < t critical therefore do not Reject H_0

Table 78: mean figure comparisons between gender for flexible

As seen from the table above, the mean figure for male and female participants are very similar, apart for statement one, where female participants have chosen to agree strongly with the statement when compared with male participants. Further, the male participants have a higher agreement level for statement four, when compared with the overall mean as well as female participants.

A comparison of means using two sample t-tests gave scores of t-statistic figure consistently lower for four out of five statements than t-critical value, meaning that this research does not reject the null hypothesis. Therefore, the observed difference between the sample means of statements two, three, four and five are not convincing enough to say that the average scores of flexibility statements between male and female students differ significantly. For the first statement, which refers to having regular start dates, this research rejects null hypothesis, therefore the observed difference between the sample means are convincing enough to say that the average scores for regular start dates between male and female students differ significantly.

	Overall Mean	Age					
		21 years and under	22 to 34 years	35 to 44 years	45 to 54 years	55 to 64 years	65 and over
Statement 1	4.9306	4.4647	4.5628	5.4588	5.0595	5.0384	4.3888
Statement 2	5.1851	4.4646	4.9965	5.4019	5.2342	6.4833	4.8888
Statement 3	5.1248	4.6974	4.9972	5.3255	5.1689	5.7923	4.5000
Statement 4	5.2297	4.6735	4.8796	5.3201	6.0648	5.6976	4.6666
Statement 5	5.0404	4.6457	4.9626	5.2434	5.1124	5.0730	4.6666
ANOVA							
F score		12.0009	110.2779	31.76529	583.0304	426.2543	0.4365
F critical value		2.3730	2.3723	2.3724	2.3727	2.3748	2.4790
H_0: $\mu_1 = \mu_2 = \mu_3$ H_1: at least one of the means is different.		F > F crit, reject the null hypothesis	F > F crit, reject the null hypothesis	F > F crit, reject the null hypothesis	F > F crit, reject the null hypothesis	F > F crit, reject the null hypothesis	F < F crit, do not reject the null hypothesis

Table 79: mean figure comparisons between age groups for flexible

As seen from the table above, the mean scores for age groups 21 and under, and 22 to 34 years are significantly below when compared to age groups 45 to 54 years, and 55 to 64 years. Further, the age group 55 to 64 years, have strongly agreed with statement 2, meaning that this group specifically value the acceptance of a variety of entry qualifications.

Further, the flexible statements also received relatively lower scores for the age group 65 and over, compared to the age group 55 to 64 years. Also indicated in ANOVA analyses above, apart from the age group, 65 and over, all other age groups have at least one statement with a different mean. Further, assessments determined sample t tests are not required for this stage, as the overall ANOVA and t testing scores of the five dimensions have been included in section 9.6 below.

	Overall Mean	Number of courses studied		t-Test: Two-Sample Assuming Unequal Variances (one and multiple courses)		
		One course	More than one course	T Stat score	t Critical two-tail score	H_0: $\mu_1 - \mu_2 = 0$ H_1: $\mu_1 - \mu_2 \neq 0$
Statement 1	4.9306	5.1523	4.7598	20.9656	1.9601	T stat > t critical therefore Reject H_0
Statement 2	5.1851	5.2052	5.1749	1.5681	1.9601	T stat < t critical therefore do not Reject H_0

Statement 3	5.1248	5.2517	5.0316	11.8823	1.9601	T stat > t critical therefore Reject H_0
Statement 4	5.2297	5.1104	5.3142	(-10.3133)	1.9601	T stat < t critical therefore do not Reject H_0
Statement 5	5.0404	5.0862	5.0051	4.5258	1.9601	T stat > t critical therefore Reject H_0

Table 80: mean figure comparisons for number of courses studies for flexible

The table above shows the mean figures for participants who have only studied one qualification with a private college against those participants who have studied multiple qualifications. The relatively lower mean scores of the group who have studied multiple courses indicate they are showing a higher level of expectations for the flexible attributes of private colleges. However, a comparison of means using two sample t-tests gave scores of t-statistic figures lower for two out of five statements than t-critical value, meaning that this research does not reject the null hypothesis for statements two and four. Hence, the observed difference between the sample means of statements two and four are not convincing enough to say that the average scores of flexibility statements between students that have studied one qualification and multiple qualifications differ significantly. However for statements one, three and five, the t stat is higher than the t critical, meaning that this research can reject the null hypothesis, therefore the observed difference between the sample means are indeed convincing enough to say that the average level of student satisfaction between participants that have studied one qualification and multiple qualifications differ significantly.

Finally, the table below shows the respective covariance between flexible questions.

	Statement 1	Statement 2	Statement 3	State-ment 4	Statement 5
Statement 1	1				
Statement 2	0.628723	1			
Statement 3	0.56155	0.654808	1		
Statement 4	0.503141	0.5373	0.516629	1	
Statement 5	0.410507	0.553986	0.487477	0.516783	1

Table 81: covariance values of flexible statements

The covariance is all positive between statements, which is again confirmation of the higher positive correlation amongst flexible statements. In particular, the covariance between statements 1 and 2, as well as 3 and 2, is above 0.6, meaning a higher positive correlation. The covariance between statements 1 and 5, shows the lowest, albeit positive, covariance.

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9.1.9 Order of priority – flexible

Finally, as shown in the table below, nearly 85% of the participants ranked flexible as the most important dimension in choosing to study at their particular private college in the UK.

	1	2	3	4	5	Total	Average Ranking
Flexible	84.85% 10,492	7.42% 918	4.37% 541	2.09% 259	1.26% 156	12,366	4.72
Market Driven	3.49% 431	23.16% 2,864	61.09% 7,554	5.80% 717	6.47% 800	12,366	3.11
Assured	4.72% 584	7.94% 982	24.81% 3,068	60.53% 7,485	2.00% 247	12,366	2.53
Customer-Focussed	4.47% 553	58.61% 7,248	7.30% 903	25.75% 3,184	3.87% 478	12,366	3.34
Focussed-Practitioners	2.47% 306	2.86% 354	2.43% 300	5.83% 721	86.41% 10,685	12,366	1.29

Table 82: Ranking of dimensions - flexible

Further, as shown in the table above, flexible received an overall rank of 4.75 (out of five), clearly indicating the importance that participants put for flexible aspects offered by their private college.

9.1.10 Concluding discussion for flexible

All in all, the data gathered indicates strong acceptance and importance of flexible aspects for private colleges in students choosing to study. However, as discussed in chapter eight, flexible aspects are indeed closely linked with the other four dimensions, for example, regular course start dates can be linked with customer focus aspects offered by the respective private college. The next section will explore the second service quality dimension, market driven.

Chapter 9B

Market driven

9.2.1 Market driven – Question 7 to 10

Market driven shows how a private college reacts to market changes and dynamics and continues to operate as a customer centric organisation. Market changes and other dynamics in areas such as course fees, the level of support services, such as careers support, face to face learning hours, personal tutoring, learning and study materials, along with the various other facilities provided by the tutor and the institution. The number of students in a particular classroom and the attention given to them by a lecturer or a tutor are also valued and considered under market driven.

The four questions numbered 7 to 10 have been formed to gather information on market driven qualities which are discussed below.

9.2.2 Market driven – 1st question

Statement:

My college's tuition fees are competitive to other similar providers.

Answer Choices	Responses	
Strongly Disagree	0.14%	17
Disagree	1.17%	146
Disagree Somewhat	3.08%	386
Undecided/neutral	20.24%	2,537
Agree Somewhat	35.94%	4,504
Agree	29.87%	3,743
Strongly Agree	9.54%	1,196
Total		12,532
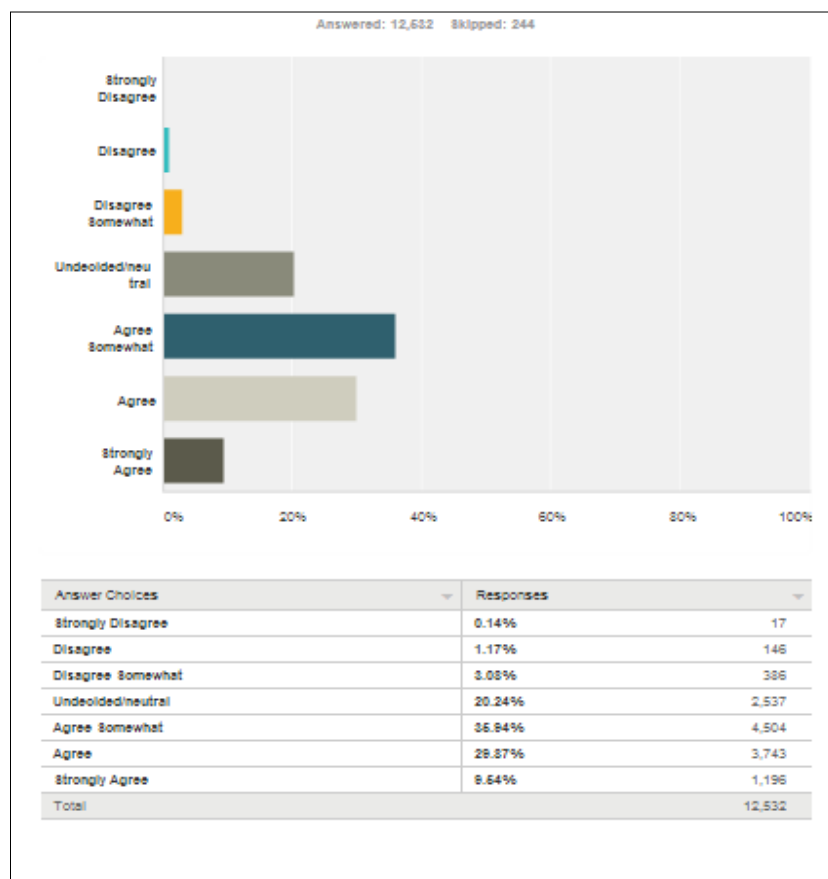
Diagram 48: Market driven, question 1

A total of 12,532 respondents have attempted this question with 244 participants choosing not to provide an answer. Total disagreement amounts to 4.4% out of the total responses. 0.14% strongly

disagreed, 1.17% disagreed and 3.08% disagreed somewhat. A further 20.24% of the respondents have chosen a neutral answer, meaning that they do not feel that there is a difference between their own private college and public sector institutions. However, 75.36% have chosen an answer agreeing to the statement, with 35.94% agreed somewhat, 29.87% agreed and 9.54% strongly agreed. A majority of over 75% of the respondents believe that their respective colleges have been maintaining a competitive range of course fees, driven by market needs and demands.

9.2.3 Market driven – 2nd question

Statement:

I have received simple study advice, for example I was made aware of what books to read and what assignments to complete for each subject.

Answer Choices	Responses	
Strongly Disagree	0.15%	19
Disagree	0.94%	117
Disagree Somewhat	3.68%	461
Undecided/neutral	19.86%	2,485
Agree Somewhat	25.27%	3,162
Agree	30.51%	3,818
Strongly Agree	19.56%	2,448
Total		12,513
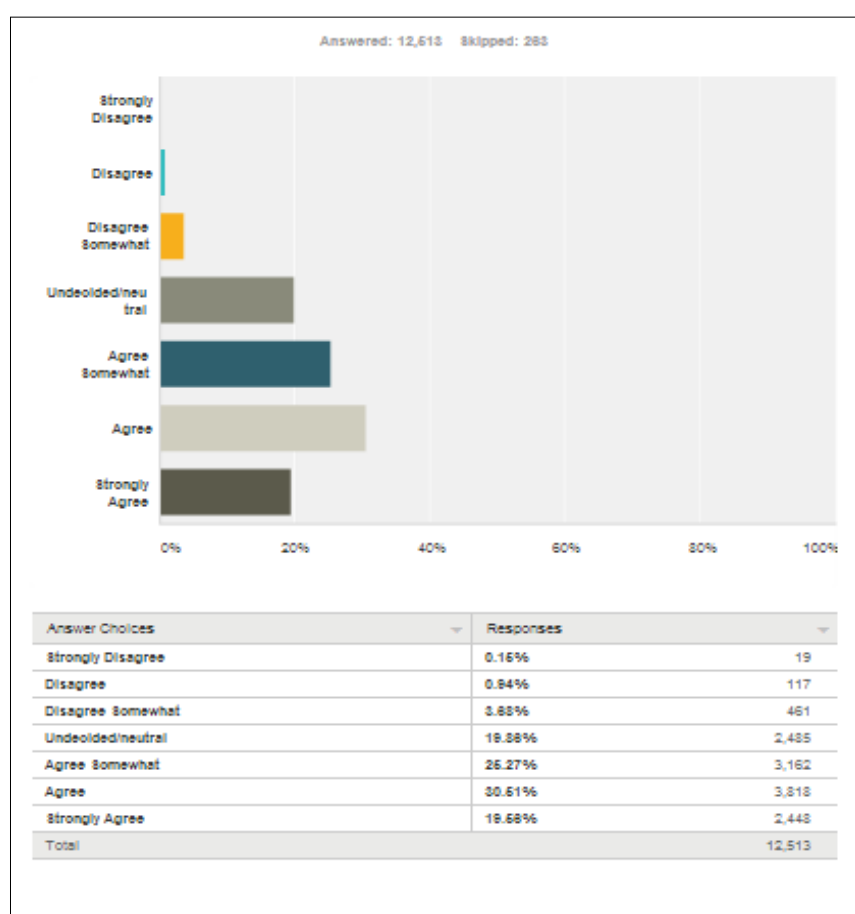
Diagram 49: Market driven, question 2

A total of 12,513 participants attempted this question and 263 respondents chose not to answer. 4.78% of the participants have chosen a disagreeing answer, with 19.86% choosing a neutral option and a further 75.36% choosing to agree with the statement. Out of those choosing to agree with the

statement 25.27% have chosen agreed somewhat, with 30.51% agrees and 19.56% strongly agrees. A majority of 75.36% have confirmed that they have received simple but essential study guidance and advice from their respective institutions, which are focused on passing their assessments. This shows the commercial awareness of the private colleges in focusing students passing their qualification and how they designed their promotional strategies around this crucial aspect of course delivery.

9.2.4 Market driven – 3rd question

Statement:

My college offers me flexible payment options, such as instalment payment plans, if I need it.

Answer Choices	Responses	
Strongly Disagree	0.15%	19
Disagree	1.14%	142
Disagree Somewhat	3.46%	433
Undecided/neutral	20.17%	2,522
Agree Somewhat	35.69%	4,464
Agree	16.41%	2,052
Strongly Agree	22.96%	2,871
Total		12,506
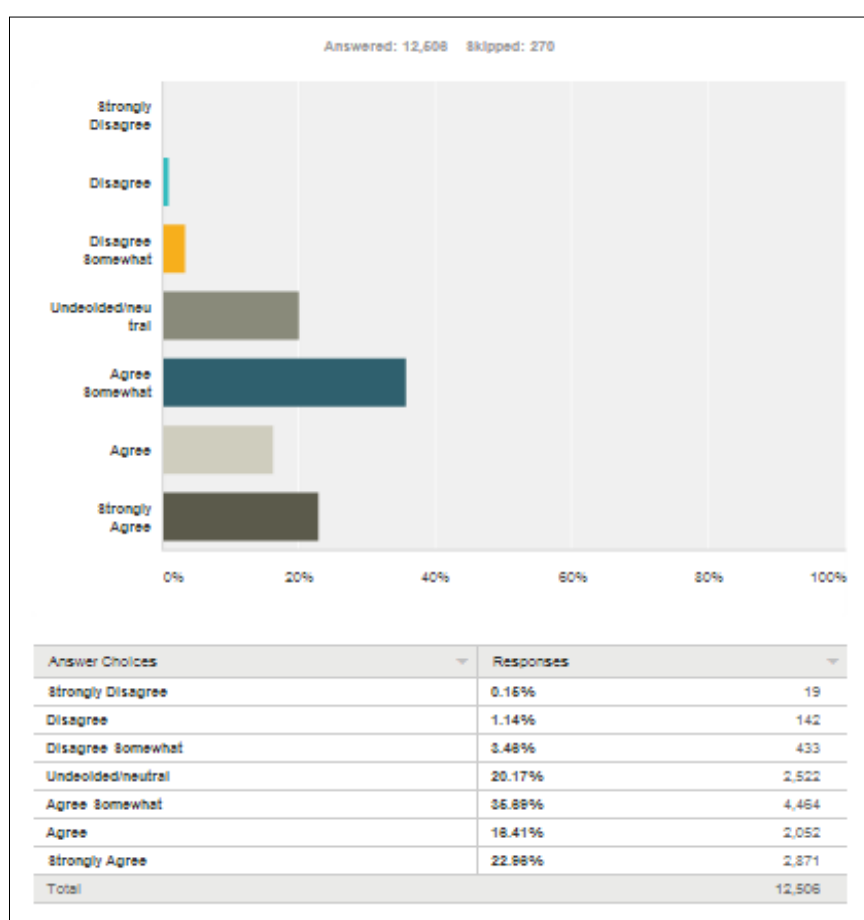
Diagram 50: Market driven, question 3

A total of 12,506 respondents have answered this question with 270 respondents choosing not to answer. 4.78% out of the respondents have chosen to disagree with the statement, with 0.15% strongly disagreeing, 1.14% disagreeing and 3.46% disagreeing somewhat. A total of 20.17% of the respondents have neutral view on the statement, therefore suggesting that there is no difference between private sector and public sector institutions with regards to payment options. The

remaining 75.08% agreed with the statement, of which 35.69% have somewhat agreed and 16.41% agreed with 22.96% have strongly agreed. This shows that private providers are more sensitive towards students' financial needs and pro-active in helping them to pay for their qualifications, while offering easy payment options where applicable.

9.2.5 Market driven – 4th question

Statement:

I was offered (or have access to) extra support, for both academic and non-academic matters.

Answer Choices	Responses	
Strongly Disagree	0.13%	16
Disagree	1.32%	164
Disagree Somewhat	3.86%	480
Undecided/neutral	19.90%	2,480
Agree Somewhat	28.78%	3,587
Agree	38.98%	4,609
Strongly Agree	9.01%	1,123
Total		12,462
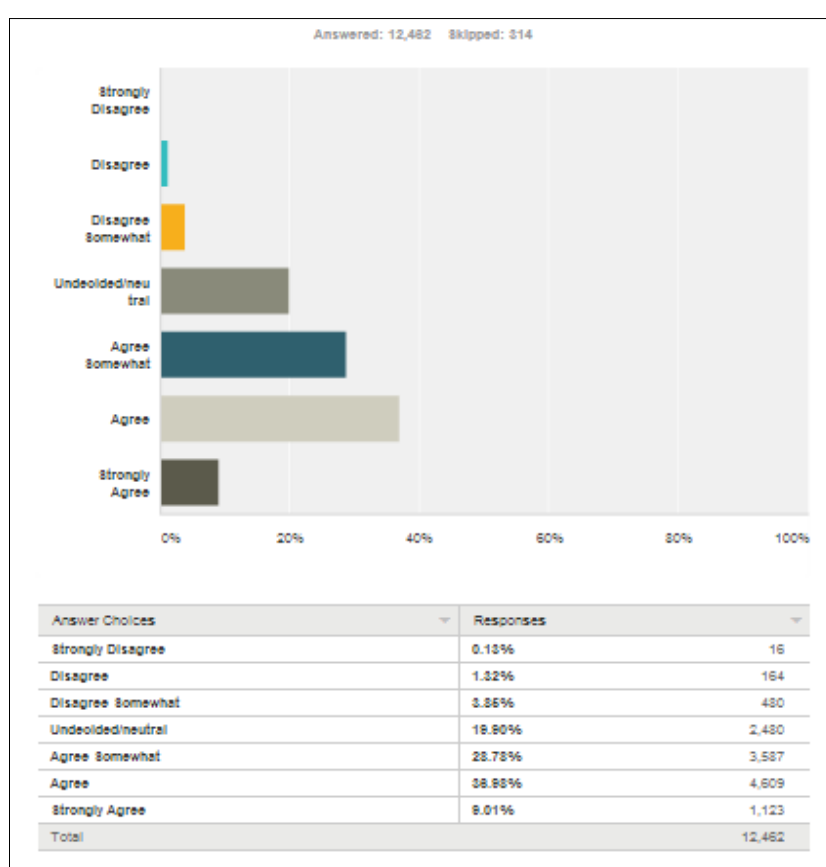
Diagram 51: Market driven, question 4

A total of 12,462 participants attempted this question, while 314 respondents have not answered. Out of the total responses received, 0.13% strongly disagreed, 1.32% disagreed and 3.86% disagreed somewhat with the statement, making a total percentage of 5.31% choosing answers that disagreed with the statement. A majority of the participants, 76.77%, have agreed with the statement and choosing answers that are either strongly agree (9.01%), agree (38.98%) and agree somewhat (28.78%). A further 19.90% of the respondents chose a neutral answer, meaning that they see no difference between public and private institutions when it comes to accessing key personnel.

The summary of findings for market driven questions are as follows:

9.2.6 Summary of findings for market driven

As shown below, nearly 75% of the participants chose to agree somewhat, agree or strongly agree to market driven statements, with 4 to 5% of the participants choosing to disagree with the four statements. A further, 20% of the participants saw no difference between the market driven activities of private and public institutions.

Question Number	Number of responses	Total % of: Agree Somewhat, Agree, Strongly agree	Total % of: Undecided/Neutral	Total % of: Disagree Somewhat, Disagree, Strongly disagree
7	12,532	75.35%	20.24%	4.39%
8	12,513	75.34%	19.86%	4.77%
9	12,506	75.06%	20.17%	4.75%
10	12,462	74.77%	19.90%	5.30%

Table 83: Summary of market driven statements

The table below shows the mean figures for each of the responses received, with over 75% of respondents' choosing to agree with the four statements under market driven, which is a clear indication that their private college did indeed meet their expectations. The mean attempted for each question is 12,500 with 15.28% strongly agreeing with the statements.

Question	Strongly disagree	Disagree	Disagree Somewhat	Neutral	Agree Somewhat	Agree	Strongly Agree	Total
7	17	146	386	2537	4504	3743	1196	12529
8	19	117	461	2485	3162	3818	2448	12510
9	19	142	433	2522	4464	2052	2871	12503
10	16	164	480	2480	3587	4609	1123	12459
Total	71	569	1760	10024	15717	14222	7638	50001
Mean	18	142	440	2506	3929	3556	1910	12500
	0.14%	1.14%	3.52%	20.05%	31.43%	28.44%	15.28%	

Table 84: mean scores of Market driven statements

Further, the respective correlation r values of the five market driven statements are as follows:

	Statement 1	Statement 2	Statement 3	Statement 4
Statement 1	1			
Statement 2	0.520982	1		
Statement 3	0.361444	0.544159	1	
Statement 4	0.542479	0.56056	0.402331	1

Table 85: correlation r values of market driven statements

As seen from the correlation values above, similar to flexible, this study can initially observe that all values are r > 0.3, which shows good correlation between statements in general. The lowest correlation is between statements 3 and 1 (0.3614), with the highest correlation between questions 4 and 2 (0.5605).

9.2.7 Inferential statistics – market driven

The section below shows the varying demographical trends observed for the four market driven statements;

	Overall Mean	Student status		t-Test: Two-Sample Assuming Unequal Variances (Home/EU and International)		
		Home and EU	International (non-EU)	T Stat score	t Critical two-tail score	H_0: $\mu_1 - \mu_2 = 0$ H_1: $\mu_1 - \mu_2 \neq 0$
Statement 1	5.1851	5.3762	5.0020	20.1897	1.9601	T stat > t critical therefore Reject H_0
Statement 2	5.3900	5.7864	5.0003	39.3445	1.9601	T stat > t critical therefore Reject H_0
Statement 3	5.3122	5.7524	4.7848	43.4882	1.9601	T stat > t critical therefore Reject H_0
Statement 4	5.2294	5.4528	5.0170	22.9409	1.9601	T stat > t critical therefore Reject H_0

Table 86: mean figure comparisons between overall and student status for market driven

As seen from the table above, the mean figure for home and EU students is relatively higher than the figure for international (non-EU) students. Both mean figures show agreeable results, i.e., above the neutral point of 4, for all four statements. The home and EU students tend to agree strongly with the statements, when compared with non-EU students. However, a comparison of means using two sample t-tests gave scores of t-statistic figures consistently higher than t-critical value, meaning that this research can reject the null hypothesis. Therefore, the observed difference between the sample means is indeed convincing enough to say that the average scores of market driven statements between home/EU and international students differ significantly.

	Overall Mean	Gender		t-Test: Two-Sample Assuming Unequal Variances (male and female)		
		Male	Female	T Stat score	t Critical two-tail score	H_0: $\mu_1 - \mu_2 = 0$ H_1: $\mu_1 - \mu_2 \neq 0$
Statement 1	5.1851	5.1538	5.2249	2.4098	1.9601	T stat > t critical therefore Reject H_0
Statement 2	5.3900	5.2806	5.4991	5.4672	1.9601	T stat > t critical therefore Reject H_0
Statement 3	5.3122	5.3940	5.2025	(-5.8385)	1.9601	T stat < t critical therefore do not Reject H_0
Statement 4	5.2294	5.1341	5.3419	6.2568	1.9601	T stat > t critical therefore Reject H_0

Table 87: mean figure comparisons between gender for market driven

As seen from the table above, the mean figures for male and female participants are very similar across all four statements. Female participants have chosen to agree strongly with the statements when compared with their male counterparts. Further, the male participants have a higher agreement level for statement three, when compared with the overall mean as well as female participants. However, a comparison of means using two sample t-tests gave scores of t-statistic figure consistently higher, apart from statement three, the t-critical value, meaning that this research can reject the null hypothesis for statements one, two and four. Therefore, the observed difference between the sample means is indeed convincing enough to say that the average scores of market driven statements between male and female students differ significantly. However, for statement two, which refers to the nature of study advice received, the observed difference between the sample means (5.3940 - 5.2025) is not convincing enough to say that the average scores of market driven statements between male and female students differ significantly.

	Overall Mean	Age					
		21 years and under	22 to 34 years	35 to 44 years	45 to 54 years	55 to 64 years	65 and over
Statement 1	5.1851	4.6819	4.8690	5.5406	5.2279	6.4966	4.7222
Statement 2	5.3900	4.7129	4.9580	5.7592	5.7802	6.5149	5.0000
Statement 3	5.3122	4.7110	4.7964	5.6424	6.2584	5.1279	4.7777
Statement 4	5.2294	4.6360	5.0185	5.6232	5.2570	5.8073	4.8333
ANOVA							
F score		1.7881	33.5779	28.7003	642.8027	412.7616	0.1130
F critical value		2.6063	2.6054	2.6055	2.6059	2.6086	2.5086
H_0: $\mu_1 = \mu_2 = \mu_3$ H_1: at least one of the means is different.		F < F crit, do not reject the null hypothesis	F > F crit, reject the null hypothesis	F > F crit, reject the null hypothesis	F > F crit, reject the null hypothesis	F > F crit, reject the null hypothesis	F < F crit, do not reject the null hypothesis

Table 88: mean figure comparisons between age groups for market driven

As seen from the table above, the mean scores for age groups 21 and under, and 22 to 34 years are significantly below when compared to age groups 45 to 54 years, and 55 to 64 years. Further, the age group 55 to 64 years have strongly agreed with statements 1 and 2, meaning that this group specifically value the payment options, as well as examination focused study advice received as a part of their qualification. Further, the market driven statements also received relatively lower scores for the age group 65 and over, compared to the age groups 55 to 64 years, and 45 to 54 years. In addition, as shown in ANOVA above, apart from age groups 21 and under, and 65 and over, this research can reject the null hypothesis for all other age groups, meaning at least one group's means are different. Further analysis using t test to determine those discrepancies are not required, as the overall ANOVA and t testing have been conducted for overall dimensions in 9.6 below.

	Overall Mean	Number of courses studied		t-Test: Two-Sample Assuming Unequal Variances (one and multiple courses)		
		One course	More than one course	T Stat score	t Critical two-tail score	H_0: $\mu_1 - \mu_2 = 0$ H_1: $\mu_1 - \mu_2 \neq 0$
Statement 1	5.1851	5.3570	5.0613	(-15.5912)	1.9601	T stat < t critical therefore do not Reject H_0
Statement 2	5.3900	5.4819	5.3114	(-7.9560)	1.9601	T stat < t critical therefore do not Reject H_0
Statement 3	5.3122	5.3112	5.3000	(-0.5155)	1.9601	T stat < t critical therefore do not Reject H_0
Statement 4	5.2294	5.3259	5.1618	(-8.4218)	1.9601	T stat < t critical therefore do not Reject H_0

Table 89: mean figure comparisons for number of courses studies for market driven

The table above shows the mean figures for participants that have only studied one qualification with a private college against those participants that have studied multiple qualifications. The relatively lower mean scores of the group that have studied multiple courses indicate they are showing a higher level of expectations for market driven attributes of private colleges. A comparison of means using two sample t-tests gave scores of t-statistic figures consistently lower than t-critical value, meaning that this research does not reject the null hypothesis for the four market driven statements for the two participant groups. Therefore, the observed difference between the sample means is not convincing enough to say that the average scores of market driven statements between students that have studied one qualification and multiple qualifications differ significantly.

Finally, the table below shows the respective covariance between market driven questions.

	Statement 1	Statement 2	Statement 3	Statement 4
Statement 1	1			
Statement 2	0.644066	1		
Statement 3	0.456698	0.773164	1	
Statement 4	0.615678	0.714003	0.523498	1

Table 90: covariance values of market driven statements

The covariance is all positive for between statements, which are yet again confirmation of the higher positive correlation amongst market driven statements, as illustrated in table 85 above. In particular

the covariance between statements 3 and 2, as well as 4 and 2 is above 0.7, meaning a higher positive correlation. The covariance between statements 1 and 3, shows the lowest, albeit positive, covariance.

<u>9.2.8 Order of priority – Market driven</u>

Finally, as shown in the table below, 23% of the participants ranked market driven as the second most important dimension in choosing to study at their particular private college in the UK.

	1	2	3	4	5	Total	Average Ranking
Flexible	84.85% 10,492	7.42% 918	4.37% 541	2.09% 259	1.26% 156	12,366	4.72
Market Driven	3.49% 431	23.16% 2,864	61.09% 7,554	5.80% 717	6.47% 800	12,366	3.11
Assured	4.72% 584	7.94% 982	24.81% 3,068	60.53% 7,485	2.00% 247	12,366	2.53
Customer-Focussed	4.47% 553	58.61% 7,248	7.30% 903	25.75% 3,184	3.87% 478	12,366	3.34
Focussed-Practitioners	2.47% 306	2.86% 354	2.43% 300	5.83% 721	86.41% 10,685	12,366	1.29

Table 91: Ranking of dimensions – market driven

Further, as shown in the table above, market driven received an overall rank of 3.11 (out of five), clearly indicating the importance participants put for market driven aspects offered by their private college.

<u>9.2.9 Concluding discussion for market driven</u>

All in all, the data gathered indicates strong acceptance and importance of market driven aspects for private colleges with students choosing to study. It is interesting to see that participants ranked market driven as the second priority above other factors, but significantly below flexible. However, as discussed in chapter eight, market driven aspects are indeed closely linked with the other four dimensions; for example, competitive prices are closely linked with regular start dates and study modes. The next section will explore the third service quality dimension, assurance.

Chapter 9C

Assurance

9.3.1 Assurance – Questions 11 to 15

The five statements under this service quality dimension refers to aspects of confidence and the recognition of qualifications offered by private colleges in the UK. For example, assurance refers to the forms of guarantees and warranties of compliance of the actual qualifications and how private colleges work with external awarding bodies and universities to provide qualifications that are not only recognised in the UK by higher education providers and universities, but also internationally by employers. In addition, assurance also looks at how the overall quality assurance is managed by the respective private colleges by taking part in both mandatory and optional quality assurance audits provided by government or nationally recognised organisations.

9.3.2 Assurance – 1st question

Statement:

All qualifications offered by my education institution are accredited and approved by a recognised awarding body or a university.

Answer Choices	Responses	
Strongly Disagree	0.10%	13
Disagree	0.94%	117
Disagree Somewhat	2.78%	346
Undecided/neutral	21.10%	2,627
Agree Somewhat	41.21%	5,131
Agree	23.53%	2,930
Strongly Agree	10.32%	1,285
Total		12,452
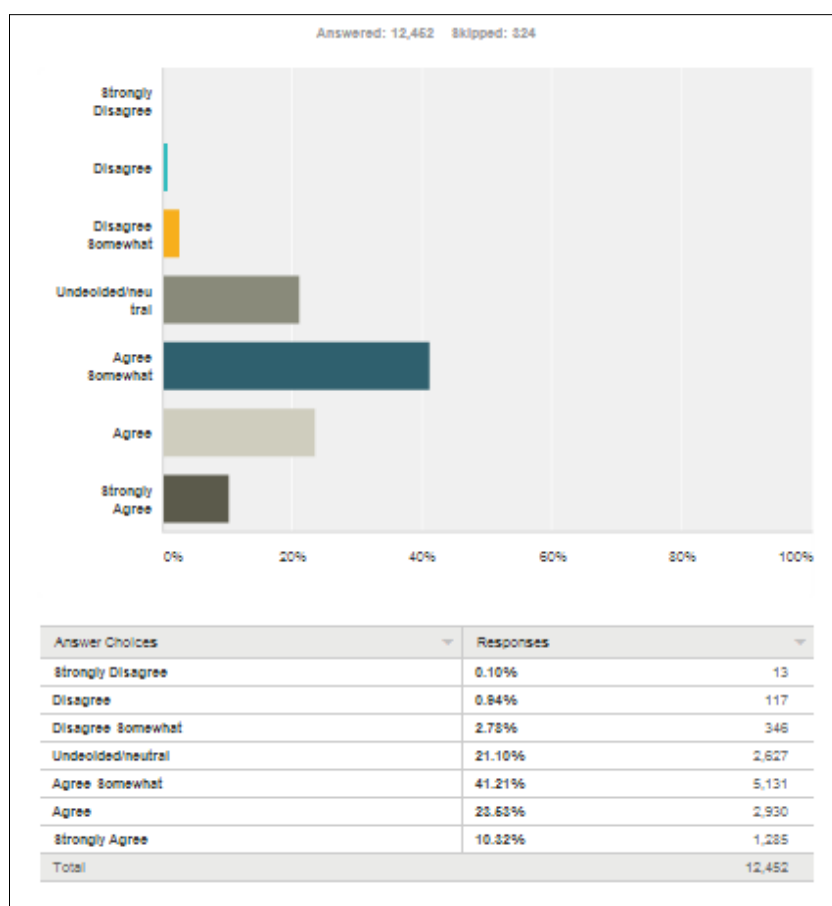
Diagram 52: Assurance, question 1

Apart from the 324 respondents that have skipped this question, 12,452 respondents have answered this question. Out of the total number of answers provided, 3.8% chose a disagreeing answer, a further, 21.10% saw no difference between private and public sector institutions. However, a

majority of 75.06% have agreed with the statement, with 41.21% agreeing somewhat, 23.53% agreeing and 10.32% strongly agreeing that their private college indeed possesses the required accreditations and approvals.

This is a key question to demonstrate the fact that the majority of students choose to study at a private college to gain a qualification that is either accredited by an awarding body or offered by a University. This means that along with other service quality dimensions, students see private colleges as a good alternative to gain a recognised qualification, which in many instances are awarded by a public sector organisation.

9.3.3 Assurance – 2nd question

Statement:

From the beginning of my course, my lecturers and tutors focused on passing the examination/assessment for my qualification.

Answer Choices	Responses	
Strongly Disagree	0.10%	12
Disagree	0.95%	118
Disagree Somewhat	3.11%	386
Undecided/neutral	20.73%	2,577
Agree Somewhat	44.73%	5,559
Agree	20.65%	2,567
Strongly Agree	9.71%	1,207
Total		12,429
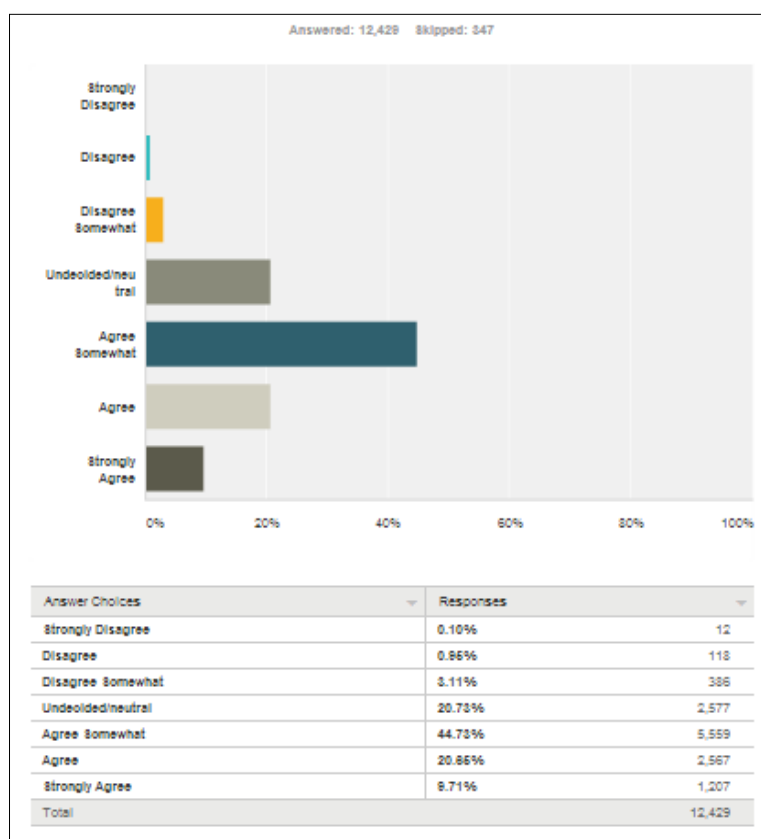
Diagram 53: Assurance, question 2

A total of 12,429 participants answered this question with 347 choosing to skip the question. Out of the total number of answers received, 4.17% have chosen to disagree with the statement, with 0.10% strongly disagreeing, 0.95% disagreeing and 3.11% disagreeing somewhat. A further 20.73% saw no difference with the examination assistance provided by private and state counterparts.

However a majority of 74.3% have agreed with the statement with 44.73% agreeing somewhat, 20.86% agreeing and 9.71% strongly agreeing. Therefore, the majority of the 12,429 participants agreed that their private college prepared them well for their examinations and assessments from the very beginning of their study program, and that their qualification delivery was driven by exam success, as well as the examination support offered, this was a factor in choosing to study at a private college.

9.3.4 Assurance – 3rd question

Statement:

My college offered me options to further my studies by either studying for a higher level qualification or transferring to a University degree qualifications, such as a 'top up' degree.

Answered: 12,421   Skipped: 355

Answer Choices	Responses	
Strongly Disagree	0.13%	16
Disagree	1.07%	133
Disagree Somewhat	3.57%	444
Undecided/neutral	20.80%	2,583
Agree Somewhat	47.87%	5,946
Agree	16.62%	2,064
Strongly Agree	9.92%	1,232
Total		12,421
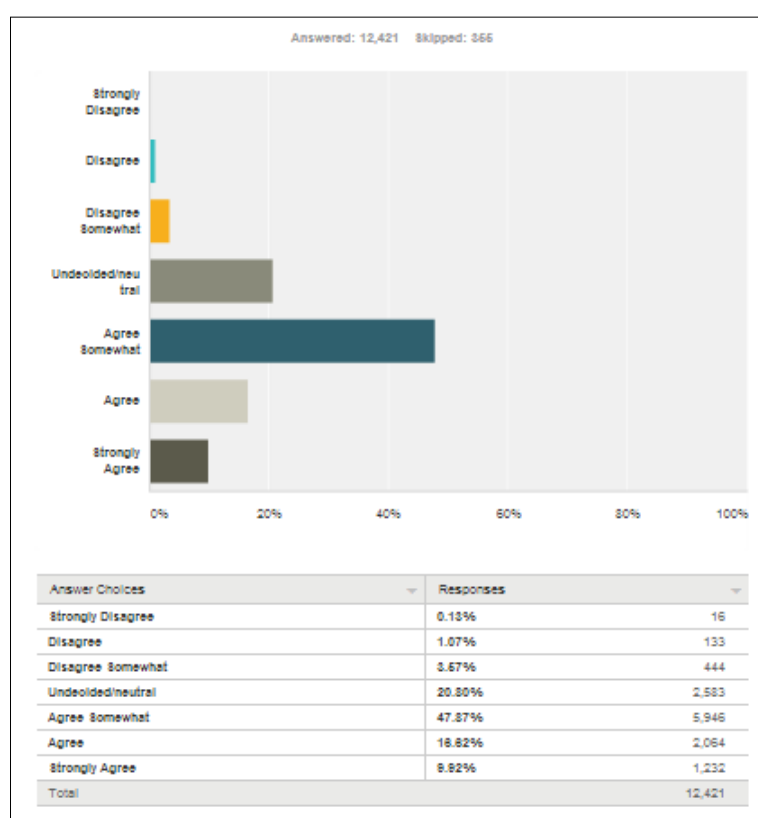
Diagram 54: Assurance, question 3

The total number of responses received for this question was 12,421, with 355 respondents not answering the question. Out of the total responses received, 0.13% strongly disagreed, 1.07% disagreed and 3.57% disagreed somewhat with this statement, thereby a total of 4.91% choosing to disagree. A majority of 73.24% have agreed with the statement, with 47.87% somewhat agreeing,

16.62% agreeing and 9.92% strongly agreeing. A further 20.80% choosing a neutral view, either they do not have strong views or were not interested in seeking further study opportunities.

As described above, over 73% of participants agreed that their respective private college offered further study options through a partnership with a university, which is a clear example of how private colleges work together with publicly funded universities to offer their students progression opportunities to gain a degree or a postgraduate qualification.

9.3.5 Assurance – 4th question

Statement:

My college holds relevant approvals and accreditations to offer qualifications, for example the accreditation from an awarding body, or university.

Answer Choices	Responses	
Strongly Disagree	0.10%	12
Disagree	0.93%	115
Disagree Somewhat	2.81%	349
Undecided/neutral	21.40%	2,657
Agree Somewhat	35.55%	4,414
Agree	18.13%	2,252
Strongly Agree	21.07%	2,616
Total		12,418
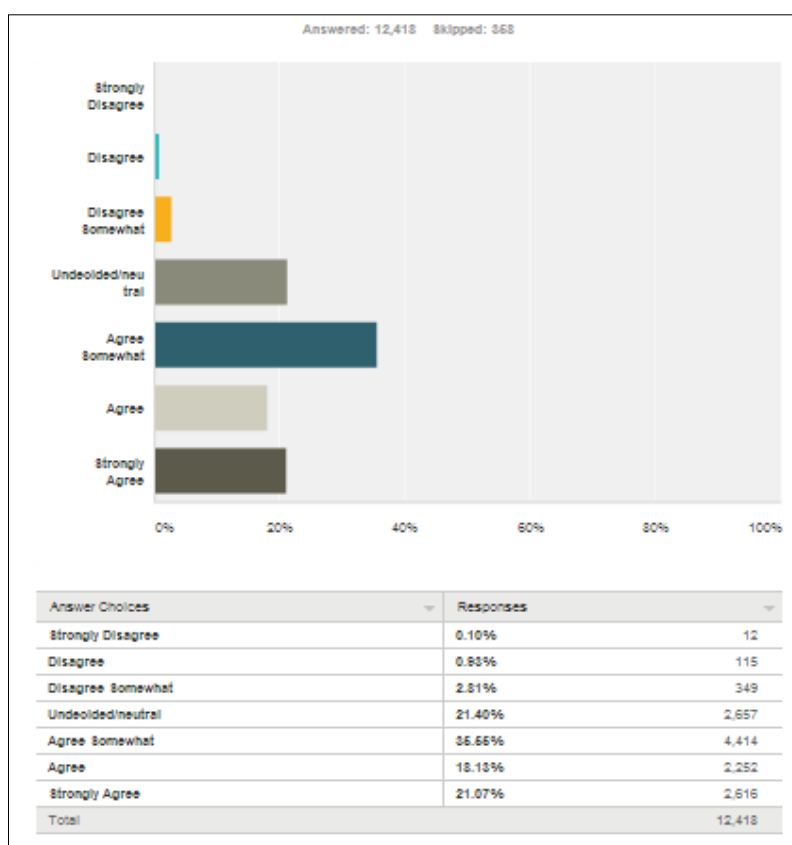
Diagram 55: Assurance, question 4

Linked to question 11, this question emphasises the overall accreditations and approvals held by the particular private college. A total of 12,418 respondents answered this question, with 358 respondents having skipped the question. According to the answers provided, a total of 3.75% disagreements were recorded. Out of which 0.10% strongly disagreed, 0.93% disagreed and 2.81%

disagreed somewhat. Another 21.40% have chosen a neutral answer, indicating that they have either not investigated the accreditation options of their private college or feel that it is not important to them. A majority of 74.85% have agreed with the statement, with 35.55% agreeing somewhat, 18.13% agreeing and 21.07% strongly agreeing that their private college indeed possesses the required organisational approvals.

The significant majority above shows that most private colleges indeed consider organisational accreditations as an important aspect of their activities, and students value such approvals, and look at those accreditations when choosing to study at a particular private college.

9.3.6 Assurance – 5th question

Statement:

I'm concerned as my College only offers a limited number of specialist qualifications, as I would prefer to have a wide variety of diverse qualifications to choose from.

Answer Choices	Responses	
Strongly Disagree	2.85%	354
Disagree	31.18%	3,871
Disagree Somewhat	24.13%	2,996
Undecided/neutral	20.22%	2,511
Agree Somewhat	12.49%	1,551
Agree	7.62%	946
Strongly Agree	1.49%	185
Total		12,417
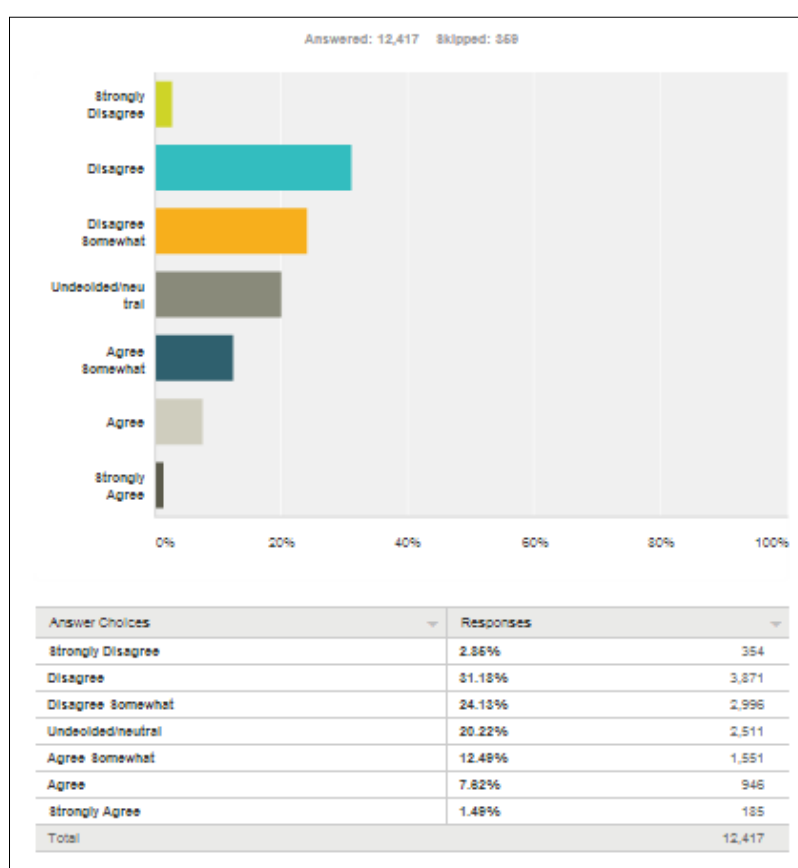
Diagram 56: Assurance, question 5

The total number of responses received for this question was 12,417, with 359 respondents choosing not to answer. After reversing the scores, out of the total responses received, 2.85% strongly agreed, 31.18% agreed and 24.13% agreed somewhat with the statement, therefore a total of 58.2% have agreed with the statement. However, a total of 15.8% disagreed with the statement. With 20.22% choosing a neutral answer, which shows that they have either not looked into the full qualification offer, or feel that the diverse qualification offer has no significance on their decision to study at a private college. Over 21% of participants agreed that they would like to see a large diverse qualification's portfolio at their private provider, with over 58% feeling that they would prefer a more specialised approach focusing on just a few qualifications.

The summary of findings of the five assurance questions are as follows:

9.3.7 Summary of findings for assurance

As shown from the table below, over 74% of participants agreed with the first four assurance statements, with 58% agreeing to the statement five. The numbers of neutrals remain consistent across all five statements at approximately 20%. The data collected still shows a clear acknowledgement of dimensions covered under assurance.

Question Number	Number of responses	Total % of: Agree Somewhat, Agree, Strongly agree	Total % of: Undecided/Neutral	Total % of: Disagree Somewhat, Disagree, Strongly disagree
11	12,452	75.06%	21.10%	3.82%
12	12,429	75.09%	20.73%	4.16%
13	12,421	74.41%	20.80%	4.77%
14	12,418	74.75%	21.40%	3.84%
15	12,417	58.16%	20.22%	21.60%

Table 92: Summary of assurance statements

The table below shows that mean scores of the five assurance dimensions with 12,424 participants answering each question, with 10.78% of participants choosing to strongly agree to statements, with 0.38% strongly disagreeing.

Question	Strongly disagree	Disagree	Disagree Somewhat	Neutral	Agree Somewhat	Agree	Strongly Agree	Total
11	13	117	346	2627	5131	2930	1285	12449
12	12	118	386	2577	5559	2567	1207	12426
13	16	133	444	2583	5946	2064	1232	12418
14	12	115	349	2657	4414	2252	2616	12415
15 - R	185	946	1551	2511	2996	3871	354	12414
Total	**238**	**1429**	**3076**	**12955**	**24046**	**13684**	**6694**	**62122**
Mean	**48**	**286**	**615**	**2591**	**4809**	**2737**	**1339**	**12424**
	0.38%	**2.30%**	**4.95%**	**20.85%**	**38.71%**	**22.03%**	**10.78%**	

Table 93: mean scores of assurance statements

The section below will now look at the correlation between statements, we will explore a variety of inferential statistics, employing a variety of demographical data gathered as part of the questionnaire.

Further, the respective correlation r values of the five assurance statements are as follows:

	Statement 1	Statement 2	Statement 3	Statement 4	Statement 5
Statement 1	1				
Statement 2	0.544867	1			
Statement 3	0.441228	0.386125	1		
Statement 4	0.563313	0.548488	0.505416	1	
Statement 5	0.327205	0.345084	0.33173	0.421906	1

Table 94: correlation r values of assurance statements

As seen from the correlation values above, this study can initially observe that all values are r > 0.3, which shows good correlation between statements. The minimum correlation is between questions 5 and 1 (0.3272), with the highest correlation between questions 1 and 4 (0.5633).

The section below shows the varying demographical trends observed for the five assurance statements;

	Overall Mean	Student status		t-Test: Two-Sample Assuming Unequal Variances (Home/EU and International)		
		Home and EU	International (non-EU)	T Stat score	t Critical two-tail score	H_0: μ_1 - μ_2 = 0 H_1: μ_1 - μ_2 ≠ 0
Statement 1	5.1428	5.1778	5.1123	3.5766	1.9601	T stat > t critical therefore Reject H_0
Statement 2	5.0989	5.0863	5.1122	(-1.4395)	1.9601	T stat < t critical therefore do not Reject H_0
Statement 3	5.0478	5.2179	4.8838	18.6384	1.9601	T stat > t critical therefore Reject H_0
Statement 4	5.3009	5.4569	5.1520	14.7217	1.9601	T stat > t critical therefore Reject H_0
Statement 5	4.6284	4.9207	4.3495	23.5488	1.9601	T stat > t critical therefore Reject H_0

Table 95: mean figure comparisons between overall and student status for assurance

As seen from the table above, the mean figure for home and EU students is relatively higher than the figure for international (non-EU) students. In particular, for statement 3, which refers to the further study options offered by the private college; home and EU students tend to agree more, when compared with non-EU students. The same can be applied to statement 5, which requires participants to judge the number of diverse study areas offered; home and EU students' mean figure is considerably higher than that of non-EU students.

However, a comparison of means using two sample t-tests gave scores of t-statistic figures consistently higher than t-critical value, for all statements apart from statement two, meaning that this research can reject the null hypothesis for those four statements. Therefore, the observed difference between the sample means is indeed convincing enough to say that the average scores of four assurance statements (out of five), between home/EU and international students differs significantly. At the same time, for statement two, the observed difference between the sample means (5.0863 - 5.1122) is not convincing enough to say that the agreement for assurance

statements of participants' private colleges when it comes to examination focus between home/EU and international students differs significantly.

	Overall Mean	Gender		t-Test: Two-Sample Assuming Unequal Variances (male and female)		
		Male	Female	T Stat score	t Critical two-tail score	H_0: $\mu_1 - \mu_2 = 0$ H_1: $\mu_1 - \mu_2 \neq 0$
Statement 1	5.1428	5.1266	5.1634	(- 1.2603)	1.9601	T stat < t critical therefore do not Reject H_0
Statement 2	5.0989	4.9712	5.2454	(- 8.4294)	1.9601	T stat < t critical therefore do not Reject H_0
Statement 3	5.0478	5.1587	4.9147	8.6917	1.9601	T stat > t critical therefore Reject H_0
Statement 4	5.3009	5.2615	5.3525	(- 2.7353)	1.9601	T stat < t critical therefore do not Reject H_0
Statement 5	4.6284	4.4808	4.8012	(- 7.4374)	1.9601	T stat < t critical therefore do not Reject H_0

Table 96: mean figure comparisons between gender for assurance

As seen from the table above, the mean figures for male and female participants are very similar for most of the statements apart from statements two and five. For example, male participants have given a lower mean score for statement two, which focuses on examination support. Furthermore female participants agreed with statement five, which focuses on diversity of qualifications offered. However, a comparison of means using two sample t-tests gave scores of t-statistic figure consistently lower, apart from statement three, than t-critical value, meaning that this research does not reject the null hypothesis for those four statements. Therefore, the observed difference between the sample means is not convincing enough to say that the average scores of four assurance statements (out of five) between male and female students differ significantly. At the same time, for statement three the observed difference between the sample means (5.1587 - 4.9147) is convincing enough to say that the agreement of participants' private colleges when it comes to opportunities for further studies differ significantly between male and female students.

	Overall Mean	Age					
		21 years and under	22 to 34 years	35 to 44 years	45 to 54 years	55 to 64 years	65 and over
Statement 1	5.1428	4.7091	4.9037	5.5882	5.1940	5.1212	4.2222
Statement 2	5.0989	4.7285	4.8805	5.5165	5.1069	5.0913	4.1666
Statement 3	5.0478	4.6800	4.8668	5.1630	5.0769	6.4318	4.5000
Statement 4	5.3009	4.7175	5.0905	5.6002	5.3005	6.5564	4.7222
Statement 5	4.6284	3.6418	4.1992	5.2361	4.9191	5.5863	3.8888
ANOVA							
F score		301.2152	382.0648	133.7184	71.1160	407.6926	1.2529
F critical value		2.3730	2.3723	2.3724	2.3727	2.3748	2.4790
$H_0: \mu_1 = \mu_2 = \mu_3$ H_1: at least one of the means is different.		F > F crit, reject the null hypothesis	F > F crit, reject the null hypothesis	F > F crit, reject the null hypothesis	F > F crit, reject the null hypothesis	F > F crit, reject the null hypothesis	F < F crit, do not reject the null hypothesis

Table 97: mean figure comparisons between age groups for assurance

As seen from the table above, the mean scores for age groups 21 and under, and 22 to 34 years are significantly below when compared to age groups 45 to 54 years, and 55 to 64 years. Further, the age group 55 to 64 years have strongly agreed with statements 3 and 4, meaning that this group specifically values the opportunity to study further qualifications, as well as the fact that their respective private college held all required approvals and accreditations. In particular, the mean scores for statement five, which focuses on the variety of qualifications offered, received lower scores from age groups 21 and under as well as 65 and over. In addition, as shown in ANOVA above, apart from age group 65 and over, this research can reject the null hypothesis for all other age groups. Further analysis using t test to determine those discrepancies are not required, as the overall ANOVA and t testing has been conducted for overall dimensions in 9.6 below.

	Overall Mean	Number of courses studied		t-Test: Two-Sample Assuming Unequal Variances (one and multiple courses)		
		One course	More than one course	T Stat score	t Critical two-tail score	$H_0: \mu_1 - \mu_2 = 0$ $H_1: \mu_1 - \mu_2 \neq 0$
Statement 1	5.1428	5.2601	5.0562	11.0503	1.9601	T stat > t critical therefore Reject H_0
Statement 2	5.0989	5.2475	4.9920	13.6131	1.9601	T stat > t critical therefore Reject H_0
Statement 3	5.0478	5.0514	5.0393	0.6676	1.9601	T stat < t critical therefore do not Reject H_0
Statement 4	5.3009	5.4625	5.1865	12.8393	1.9601	T stat > t critical therefore Reject H_0
Statement 5	4.6284	4.7150	4.5689	5.7275	1.9601	T stat > t critical therefore Reject H_0

Table 98: mean figure comparisons for number of courses studies for assurance

As shown in the table above, the relatively lower mean scores of the group that have studied multiple courses indicate they are growing higher levels of expectations for assurance attributes of private colleges. Both groups, gave relatively lower scores for statement five, which focuses on diversity of qualifications, meaning that these groups expect their private college to offer more qualification options.

A comparison of means using two sample t-tests gave scores of t-statistic figure consistently higher, apart from statement three, than t-critical value, meaning that this research rejects the null hypothesis for those four statements. Therefore the observed difference between the sample means is convincing enough to say that the average scores of four assurance statements (out of five), between students that have studied one qualification and multiple qualifications, differ significantly. At the same time for statement three, the observed difference between the sample means (5.0514 - 5.0393) is not convincing enough to say that the two participant groups differ significantly about agreement of participants' private colleges when it comes to opportunities for further studies, Finally, the table below shows the respective covariance between assurance questions.

	Statement 1	Statement 2	Statement 3	Statement 4	Statement 5
Statement 1	1				
Statement 2	0.563497	1			
Statement 3	0.458631	0.395158	1		
Statement 4	0.673012	0.645184	0.59766	1	
Statement 5	0.463952	0.481751	0.465557	0.68047	1

Table 99: covariance values of assurance statements

The covariance scores are all positive for between statements, which is yet again confirmation of the higher positive correlation amongst assurance statements. In particular the covariance between statements 1 and 4, 2 and 4 as well as 5 and 4 are above 0.6, meaning a higher positive correlation. The covariance between statements 3 and 2, show the lowest, albeit positive, covariance.

9.3.9 Order of priority – assurance

Finally, as shown in the table below, nearly 25% of the participants ranked assurance as the third most important dimension, behind flexible and market driven.

	1	2	3	4	5	Total	Average Ranking
Flexible	84.85% 10,492	7.42% 918	4.37% 541	2.09% 259	1.26% 156	12,366	4.72
Market Driven	3.49% 431	23.16% 2,864	61.09% 7,554	5.80% 717	6.47% 800	12,366	3.11
Assured	4.72% 584	7.94% 982	24.81% 3,068	60.53% 7,485	2.00% 247	12,366	2.53
Customer-Focussed	4.47% 553	58.61% 7,248	7.30% 903	25.75% 3,184	3.87% 478	12,366	3.34
Focussed-Practitioners	2.47% 306	2.86% 354	2.43% 300	5.83% 721	86.41% 10,685	12,366	1.29

Table 100: Ranking of dimensions - assurance

Further, as shown in the table above, assurance received an overall rank of 2.53 (out of five), falling towards the second half of the overall ranking.

9.3.10 Concluding discussion for assurance

All in all, the data gathered indicates acceptance and importance of assurance aspects for private colleges in students choosing to study. It is evident from the inferential statistics above that the mean scores given vary between age groups as well as gender. However, all scores in general are near or above four marks i.e., neutral point of the seven point Likert scale, meaning overall acceptance of statements.

Chapter 9D

Customer focus

9.4.1 Customer focus – Questions 16 to 19

Customer focus looks at how well the particular private college meets the changing needs of their students. Covered under this category are areas such as higher level of individual attention by having better student/lecturer contacts, via smaller class sizes, and how the college adapts to changing customer behaviours by adding more online resources that are accessible via laptops, tablet computers as well as smart mobile devices. Furthermore, areas such as the support provided in terms of registering with professional bodies, staff knowledge in the area, as well as the ease of communication with key staff members are also included. As described earlier, this dimension consists of four statements, where participants are required to indicate their level of agreement or disagreement.

9.4.2 Customer focus – 1st question

Statement:

The class sizes of my college are relatively small, so I've had plenty of opportunities to ask questions from my lecturers and tutors.

Answer Choices	Responses	
Strongly Disagree	0.19%	24
Disagree	1.10%	137
Disagree Somewhat	3.01%	374
Undecided/neutral	19.98%	2,480
Agree Somewhat	28.92%	3,590
Agree	32.40%	4,022
Strongly Agree	14.38%	1,783
Total		12,413
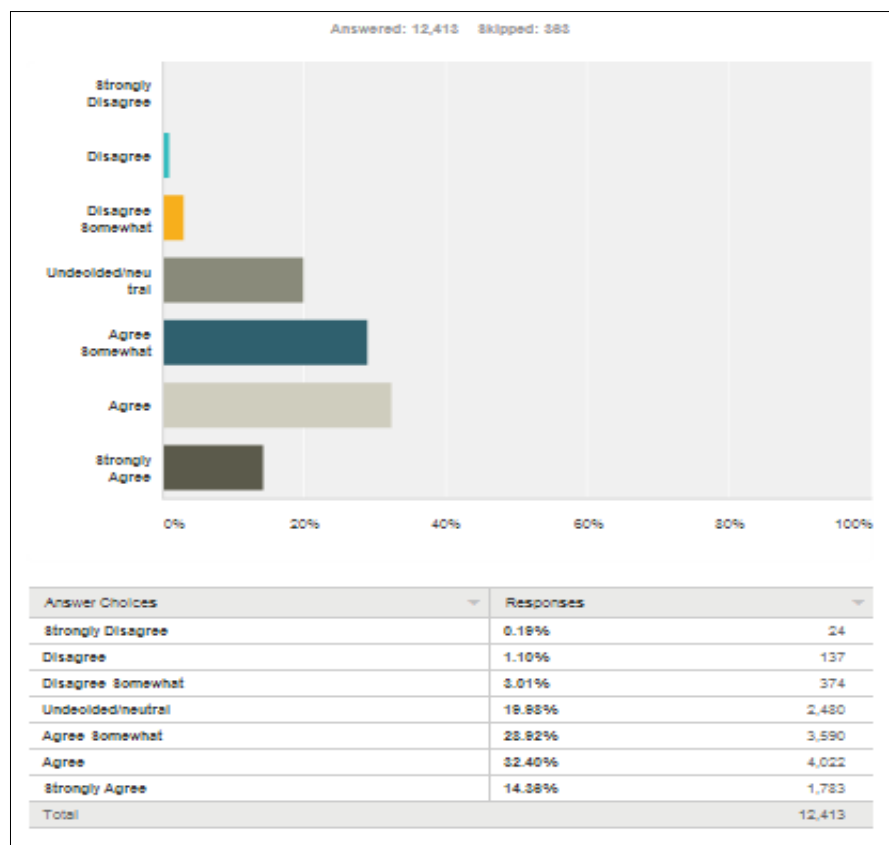
Diagram 57: Customer focus, question 1

A total of 12,413 participants answered with 363 choosing not to provide an answer. A total percentage of 3.86% chose to disagree with this statement with 0.19% strongly disagreeing, 1.10% disagreeing and 3.01% disagreeing somewhat. Another 19.98% have chosen a neutral answer, meaning that they see no difference in class sizes or asking questions from their lecturer at private and public institutions. However, a total of 71.99% have agreed with the statement, with 28.92% agreeing somewhat, 32.40% agreeing and 14.36% strongly agreeing.

The above therefore shows that the majority of participants felt that by studying at a private college in the UK, and having smaller class sizes, made it easier for them to communicate with their lecturers and tutors.

9.4.3 customer focus – 2nd question

Statement:

I was given access to study facilities such as online resources, so I can study even when I'm not in the College.

Answer Choices	Responses	
Strongly Disagree	0.15%	18
Disagree	1.17%	145
Disagree Somewhat	3.71%	460
Undecided/neutral	20.04%	2,486
Agree Somewhat	51.32%	6,367
Agree	17.83%	2,212
Strongly Agree	5.78%	717
Total		12,407
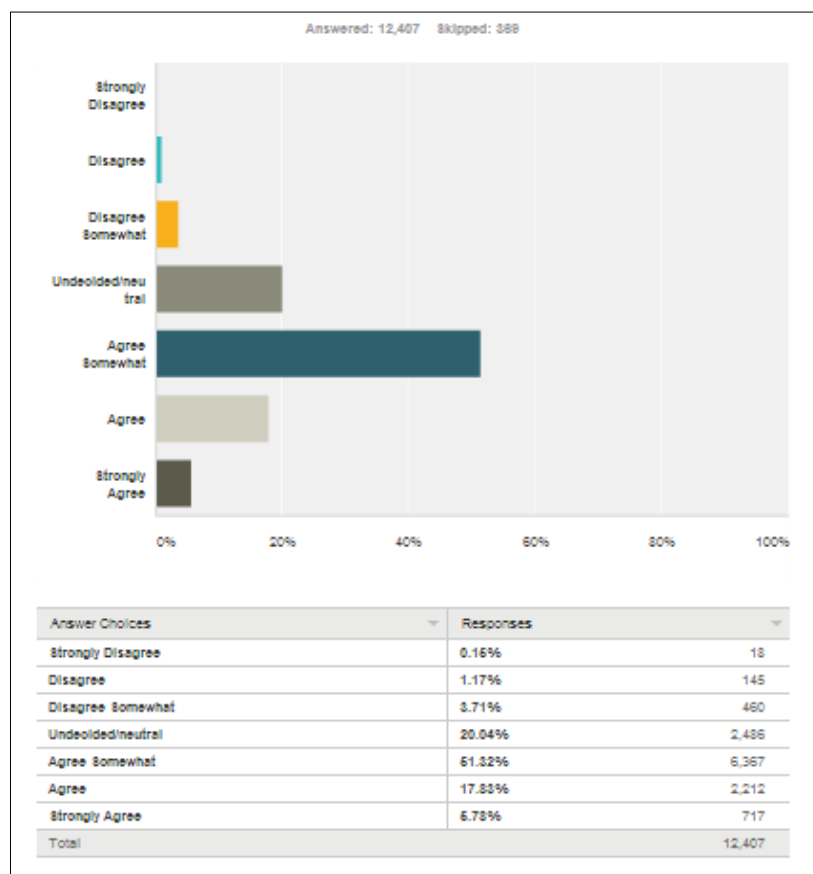
Diagram 58: Customer focus, question 2

A total of 12,407 participants attempted this question with 389 choosing not to answer. A total of 5.04% of the participants chose to disagree with this statement with 0.15% strongly disagreeing, 1.17% disagreeing and 3.71% disagreeing somewhat, meaning these participants believed that their chosen private provider failed to integrate IT as a part of their study experience, as per the expectations of the student. 20.04% chose a neutral answer, meaning that they don't see any significant difference of IT integration between private and public providers in the UK. 75.46% have agreed with the statement with 51.32% agreeing somewhat, 17.83% agreeing and 5.78% strongly agreeing. A large majority of participants agreed that their private college effectively integrated IT into their studies and made the learning experience more accessible.

9.4.4 customer focus – 3rd question

Statement:

I can contact both academic and non-academic staff members via email, Skype or Facebook or on mobile.

Answer Choices	Responses	
Strongly Disagree	0.38%	47
Disagree	1.67%	207
Disagree Somewhat	3.91%	485
Undecided/neutral	20.08%	2,491
Agree Somewhat	27.90%	3,461
Agree	39.05%	4,844
Strongly Agree	7.00%	869
Total		12,406
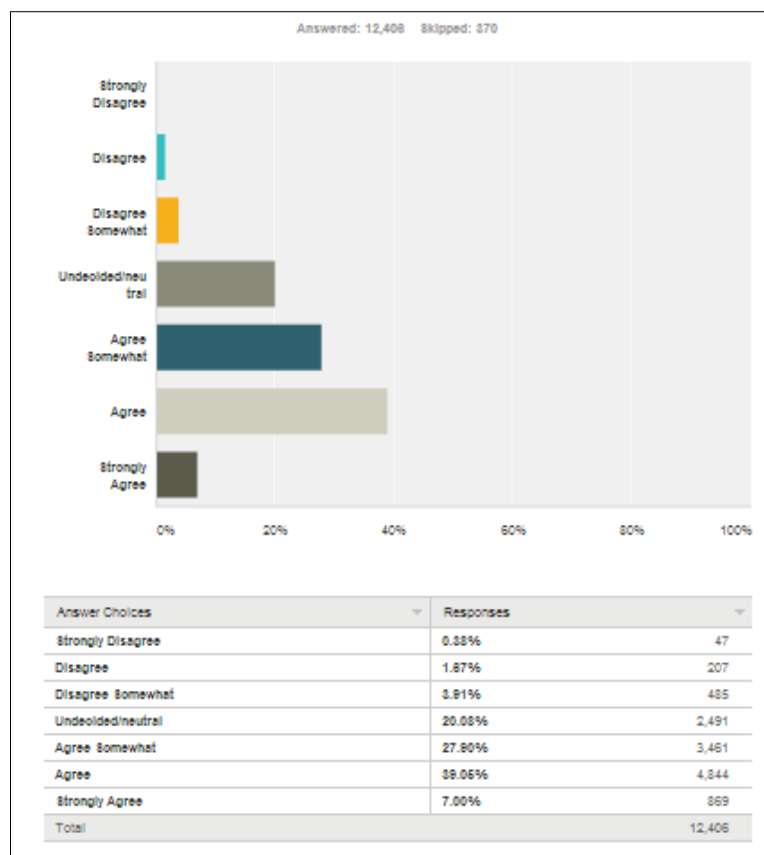
Diagram 59: Customer focus, question 3

A total of 12,406 participants attempted this question with 370 choosing not to answer. 5.96% of participants chose to disagree with the statement with 20.08% choosing a neutral answer, as they did not see a difference between the use of communication technologies between private and public colleges. However, a majority of 73.95% agreed with the statement, and confirmed that their private college incorporated day to day computer programs such as Skype and Facebook into their staff communications, with 7% strongly agreeing, 39.05% agreeing and 27.90% agreeing somewhat to the statement.

The above shows that private colleges have been pro-active compared with their state counterparts in adopting day to day computer software in their processes and systems, and in turn incorporating these into students' learning experiences.

9.4.5 customer focus – 4th question

Statement:

My educational institution offers assistance in registering with my qualification awarding body.

Answer Choices	Responses	
Strongly Disagree	0.11%	14
Disagree	1.19%	147
Disagree Somewhat	3.24%	402
Undecided/neutral	20.39%	2,528
Agree Somewhat	36.99%	4,587
Agree	25.08%	3,110
Strongly Agree	12.98%	1,610
Total		12,401
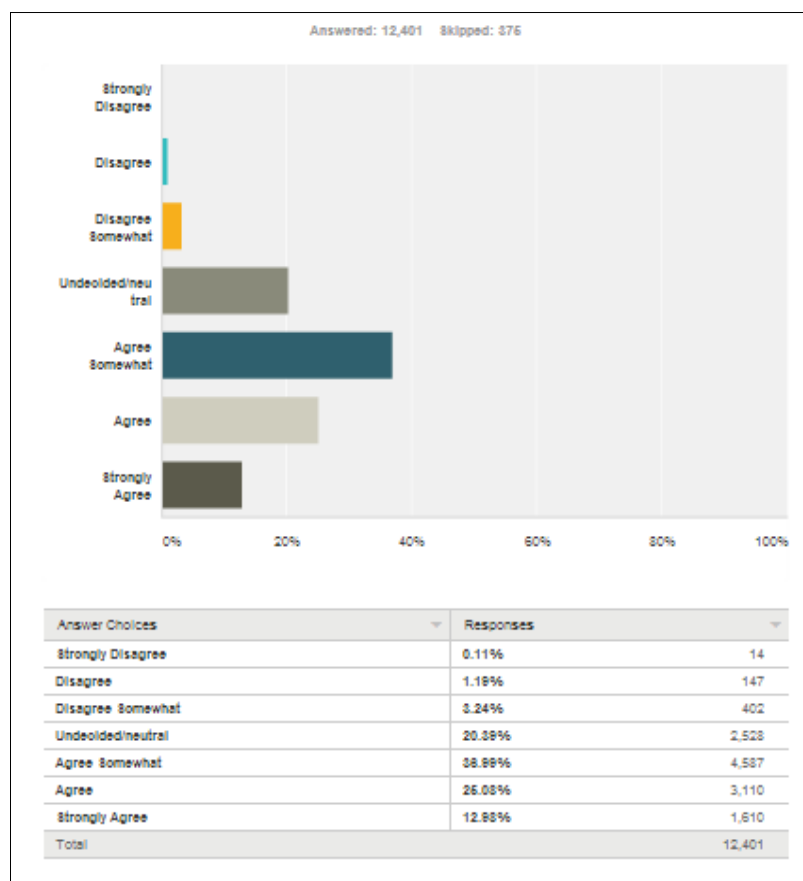
Diagram 60: Customer focus, question 4

The total number of responses received for this statement was 12,401, with 375 respondents choosing not to answer. Out of the total responses received, 0.11% strongly disagreed, 1.19% disagreed and 3.24% disagreed somewhat with the statement, making a total of 4.54% of the participants disagreeing with the statement. A further 20.39% have chosen a neutral answer, meaning that they did not feel that their private college's assistance distinguished it with what they would expect to receive at a public institution. However, a majority of 75% agreed that their private college provided them with assistance and support in registering with their awarding bodies, and valued that support, with 12.98% strongly agreeing with the statement, and 36.99% agreeing somewhat and 25.08% agreeing.

The above shows that private institutions take the additional student support aspects as an important activity as well as hiring specialist staff members that can relate to students' own experiences. In turn, students agreed and supported this initiative by valuing the contribution made by these staff members in supporting them with their registrations and memberships and so on.

The summary of findings of the four customer focus questions are as follows:

9.4.6 summary of findings for customer focus

As shown below, over 73% of participants have chosen to agree with the four customer focus statements, with an average of fewer than 5% choosing to disagree.

Question Number	Number of responses	Total % of: Agree Somewhat, Agree, Strongly agree	Total % of: Undecided/Neutral	Total % of: Disagree Somewhat, Disagree, Strongly disagree
16	12,413	75.68%	19.98%	4.30%
17	12,407	74.93%	20.04%	5.03%
18	12,406	73.05%	20.08%	5.96%
19	12,401	75.05%	20.39%	4.54%

Table 101: Summary of customer focus statements

The following table shows an average of 12,404 participants attempting each of the four customer focus questions, with 10.03% on average strongly agreeing with the statements, and 0.21% strongly disagreeing. Approximately 20% of participants chose neutral answers.

Question	Strongly disagree	Disagree	Disagree Somewhat	Neutral	Agree Somewhat	Agree	Strongly Agree	Total
16	24	137	374	2480	3590	4022	1783	12410
17	18	145	460	2486	6367	2212	717	12405
18	47	207	485	2491	3461	4844	869	12404
19	14	147	402	2528	4587	3110	1610	12398
Total	**103**	**636**	**1721**	**9985**	**18005**	**14188**	**4979**	**49617**
Mean	**26**	**159**	**430**	**2496**	**4501**	**3547**	**1245**	**12404**
	0.21%	**1.28%**	**3.47%**	**20.12%**	**36.29%**	**28.60%**	**10.03%**	

Table 102: mean scores of customer focus statements

Further, the respective correlation r values of the four customer focus statements are as follows:

	Statement 1	Statement 2	Statement 3	Statement 4
Statement 1	1			
Statement 2	0.371181	1		
Statement 3	0.498867	0.454306	1	
Statement 4	0.528246	0.444371	0.448079	1

Table 103: correlation r values of customer focus statements

As seen from the correlation values above, this study can initially observe that all values are r > 0.3, which shows good correlation between statements. The minimum correlation is between statements 2 and 1 (0.3711), with the highest correlation between questions 4 and 1 (0.5282).

9.4.7 Inferential statistics – customer focus

The section below shows the varying demographical trends observed for the four customer focus statements;

	Overall Mean	Student status		t-Test: Two-Sample Assuming Unequal Variances (Home/EU and International)		
		Home and EU	International (non-EU)	T Stat score	t Critical two-tail score	H_0: $\mu_1 - \mu_2 = 0$ H_1: $\mu_1 - \mu_2 \neq 0$
Statement 1	5.3104	5.6579	4.9762	35.5096	1.9601	T stat > t critical therefore Reject H_0
Statement 2	4.9784	5.0714	4.8892	10.8634	1.9601	T stat > t critical therefore Reject H_0
Statement 3	5.1864	5.4531	4.9291	27.4260	1.9601	T stat > t critical therefore Reject H_0
Statement 4	5.2017	5.4132	4.9990	21.5520	1.9601	T stat > t critical therefore Reject H_0

Table 104: mean figure comparisons between overall and student status for customer focus

As seen from the table above, the mean figure for home and EU students is consistently higher than the figure for international (non-EU) students across all four statements. Even though both mean figures show agreeable results i.e., above the neutral score of four, the home and EU students tend to agree strongly with the statements, when compared with non-EU students, specifically for statement one, where participants were asked their views on small class sizes and better tutor interaction.

However, a comparison of means using two sample t-tests gave scores of t-statistic figure consistently higher than t-critical value, meaning that this research can reject the null hypothesis. Therefore, the observed difference between the sample means is indeed convincing enough to say that the average scores of assurance statements between home/EU and international students differ significantly.

	Overall Mean	Gender		t-Test: Two-Sample Assuming Unequal Variances (male and female)		
		Male	Female	T Stat score	t Critical two-tail score	$H_0: \mu_1 - \mu_2 = 0$ $H_1: \mu_1 - \mu_2 \neq 0$
Statement 1	5.3104	5.1682	5.4759	8.6306	1.9601	T stat > t critical therefore Reject H_0
Statement 2	4.9784	4.9967	4.9535	(- 1.6757)	1.9601	T stat < t critical therefore do not Reject H_0
Statement 3	5.1864	5.2729	5.0901	(- 5.6239)	1.9601	T stat < t critical therefore do not Reject H_0
Statement 4	5.2017	5.0442	5.3734	9.1802	1.9601	T stat > t critical therefore Reject H_0

Table 105: mean figure comparisons between gender for customer focus

As seen from the table above, the mean figures for male and female participants are very similar, across all statements. Male participants have a higher agreement level for statements two and three with female participants agreeing strongly with statements one and four. However, a comparison of means using two sample t-tests gave scores of t-statistic figures higher than t-critical value, for statements one and four, meaning that this research can reject the null hypothesis. Therefore, the observed difference between the sample means for statements one and four, which refers to class sizes and administrative assistance, are indeed convincing enough to say that the average scores of the statements one and four between male and female students differ significantly.

On the other hand, the t-statistic figure is lower than t-critical value, for statements two and three, meaning that this research does not reject the null hypothesis. Therefore, the observed difference between the sample means for statements two and three, which refers to access to staff members and online facilities provided, are not convincing enough to say that the average scores of statements two and three between male and female students differ significantly.

	Overall Mean	Age					
		21 years and under	22 to 34 years	35 to 44 years	45 to 54 years	55 to 64 years	65 and over
Statement 1	5.3104	4.6839	5.0488	5.6671	5.7439	5.1644	4.6666
Statement 2	4.9784	4.6638	4.7755	5.2852	5.0663	5.0581	4.6111
Statement 3	5.1864	4.6134	4.9841	5.2811	5.6718	5.8704	4.7222
Statement 4	5.2017	4.7291	4.8952	5.8431	5.0692	5.1262	4.8888
ANOVA							
F score		3.0876	46.8511	295.1171	582.0491	258.1385	0.1550
F critical value		2.6063	2.6054	2.6055	2.6059	2.6086	2.7395
H_0: $\mu_1 = \mu_2 = \mu_3$ H_1: at least one of the means is different.		F > F crit, reject the null hypothesis	F > F crit, reject the null hypothesis	F > F crit, reject the null hypothesis	F > F crit, reject the null hypothesis	F > F crit, reject the null hypothesis	F < F crit, do not reject the null hypothesis

Table 106: mean figure comparisons between age groups for customer focus

As seen from the table above, the mean scores for age group 21 and under, is below when compared with other age groups. In particular, the mean figure of age groups 35 to 44, 45 to 54, and 55 to 64 are very similar. Further the mean scores of the age group 65 and over, also indicates a lower agreement, near to the neutral point of four. In addition the ANOVA scores show that apart from age group 65 and over, this research can reject the null hypothesis for all other groups, meaning a difference of at least one mean score within the group.

However, further analysis using t tests was not deemed necessary, as the overall ANOVA and t test analysis of dimensions have been conducted in 9.6 below.

	Overall Mean	Number of courses studied		t-Test: Two-Sample Assuming Unequal Variances (one and multiple courses)		
		One course	More than one course	T Stat score	t Critical two-tail score	$H_0: \mu_1 - \mu_2 = 0$ $H_1: \mu_1 - \mu_2 \neq 0$
Statement 1	5.3104	5.4588	5.2031	(-12.3844)	1.9601	T stat < t critical therefore do not Reject H_0
Statement 2	4.9784	4.9732	4.9808	0.4445	1.9601	T stat < t critical therefore do not Reject H_0
Statement 3	5.1864	5.1993	5.1784	(-1.0415)	1.9601	T stat < t critical therefore do not Reject H_0
Statement 4	5.2017	5.5788	4.9180	(-33.4937)	1.9601	T stat > t critical therefore Reject H_0

Table 107: mean figure comparisons for number of courses studies for customer focus

The table above shows the mean figures for participants that have only studied one qualification with a private college against those participants that have studied multiple qualifications for the customer focus statements. The relatively lower mean scores of the group that have studied multiple courses indicate they are growing a higher level of expectations for customer service attributes of private colleges, similar to findings of the previous dimensions. A comparison of means using two sample t-tests gave scores of t-statistic figures consistently lower than t-critical value, meaning that this research does not reject the null hypothesis for the four customer focus statements for the two participant groups. Therefore, the observed difference between the sample means is not convincing enough to say that the average scores of customer focus statements between students that have studied one qualification and multiple qualifications differ significantly.

Finally, the table below shows the respective covariance between customer focus questions.

	Statement 1	Statement 2	Statement 3	Statement 4
Statement 1	1			
Statement 2	0.391201	1		
Statement 3	0.612908	0.469318	1	
Statement 4	0.644649	0.456014	0.535926	1

Table 108: covariance values of customer focus statements

The covariance is all positive for between statements, which is yet again confirmation of the higher positive correlation amongst customer focus statements. In particular the covariance between statements 1 and 3 (0.6129), as well as 4 and 1 (0.6446) is above 0.6, meaning a higher positive

correlation. The covariance between statements 1 and 2 (0.3912), shows the lowest, albeit positive, covariance.

9.4.8 Order of priority – customer focus

Finally, as shown in the table below, nearly 26% of the participants ranked customer focus as the fourth important dimension, behind flexible, market driven and assured.

	1	2	3	4	5	Total	Average Ranking
Flexible	84.85% 10,492	7.42% 918	4.37% 541	2.09% 259	1.26% 156	12,366	4.72
Market Driven	3.49% 431	23.16% 2,864	61.09% 7,554	5.80% 717	6.47% 800	12,366	3.11
Assured	4.72% 584	7.94% 982	24.81% 3,068	60.53% 7,485	2.00% 247	12,366	2.53
Customer-Focussed	4.47% 553	58.61% 7,248	7.30% 903	25.75% 3,184	3.87% 478	12,366	3.34
Focussed-Practitioners	2.47% 306	2.86% 354	2.43% 300	5.83% 721	86.41% 10,685	12,366	1.29

Table 109: Ranking of dimensions – customer focus

Further, as shown in the table above, customer focus received an overall rank of 3.34 (out of five), making it the second most important dimension on the basis of average ranking, surpassing market driven and assurance.

9.4.9 Concluding discussion for customer focus

The data gathered indicates strong acceptance and importance of customer focus aspects for private colleges in students choosing to study. Customer focus aspects are indeed linked with aspects of market driven and flexibility, and therefore share similar trends in data. However, the overall importance rank data shows customer focus second after flexible, meaning the strong importance put on this particular dimension by the participants.

Chapter 9E

Focus practitioners

Focus practitioners refers to the relevant experience and specialist knowledge held by staff members within private colleges in the UK. During the focus group discussions, many students highlighted the importance of lecturers sharing their own experiences to explain theories and concepts. Having experienced professionals/practitioners, as opposed to pure academics, is valued by students, as they see it as a lot more beneficial to their careers.

9.5.2 Focus practitioners – 1st question

Statement:

My lecturers and tutors have a good level of practical work experience and they always take their own work experience to explain difficult theories.

Answered: 12,396   Skipped: 380

Answer Choices	Responses	
Strongly Disagree	0.09%	11
Disagree	0.97%	120
Disagree Somewhat	2.56%	317
Undecided/neutral	20.60%	2,553
Agree Somewhat	43.45%	5,386
Agree	23.98%	2,973
Strongly Agree	8.33%	1,033
Total		12,396

Diagram 61: Focus practitioners, question 1

A total of 12,396 participants attempted this question with 380 respondents choosing not to answer. Out of the total responses received, 0.09% strongly disagreed, 0.97% disagreed and 2.56% disagreed somewhat with the statement making total disagreements at 3.62%. A total of 20.60% have chosen a neutral answer, meaning that those participants did not see a difference between the respective

experiences of lecturers' at public and private institutions. However, 75.76% have agreed with the statement with 43.45% somewhat agreeing, 23.98% agreeing and 8.33% strongly agreeing, meaning that these participants felt that having lecturers with practical work experience is a valuable aspect of studying at a private college in the UK.

9.5.3 Focus practitioners – 2nd question

Statement:

I'm concerned that my educational institution does not have a wider range of research interests, such as Universities.

Answer Choices	Responses	
Strongly Disagree	1.91%	237
Disagree	30.95%	3,835
Disagree Somewhat	25.21%	3,124
Undecided/neutral	20.60%	2,552
Agree Somewhat	12.85%	1,592
Agree	7.00%	867
Strongly Agree	1.45%	180
Total		12,390
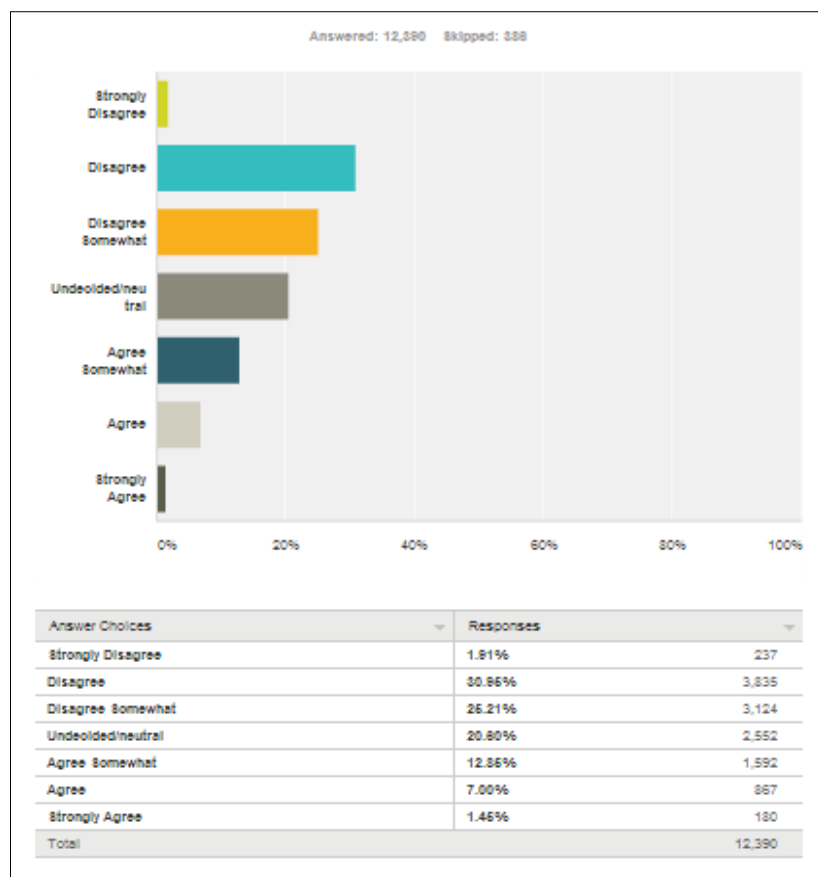
Diagram 62: Focus practitioners, question 2

A total of 12,390 participants attempted this question with 390 choosing not to answer. After reversing scores, 21.3% of the participants chose to disagree with the statement, preferring that their private college would have a research profile and interest. A further 20.60% chose a neutral answer, meaning that they are either not interested in the research activities at all, or that they believe there is no real difference in this area between private and public providers. However,

58.07% of the participants agreed with the statement, showing that they are not concerned with the lack of research activities at their chosen private college.

9.5.4 Focus practitioners – 3rd question

Statement:

It is easy for me to contact key personnel in the College if I have any issues or complaints, and I do not necessarily have to make appointments in advance to meet most of the staff.

Answered: 12,387   Skipped: 389

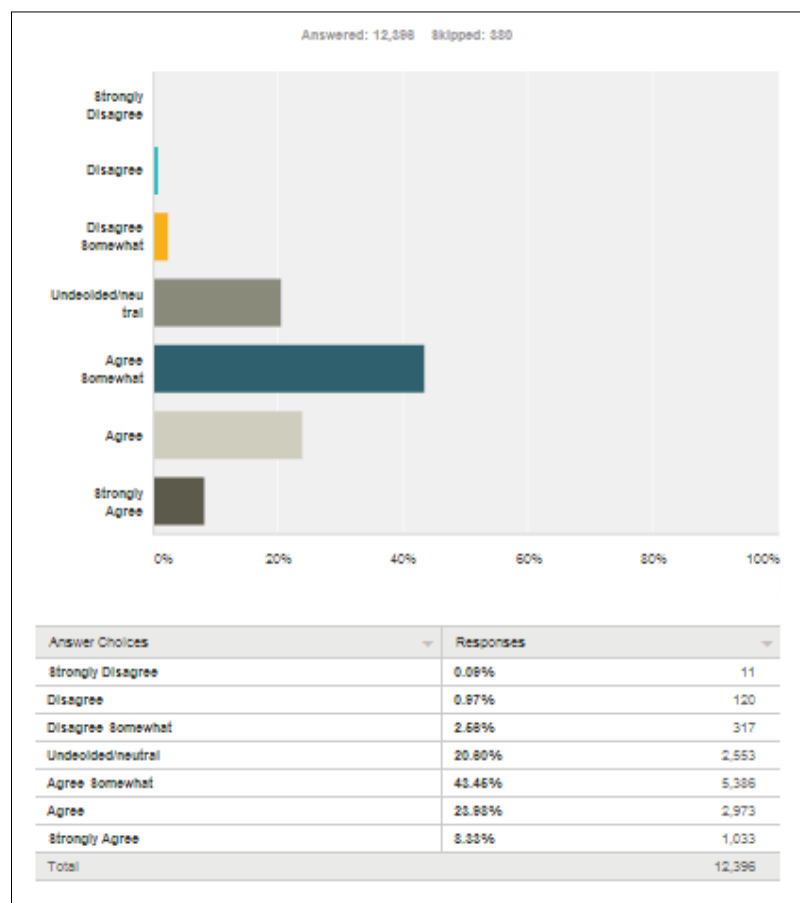| Answer Choices	Responses	
Strongly Disagree	0.15%	18
Disagree	1.03%	127
Disagree Somewhat	3.56%	441
Undecided/neutral	20.46%	2,534
Agree Somewhat	29.78%	3,689
Agree	31.21%	3,866
Strongly Agree	13.80%	1,709
Total		12,387
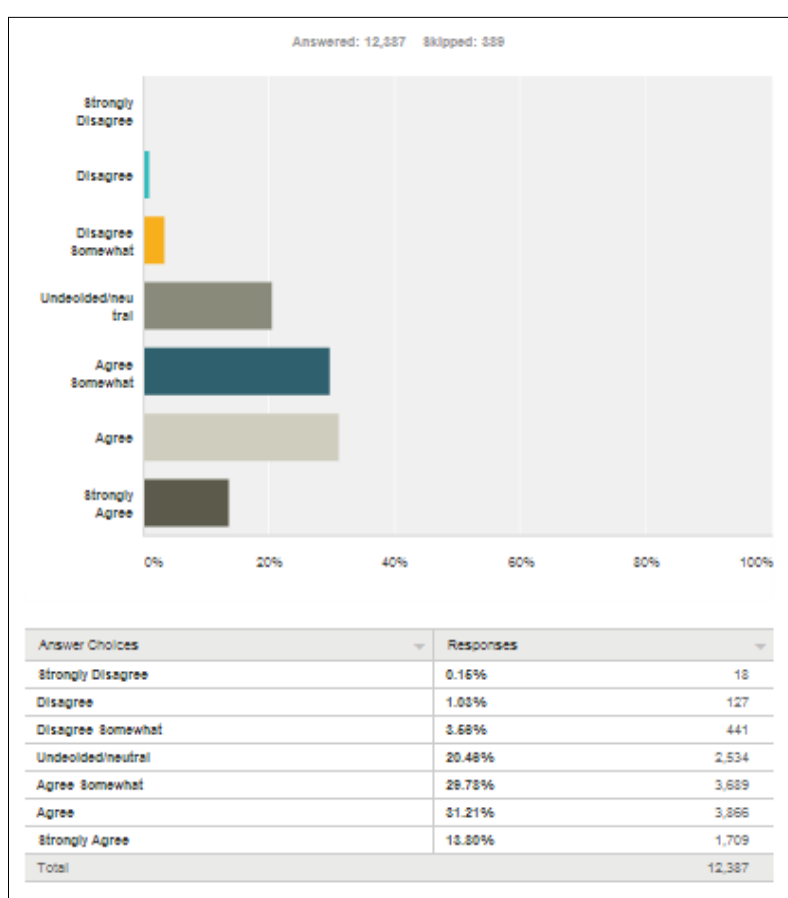
Diagram 63: Focus practitioners, question 3

A total of 12,387 participants attempted this question, with 389 choosing not to answer. Out of the total responses received, 0.15% strongly disagreed, 1.03% disagreed and 3.56% disagreed, which makes a total of 4.74% participants disagreeing with the statement. However a majority of 73.35% agreed with the statement, with 29.14% somewhat agreeing, 31.21% agreeing and 13% strongly agreeing that accessing key staff members at private colleges is simpler. Furthermore, 20.46% of the participants felt that there is no difference between private and public institutions, when approaching key personnel.

<u>9.5.5 Focus practitioners – 4th question (consists of two questions)</u>

Question 23 refers to general advice and assistance given to students at private colleges. During focus group discussions these general requirements vary significantly with the origin of students, such as whether they are home or EU students or international students. Therefore when designing the survey and prior to answering the last focus practitioner statement, participants were asked to choose their country of origin.

What is your student status?

Answered: 12,379   Skipped: 397

Answer Choices		Responses	
I am a: Home -EU student or a non-visa student		48.96%	6,060
I am an International student requiring a visa to study in the UK		51.06%	6,319
Total			12,379
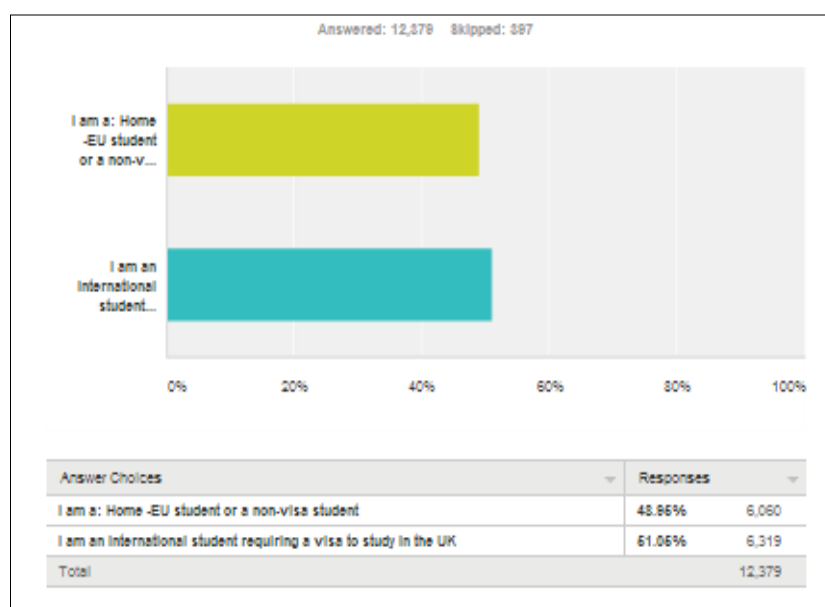
Diagram 64: Focus practitioners, student status

A total of 12,379 participants answered this question with 397 choosing not to answer. Out of the total responses, 6,060 participants' were from an EU country and 6,319 were from non-EU countries, therefore requiring a visa to study in the UK. On the basis of the answer given to this question, participants' were then directed to either question 24, for non-EU students, or question 25, for EU students.

Statement:

For international students: I was given advice and guidance on how to apply for my student visas.
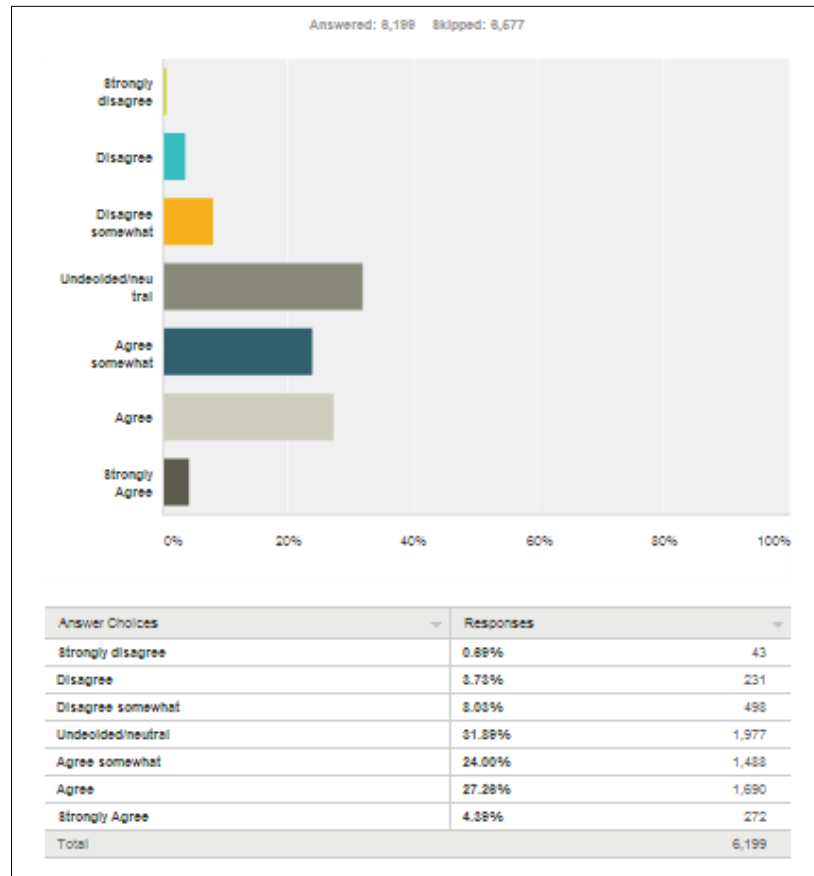
Diagram 65: Focus practitioners, question 4 (international students)

A total of 12.45% of non-EU students have disagreed with the statement, with 0.69% strongly disagreeing, 3.73% disagreeing and 8.03% disagreeing somewhat, meaning that they are unhappy with the visa assistance provided by staff and agents of their chosen private college. Furthermore, 31.83% chose a neutral answer, as they felt the support provided by private colleges in this area does not significantly differ to that provided by public institutions.

However, 55.65% of non-EU students requiring a visa agreed that they have received valuable advice and support from their respective private college, with 24% agreeing somewhat, 27.26% agreed and 4.39% strongly agreed with the statement.

Statement:

For Home students: I was given assistance on my funding application or offered flexible payment terms.

Answered: 6,176   Skipped: 6,800

Answer Choices	Responses	
Strongly disagree	0.49%	30
Disagree	1.57%	97
Disagree somewhat	3.19%	197
Undecided/neutral	9.31%	575
Agree somewhat	57.50%	3,551
Agree	25.57%	1,579
Strongly Agree	2.38%	147
Total		6,176
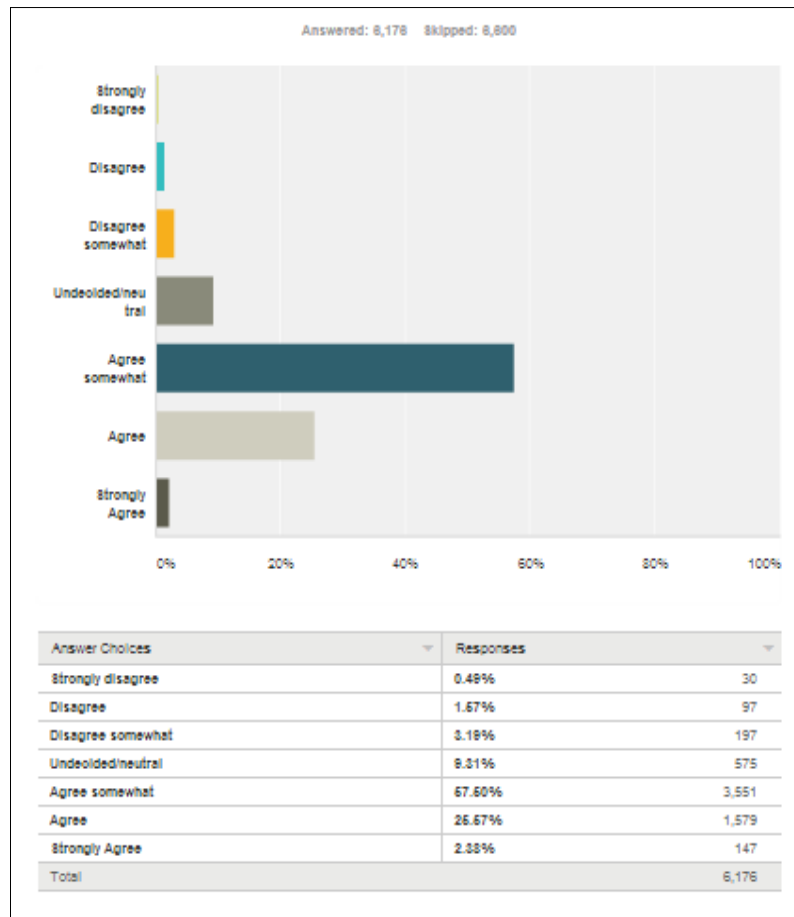
Diagram 66: Focus practitioners, question 4 (Home and EU students)

A total of 5.60% of the EU participants chose to disagree with the statement, meaning that the support received from their private college was below expectations. 9.31% have chosen a neutral option, meaning that either they have not used this service or felt that there is no difference between the assistance provided by private and public institutions. However, a massive majority of 95.35% agreed with this statement, with 67.50% agreed somewhat, 25.57% agreed and 2.28% strongly agreed, showing that their private college indeed provided them with sufficient support, advice and assistance with their funding application.

The summary of findings for focus practitioners questions are as follows:

9.5.6 summary of findings for focus practitioners

The following table shows a summary of the findings of the four statements of focus practitioners.

Question Number	Number of responses	Total % of: Agree Somewhat, Agree, Strongly agree	Total % of: Undecided/Neutral	Total % of: Disagree Somewhat, Disagree, Strongly disagree
20	12,396	75.76%	20.60%	3.62%
21	12,390	58.07%	20.60%	21.30%
22	12,387	74.79%	20.46%	4.74%
23 (24/25)	12.320	70.39%	20.71%	8.90%

Table 110: Summary of focus practitioners statements

The table below illustrates mean figures of the statements, with an average of 12,360 participants completing each statement.

Question	Strongly disagree	Disagree	Disagree Somewhat	Neutral	Agree Somewhat	Agree	Strongly Agree	Total
20	11	120	317	2553	5386	2973	1033	12393
21 - R	180	867	1592	2552	3124	3835	237	12387
22	18	127	441	2534	3589	3866	1709	12284
23 (24 + 25)	73	328	695	2552	5039	3269	419	12375
Total	**282**	**1442**	**3045**	**10191**	**17138**	**13943**	**3398**	**49439**
Mean	**71**	**361**	**761**	**2548**	**4285**	**3486**	**850**	**12360**
	0.57%	2.92%	6.16%	20.61%	34.66%	28.20%	6.87%	
24	43	231	498	1977	1488	1690	272	
25	30	97	197	575	3551	1579	147	

Table 111: mean scores of focus practitioners statements

Overall, nearly 70% of participants have chosen positive answers with 20% choosing a neutral answer indicating that their respective private college met their expectations. Furthermore

approximately 10% of participants have chosen disagreeing statements. The respective correlation r values of the four focus practitioners statements are as follows:

	Statement 1	Statement 2	Statement 3	Statement 4
Statement 1	1			
Statement 2	0.445791	1		
Statement 3	0.393393	0.436521	1	
Statement 4	0.281161	0.322527	0.388375	1

Table 112: correlation r values of focus practitioners statements

As seen from the correlation values above, this study can initially observe that values are r > 0.3, apart from statement 4 and 1, which is 0.2811. The highest correlation is between statements 1 and 1, with an r value of 0.4457.

9.5.7 Inferential statistics – Focus practitioners

The section below shows the varying demographical trends observed for the four focus practitioners statements;

	Overall Mean	Student status		t-Test: Two-Sample Assuming Unequal Variances (Home/EU and International)		
		Home and EU	International (non-EU)	T Stat score	t Critical two-tail score	H_0: μ_1 - μ_2 = 0 H_1: μ_1 - μ_2 ≠ 0
Statement 1	5.1168	5.2209	5.0164	(-11.6609)	1.9601	T stat < t critical therefore do not Reject H_0
Statement 2	4.3532	4.7067	4.0140	(-27.4236)	1.9601	T stat < t critical therefore do not Reject H_0
Statement 3	5.2757	5.6785	4.8889	(-41.9277)	1.9601	T stat < t critical therefore do not Reject H_0
Statement 4	4.7349	5.0846	4.7425	1.2129	1.9601	T stat < t critical therefore do not Reject H_0

Table 113: mean figure comparisons between overall and student status for focus practitioners

As seen from the table above, the mean figure for home and EU students are relatively higher than the figure for international (non-EU) students. The mean figures obtained for statement 2, which

refs to the academic and research activities, received a relatively lower score in comparison with the other three statements. However, a comparison of means using two sample t-tests gave scores of t-statistic figures consistently lower than t-critical value, meaning that this research does not reject the null hypothesis. Therefore, the observed difference between the sample means is not convincing enough to say that the average scores of focus practitioners statements between home/EU and international students differ significantly.

	Overall Mean	Gender		t-Test: Two-Sample Assuming Unequal Variances (male and female)		
		Male	Female	T Stat score	t Critical two-tail score	$H_0: \mu_1 - \mu_2 = 0$ $H_1: \mu_1 - \mu_2 \neq 0$
Statement 1	5.1168	5.1119	5.1235	(- 0.4280)	1.9601	T stat < t critical therefore do not Reject H_0
Statement 2	4.3532	4.3579	4.3497	0.1517	1.9601	T stat < t critical therefore do not Reject H_0
Statement 3	5.2757	5.4068	5.1317	8.5954	1.9601	T stat > t critical therefore Reject H_0
Statement 4	4.7349	4.8302	5.0032	(- 7.3597)	1.9601	T stat < t critical therefore do not Reject H_0

Table 114: mean figure comparisons between gender for focus practitioners

As seen from the table above, the mean figure for male and female participants are very similar, with female participants agreeing marginally more for statements one and four. There are no significant variations between the overall mean figure and the male and female mean scores. However, a comparison of means using two sample t-tests gave scores of t-statistic figure higher than t-critical value, for statements two and three, meaning that this research can reject the null hypothesis. Therefore, the observed difference between the sample means for statements two and three, which refers to staff contacts and research interests, are indeed convincing enough to say that the average scores of statements one and four, between male and female students, differs significantly. On the other hand, the t-statistic figure is lower than t-critical value, for statements one and four, meaning that this research does not reject the null hypothesis. Therefore, the observed difference between the sample means for statements one and four, which refers to the practical experience of lecturing staff members and study advice provided, are not convincing enough to say that the average scores of statements one and four between male and female students differ significantly.

	Overall Mean	Age					
		21 years and under	22 to 34 years	35 to 44 years	45 to 54 years	55 to 64 years	65 and over
Statement 1	5.1168	4.7485	4.8310	5.4417	5.2279	5.7890	4.3333
Statement 2	4.3532	3.2003	3.8266	4.9615	4.9085	5.5199	3.3888
Statement 3	5.2757	4.6489	4.7904	5.4696	6.2516	5.8554	4.8888
Statement 4	4.7349	4.3689	4.5656	5.4627	5.0251	5.0249	4.3333
ANOVA							
F score		505.8014	594.6046	174.5533	756.7361	113.6215	3.0163
F critical value		2.3733	2.3724	2.3725	2.3730	2.3756	2.5086
H_0: $\mu_1 = \mu_2 = \mu_3$ H_1: at least one of the means is different.		F > F crit, reject the null hypothesis	F > F crit, reject the null hypothesis	F > F crit, reject the null hypothesis	F > F crit, reject the null hypothesis	F > F crit, reject the null hypothesis	F > F crit, reject the null hypothesis

Table 115: mean figure comparisons between age groups for focus practitioners

As seen from the table above the, the mean scores obtained for the statement two, for age groups; 21 and under, 22 and 34, and 65 and over, received disagreeing results. This indicates that these groups would like to see more research interests within their private colleges. On the other hand, the age group, 45 to 54, scores a mean figure of above six for the statement three, thereby this particular age group specifically agreed strongly that it is indeed easy to meet key personnel within their private college. Further, the ANOVA shows that for all age groups, this research can reject null hypothesis. Meaning that at least one mean within each group is different. However, a detailed assessment using t tests was not required at this stage, as the overall ANOVA and t test scores of five dimensions can be found in section 9.6 below.

	Overall Mean	Number of courses studied		t-Test: Two-Sample Assuming Unequal Variances (one and multiple courses)		
		One course	More than one course	T Stat score	t Critical two-tail score	$H_0: \mu_1 - \mu_2 = 0$ $H_1: \mu_1 - \mu_2 \neq 0$
Statement 1	5.1168	5.1831	5.0689	6.3847	1.9601	T stat > t critical therefore Reject H_0
Statement 2	4.3532	4.4371	4.2946	5.3377	1.9601	T stat > t critical therefore Reject H_0
Statement 3	5.2757	5.2580	5.2922	(-1.7315)	1.9601	T stat < t critical therefore do not Reject H_0
Statement 4	4.7349	5.0908	4.7780	12.5685	1.9601	T stat > t critical therefore Reject H_0

Table 116: mean figure comparisons for number of courses studies for focus practitioners

The table above shows the mean figures for participants that have only studied one qualification with a private college against those participants that have studied multiple qualifications. The relatively lower mean scores of the group that have studied multiple courses, apart from statement three, indicate they are growing a higher level of expectations for focus practitioner attributes of private colleges. A comparison of means using two sample t-tests gave scores of a higher t-statistic figure than t-critical value for statements one, two and four, meaning that this research rejects the null hypothesis for those three statements. Therefore, the observed difference between the sample means is convincing enough to say that the average scores of three focus practitioners statements between students that have studied one qualification and multiple qualifications differ significantly. At the same time, for statement three, the observed difference between the sample means (5.2580 to 5.2922) is not convincing enough between the two participant groups to differ significantly.

Finally, the table below shows the respective covariance between flexible questions.

	Statement 1	Statement 2	Statement 3	Statement 4
Statement 1	1			
Statement 2	0.637803	1		
Statement 3	0.433277	0.709392	1	
Statement 4	0.284523	0.482418	0.454692	1

Table 117: covariance values of focus practitioners statements

The covariance is all positive for between statements, which is yet again confirmation of the higher positive correlation amongst focus practitioners statements. In particular the covariance between statements 1 and 2, and 3 and 2 is above 0.6, meaning a higher positive correlation. The covariance between statements 1 and 4, shows the lowest, albeit positive, covariance with a figure of 0.2845.

9.5.8 Order of priority – focus practitioners

Finally, as shown in the table below, over 86% of the participants ranked focus practitioners as the least important dimension when choosing to study at their particular private college in the UK.

	1	2	3	4	5	Total	Average Ranking
Flexible	84.85% 10,492	7.42% 918	4.37% 541	2.09% 259	1.26% 156	12,366	4.72
Market Driven	3.49% 431	23.16% 2,864	61.09% 7,554	5.80% 717	6.47% 800	12,366	3.11
Assured	4.72% 584	7.94% 982	24.81% 3,068	60.53% 7,485	2.00% 247	12,366	2.53
Customer-Focussed	4.47% 553	58.61% 7,248	7.30% 903	25.75% 3,184	3.87% 478	12,366	3.34
Focussed-Practitioners	2.47% 306	2.86% 354	2.43% 300	5.83% 721	86.41% 10,685	12,366	1.29

Table 118: Ranking of dimensions – focus practitioners

Further, as shown in the table above, focus practitioners received the lowest average rank of just 1.29 (out of five), meaning that it is the least important service quality dimension.

9.5.9 Concluding discussion for focus practitioners

All in all, the data gathered indicate a moderate acceptance for measures associated with focus practitioners. In particular, in the order of priority, participants gave the least importance for this dimension. However, it is important to understand that all dimensions are interlinked in creating the overall customer satisfaction, and indeed elements of focus practitioners can have a direct influence in terms of flexibility and customer focus within the colleges.

9.6 ANOVA – Analysis of variance of five dimensions

As illustrated in sections 9.1.8, 9.2.8, 9.3.8, 9.4.8 and 9.5.8 above, ANOVA is an effective way of comparing the means of different groups, which will then provide the research with some insights of any variations of means across various groups (Leard, 2014). According to Lane (2014), ANOVA can be calculated at four various circumstances;   one-way between groups is used to measure mean differences between groups, one-way repeated measures is used to calculate mean differences between groups at a variety of stages during a longitudinal study, two-way between groups is used to calculate differences of mean of groups with for example main and interaction effects, or with multiple variable, and two-way repeated measures is used for groups with several data inputs throughout a study involving a variety of variables.

For the purpose of this study, one way between groups ANOVA has been conducted to identify differences between means across the five service quality dimensions. On the other hand, ANOVA can be also used as a method of testing hypothesis (Leard, 2014), as the null hypothesis assumes that the means across different groups are the same, whereas alternative hypothesis assumes they are different. Therefore, the hypothesis of this research is:

Null Hypothesis (H0): The mean figure of all five service quality dimensions is the same;

Alternative Hypothesis (H1): The mean figures of at least one of the five service quality dimensions is different;

The following table shows the initial analysis of mean and variance figures of service quality dimensions;

Service quality dimension	Average	Variance
Flexible	5.102005	1.110268
Market Driven	5.279254	1.283915
Assurance	5.147622	1.123157
Customer Focus	5.051298	1.397456
Focus Practitioners	5.135974	1.029837

Table 119: ANOVA – five dimensions

As seen from the table above, the initial observations of these indicates that the mean figures as well as variance figures are consistent across the dimensions, with the variance for customer focus higher than the variances observed for the other four dimensions. Focus practitioners reported the lowest variance of 1.0298.

However, the following table shows the ANOVA one way between groups' calculations at 95% confidence level.

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1550.036	4	387.5089	324.348	0.05	2.371965
Within Groups	327491.5	274113	1.194732			
Total	329041.6	274117				

Table 120: sources of variations ANOVA – five dimensions

The key to this table are as follows:

SS = Sum of Squared differences of each observation from the overall mean; DF = Degrees of Freedom and refers to the sample size less the number of independent variables. For example, the sample size is five and the number of independent variables is 1 therefore DF between the group is 4; MS = Mean Square; F = F/test Statistic; F crit = critical value or the number the test statistic must exceed to reject the null hypothesis

If F > F crit, ANOVA reject the null hypothesis. As seen in the table above, (F) 324.348 > 2.371 (F crit). Therefore, this study rejects the null hypothesis, indicating that the mean figures of at least one of the five service quality dimensions are different to the others. In order to determine the exact dimensions of these specific mean differences a sample t-test has been conducted across the dimensions. The respective outcomes are as follows:

Service quality dimensions		t-Test: Two-Sample Assuming Unequal Variances		
		T Stat score	t Critical two-tail score	H_0: $\mu_1 - \mu_2 = 0$ H_1: $\mu_1 - \mu_2 \neq 0$
Flexible	Market driven	(- 26.9222)	1.9599	T stat < t critical therefore do not Reject H_0
Flexible	Assurance	(- 7.1890)	1.9599	T stat < t critical therefore do not Reject H_0
Flexible	Customer focus	7.9978	1.9599	T stat > t critical therefore Reject H_0
Flexible	Focus practitioners	(- 5.4776)	1.9588	T stat < t critical therefore do not Reject H_0
Market driven	Assurance	18.9451	1.9599	T stat > t critical therefore Reject H_0

Market driven	Customer focus	32.8321	1.9599	T stat > t critical therefore Reject H_0
Market driven	Focus practitioners	21.0193	1.9599	T stat > t critical therefore Reject H_0
Assurance	Customer focus	14.3394	1.9599	T stat > t critical therefore Reject H_0
Assurance	Focus practitioners	1.7685	1.9599	T stat < t critical therefore do not Reject H_0
Customer focus	Focus practitioners	(-12.8656)	1.9599	T stat < t critical therefore do not Reject H_0

Table 121: two sample t tests – five dimensions

As seen from the table above, the two sample t-test analyses amongst five dimensions revealed that the observed difference between the sample means of; flexible and market driven, flexible and assurance, flexible and focus practitioners, and assurance and focus practitioners, are not convincing enough to say that the average means between these service quality dimensions differ significantly. However, on the other hand, the sample means of; flexible and customer focus, market driven and assurance, market driven and customer focus, market driven and focus practitioners and assurance and customer focus, are indeed convincing enough to say that the average means between these service quality dimensions differ significantly.

9.7 Chapter conclusion

This chapter looked at the service quality dimensions more closely by utilising the demographical data collected as part of the survey.

Each one of the five sub-chapters looked at one service quality dimension each, by initially looking at the data collected and the basic trends of data. The chapters then looked at the correlation (r values) to determine how each measure (statement/question) relates to the other measures within each dimensions. The r values consistently show scores near or above the acceptable level of 0.3.
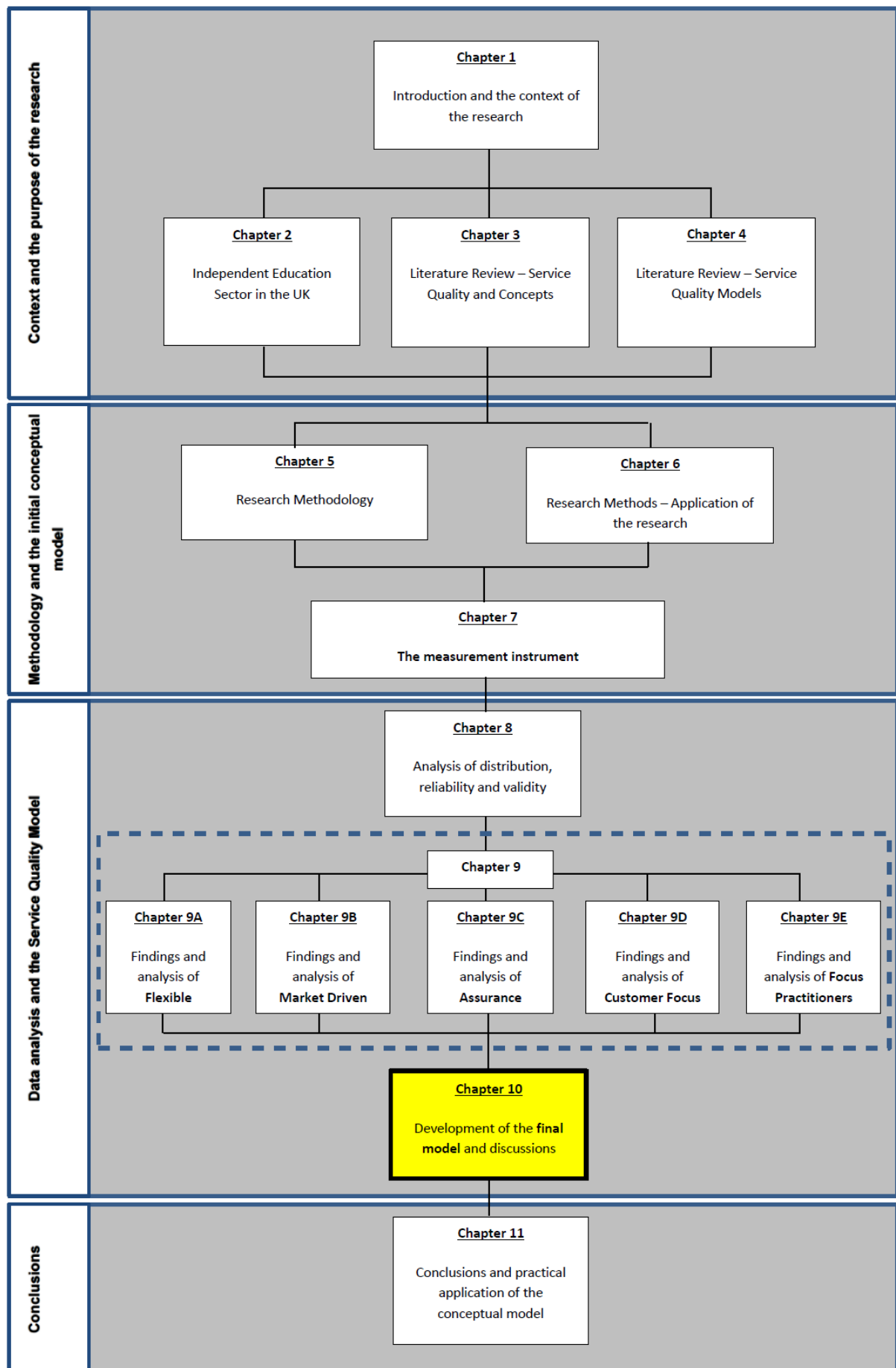
Further, this chapter analysed demographical data for each dimension by analysing trends associated with student status i.e. whether the participant is from home/EU or non-EU origin, gender, age group and the number of courses studied. Variances in each of these mean scores were discussed before looking at covariance within each statement. Further, variances in mean scores were compared and analysed using ANOVA and t tests throughout the report to show the comparability of different means, before finally looking at the five service quality dimensions' variance of means using ANOVA and then identifying comparable means using t tests.

The next chapter will build on the understanding gained in chapters eight and nine with a view to building the service quality and performance model for independent colleges in the UK.

Chapter 10

Development of the final model and discussion

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10.0 Chapter introduction

As the final chapter of section 3, data analysis and the service quality model, this chapter aims to combine the understanding gained within previous chapters and develop the final model to measure service quality within independent colleges in the UK.

This chapter, in particular, will look at the improvement of responsiveness, drawing back the discussions from chapter 8, to enhance the validity and reliability of the measurement instrument and the empirical model.

10.1 Summary of the developments so far

This report, so far identified five dimensions as important for students choosing to study at a private college in the UK. The dimensions are; flexible, market drive, assurance, customer focus and focus practitioners (section 6.5).

In addition, 22 measures were identified to determine the level of agreement, hence satisfaction, of the five dimensions and these measures are allocated to dimensions as; five measures for flexible, four measures for market driven, four measures for assurance, five measures for customer focus and four for focus practitioners (section 6.7).

These measures were used in developing an online survey, with 12,776 participants taking part. Demographic data collected as part of the survey, such as student status, gender, age groups as well as numbers of courses studied at private colleges did not reveal major disparities with these demographical groups (sections 6.8 and 6.9).

Further, each dimension was given equal weighing during the conceptual model development stage as the study failed to determine specific importance weighting of the dimensions. However, the data gathered by requesting participants' to rank dimensions revealed that over 85% of participants ranked flexible as the most important dimension with focus practitioners as the least important one. During further discussions and analysis it was evident that allocating a specific weighting for these dimensions requires further research which was agreed with by the members of the expert panel, and therefore this research resolved to retain equal weighing for all five dimensions.

As discussed in section 3.1 and 3.7, service quality management and improvement is an ongoing process and requires continuous improvement. Therefore in order to develop an effective service quality model, organisations must integrate service quality implementation closely with customer expectations and perceptions (Parasuraman et al., 1988). Effective implementation processes will not only enable organisations to overcome the barriers of quality management, as discussed in section 3.8, it will also enable effective management and identification of changing customer expectations.

10.2 Implementation process and points

After further discussions with the expert panel this report suggests that private colleges in the UK use the data collected in a more constructive and effective way to continuously improve the delivery across the five service quality dimensions. According to the expert panel, the implementation process, which is referred as 'implementation points', is formed of three continuous activities:

prioritise service dimensions, focus on larger and negative service gaps, and take corrective action and communicate to customers. These three activities are discussed below:

- • Prioritise service dimensions
  The purpose of this action is to encourage participants to provide feedback to the management of the college which dimensions are most important to them. This will enable management to allocate more resources and planning to those critical areas, to ensure that customer needs are met.

  For example, if students place more importance on market driven aspects, the management of the college can take action to ensure that the fees remain competitive, offer additional support to students to enhance their learning experience and pass rates, offer instalment payment options as well as ensuring that all fees and costs are included in the fees, and communicate these more efficiently to students.

  As explained in 8.2, the private college must use the following underlying principles to focus their efforts: a score between one and three for a particular measure as not meeting expectations, b) a score of four as meeting expectations and c) a score of five to seven as exceeding expectations. Therefore, the organisation must first focus on areas where they do not meet customer expectations, followed by meeting expectations i.e., zone tolerance, and finally on how to sustain those areas where they exceed expectations.

  Obviously, the student priorities are likely to change during the course of their studies, and therefore management must remain pro-active in identifying and prioritising these service aspects that are crucial for students. These will require prioritisation from the management's perspective, which will link with the second implementation point below.

- • Focus on larger and negative service gaps
  When taking action, the management must first focus of areas with large service gaps i.e. where students have scored one, two or three in the seven point Likert scale, with one taking priority.

  This will ensure that the areas of most dissatisfaction are dealt with with immediate effect to manage continuous student dissatisfaction. Short term actions, combined with longer term strategies are required to ensure that customers are satisfied both in the short term and that the organisation remains customer focused in the longer term.

  As explained in section 8.2, the underlying assumptions of the seven point Likert-type scale correspondents to, for example, a score between one and three indicates dissatisfaction, with a lower end score indicating a higher level of dissatisfaction for that particular area i.e., a bigger negative service quality gap. On the other hand, a score between five and seven indications satisfaction, with a higher score indicating a higher level of satisfaction i.e., a bigger positive service quality gap. Finally, a score of four implies that the provider is meeting customer expectations, and therefore must focus on improving these areas to ensure customer satisfaction is maintained.

  For example, if a larger negative service gap is detected in the area of online resources, management must take immediate action to add further resources or provide alternative

options to rectify student's unhappiness immediately. This will lead on to the longer term strategies of the organisation, which will lead to the third implementation point below.

- <u>Take corrective action and communicate to customers</u>
  The final part of implementation is to ensure that management takes corrective action and has a service quality plan in place. For example, the implementation of service quality champions within the organisation is a good way of achieving organisational buy-in. In addition, regular meetings must be held with middle managers as well as front line staff members to discuss the findings of the student feedback and performance across the five service quality dimensions.

  In addition, it is vital to inform students (customers) of any corrective action that the management has taken, as part of the feedback received from students. This will not only allow students to see that their views are taken into account, which will ultimately lead to managing student expectations, but effective communication can also encourage more and more students to take part in providing regular feedback to the organisation.

Finally, as shown in the diagram below, these three implementation points, must be followed continuously to enable opportunities for continuous improvements and the delivery of service quality within the college.
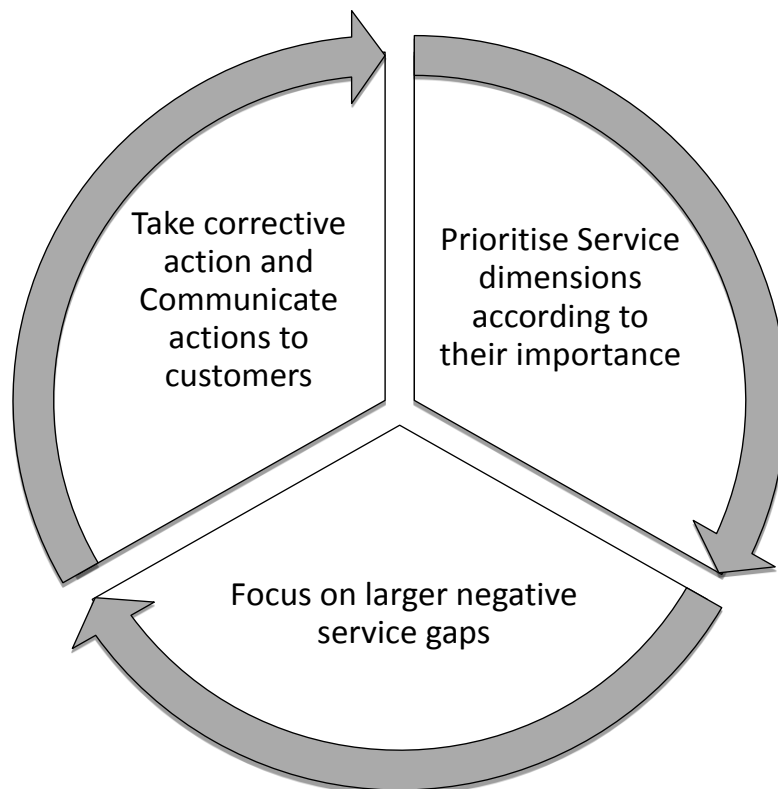

Diagram 67: service quality implementation points

Therefore as described above the service quality dimensions require continuous measurement, assessment and refinement to ensure changing student expectations are met on a regular basis, and

that organisations make specific improvements to their service management strategy. Customer needs and wants change over time and effective service quality measurement instruments will therefore need to be responsive to these changing needs (refer section 8.12). In order to improve the responsiveness of the measurement instrument a continuous refinement and adjustment of measures as well as service quality dimensions are required on regular basis.

10.3 Service quality and performance model for independent colleges in the UK

Service quality is a continuous process and evolves with the changing customer needs and expectations. Therefore service quality dimensions, measures as well as implementation points require regular evaluation and assessment. For example, the measures for each dimension are likely to change depending on the qualification delivery, student mix as well as during length of their qualification, whereas the importance of service quality dimensions can deviate depending on the student needs and qualification requirements. As discussed in section 8.12 in this report, the responsiveness of the measurement tool in particularly important in assessing the continuous validity and the reliability of the measurement instrument. Therefore, it is imperative that not only the measurement instrument i.e., the online questionnaire, but the whole model is responsive to the changing dynamics of the population (Kimberlin and Winterstein, 2008).

As shown in the diagram below, the service quality and performance model for independent colleges in the UK, requires these three components; service quality dimensions, measures, and implementation points, to continuously refine and develop. Where the organisation will continuously identify and refine the service quality dimensions and measures to meet changing student expectations on a continuous basis, whilst sustaining positive service gaps, thriving to remove negative service gaps and by converting neutral areas to positive service gaps.
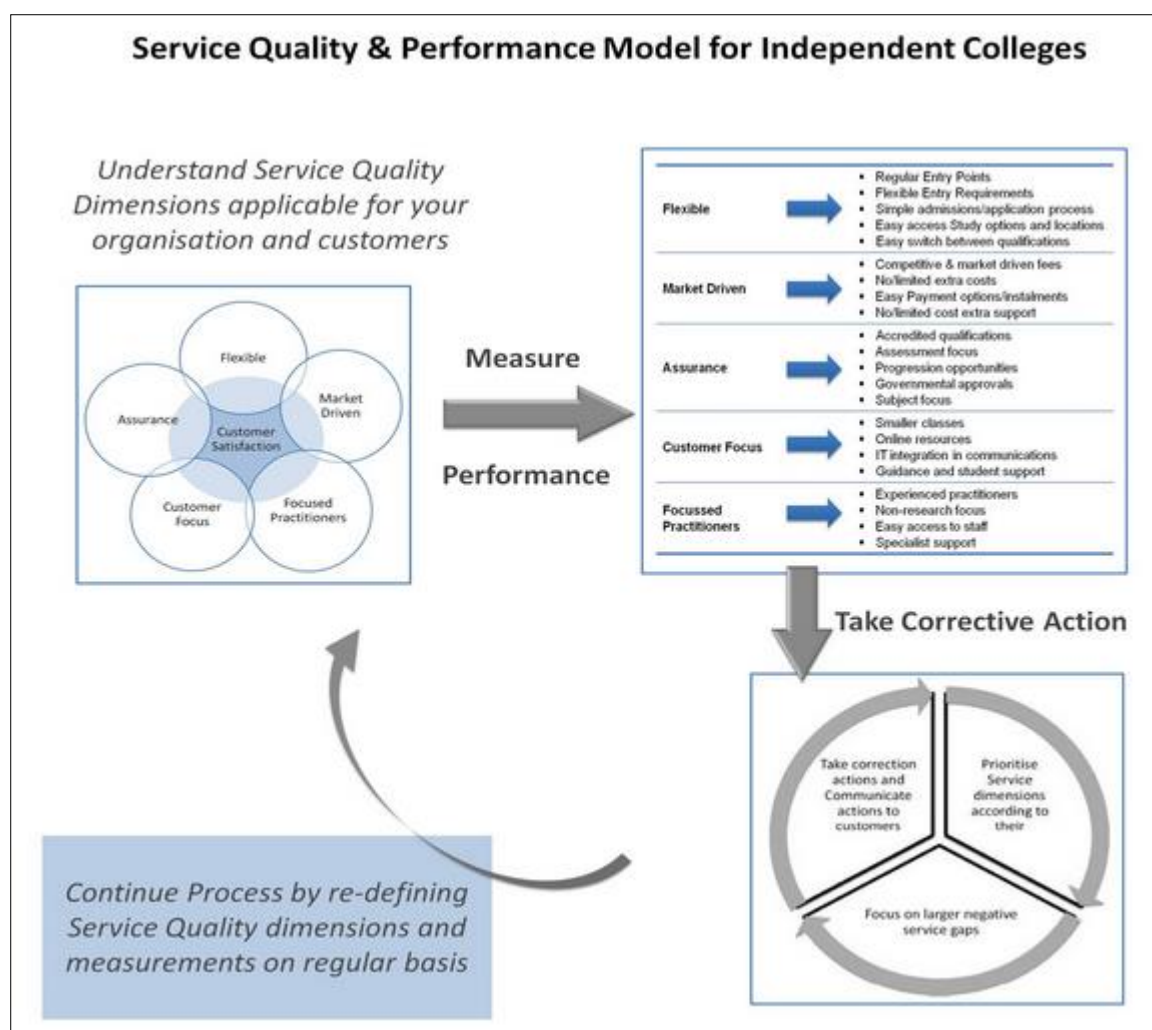
Diagram 68: service quality and performance model for independent colleges in the UK

As seen from the diagram above, the service quality model is a dynamic tool which will enable private colleges in the UK to continuously monitor and assess the level of student satisfaction. The dimensions itself are likely to change, therefore definitions associated with dimensions require continuous assessment and refinement. The same is true for the 22 measures associated with the five dimensions. These require refinement and adjustments on the basis of the changing customer needs and expectations.

10.4 Chapter summary

As the final chapter of section 3, data analysis and service quality model, this chapter looked at the implementation process and continuous improvements with a private colleges and the action that the management must take to ensure continuous delivery of service quality.

In addition, this chapter looked at how the three aspects, service quality dimensions, 22 measurements, as well as implementation points, work together on a continuous basis to form the overall service quality and performance model for independent colleges in the UK.

Conclusion to Section 3: Data analysis and the service quality model

As described in the introduction to section 3, this section aims to build on the contextual and methodological understanding from sections one and two by focusing on data analysis and the development of the final service quality model for private colleges in the UK.

The aim of the section is to:

Analyse data to identify patterns of distribution;
This objective was achieved in chapter eight where this report analysed the measures of central tendency, shape of distribution as well as variances within the sample. Several assessments were conducted to determine the normality of distribution of the data collected, not limited to skewness and Kurtosis, boxplot and whiskers analysis, Q-Q analysis as well as Lilliefors significance correlation.

Identify and assess, validity and reliability of the measurement instrument;
Once the normality of distribution was established, chapter eight then analysed the validity and the reliability of the measurement instrument. In terms of reliability, the equivalence assessment of reliability was carried out by giving the original and an amended questionnaire to the same pilot group, the stability assessment was completed by having the same questionnaire completed by the same group of participants at two different times and finally the internal consistency was calculated using Cronbach's Alpha Coefficient.

Validity, content, face and criterion-related validity were determined with the aid of the expert panel. Concurrent and predictive validity was measured using aspects of correlation coefficient r values. Finally, construct validity was assessed via confirmatory factor analysis.

Analyse the data trends for each service quality dimensions;
Chapter nine, along with five sub-chapters, looked at service quality dimensions in more detail using demographical indicators collected as part of the study. Demographical indicators analysed included: student status, gender, age group and the number of courses studied at private colleges in the UK.

Explore options in improving the responsiveness of the service quality model and the measurement instrument.
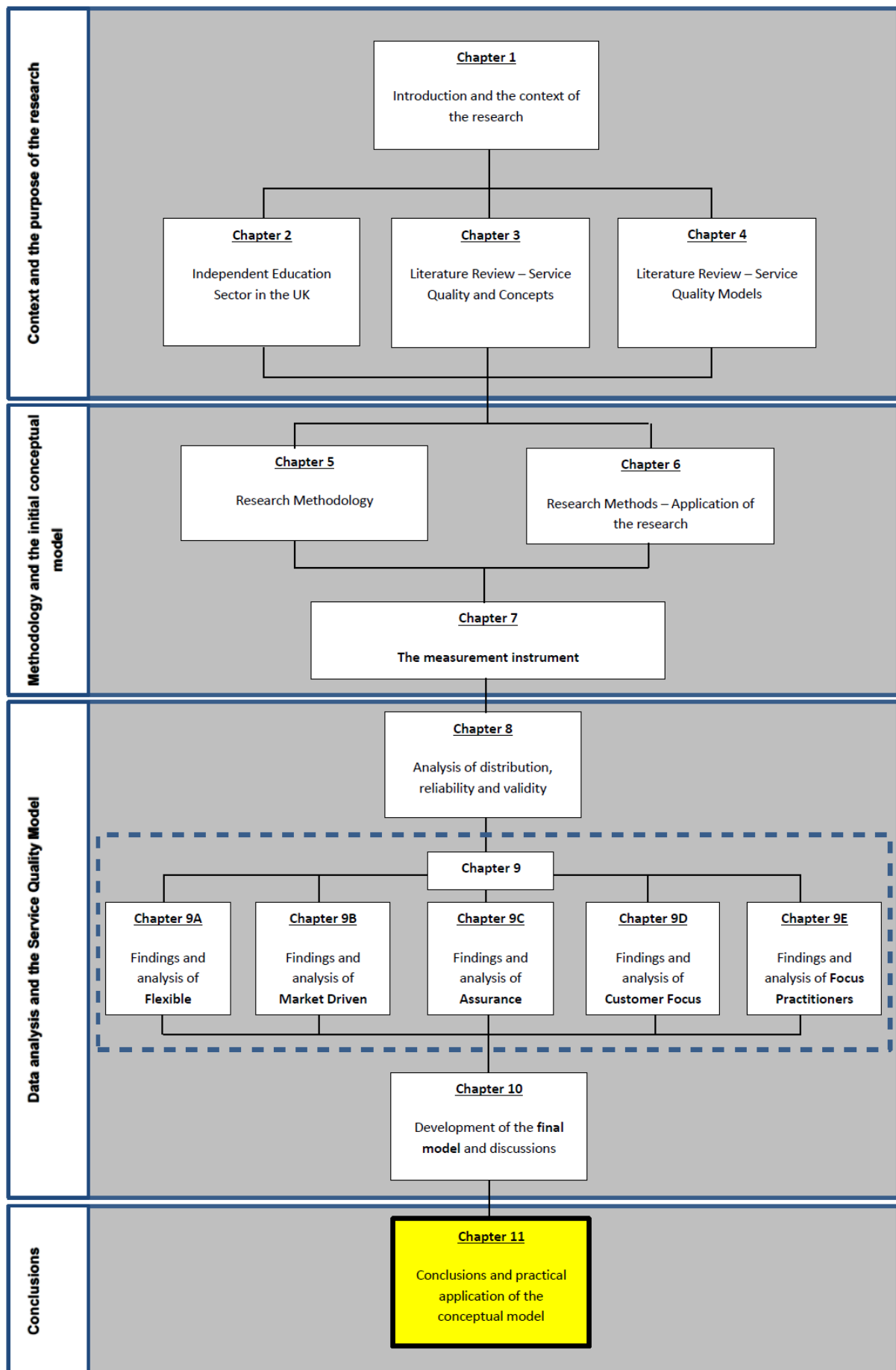Chapter 10 was designed to integrate the discussions so far in this report and develop the final service quality model. Therefore, the final service quality model combined three aspects as: service quality dimensions, 22 measures, as well as implementation points to form the dynamic model that requires continuous assessment and refinement.

Now this report has developed an empirical model to measure service quality and performance at independent colleges in the UK, the final section will look at practical suggestions for implementation, and the improvements of validity of the model.

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11.0 Section and chapter introduction

Section four and chapter 11 of this report is aimed at bringing the different elements of the research together in order to re-visit the aims and purpose of the research, the objectives of the research as well as how well this study and the report answers the primary and secondary research questions.

This section will also compare the key findings of this study with previous studies and makes recommendations for improvements.

In addition, this chapter will also look at the suggestions for future implementation of the research findings and the service quality model with a view of enhancing the underlying constructs as well as the validity and reliability of the measurement instrument.

11.1 Revisiting research objectives

As outlined in chapter one, this research and this report aimed to achieve several research objectives. The section below explains the way in which this research achieved the research objectives identified in chapter one, they are as follows:

Purpose of the research

The purpose of this research as stated in section 1.4.1 is as follows:

The general purpose of this research is to construct an empirical model to measure service quality performance of private colleges in the UK.

This research adapted a three stage model in order to achieve the purpose of the study as illustrated in table 1 as well as in section 1.7.

During the first stage of the research this study completed an extensive literature review of service quality concepts, models and applications of previous researches within the higher education field. In addition to the extensive literature review, the researcher also conducted several in-depth one to one interviews with industry experts to trace back the steps of key changes within the private higher education sector in the UK. This research then led to, as described in section 2.1, the understanding of the modern history and developments within private colleges in the UK, and led to the conclusion that the existing models of service quality require alterations to meet student expectations that are unique to private colleges in the UK, as explained in 6.1.

Stage two of the development process involved conducting several focus group discussions, expert panel reviews, a pilot study as well as comments from a proofreading panel. This research adapted concepts of the conceptual model development process by Churchill (1979) and Abdullah (2006a) as illustrated in diagrams 11 and 12, as well as in section 5.16. After several focus group discussions and expert panel reviews, five service quality dimensions i.e., flexible, market driven, assurance, customer focus and focus practitioners, were identified as key to student satisfaction for private colleges in the UK and an inter-linked framework combining these five dimensions was developed as described in section 6.5.

As explained in section 6.9, the measurement instrument, an online self-report survey consisting of 22 statements, has been developed to measure the performance across the five dimensions. The 22 statements were allocated to the service quality dimensions; five statements each for flexible and customer focus and four statements each for market driven, assurance and focus practitioners.

The validity and reliability of the inter-linked service quality dimensions, as well as 22 measures, were tested using an online survey, which was made available to students who are currently studying or have studied at a private college in the UK from 1st June to 30th November 2013. An international sample size of 12,776 participants took part in the online survey as described in section 8.1. Once the normality of distribution was established, the reliability of the measurement instrument was tested for equivalence (as illustrated in table 44), stability (as illustrated in table 45) and internal consistency (as illustrated in tables 46 and 47).

Once the reliability of the measurement instrument had been established the study then conducted the validity assessments by testing content and face validity using expert panel reviewers. Concurrent validity was measured using correlation coefficient r values, as illustrated in table 53, and predictive validity by using those participants that have studied multiple qualifications with private colleges. Aspects of Statistical Equation Modelling were used to determine the construct validity of the measurement instrument, as described in section 8.11.6, with the specific use of confirmatory factor analysis and regression analysis to identify the model fit (refer diagram 42).

Once the reliability and the validity of the conceptual model were established, this study then focused on the improvement of organisational implementation and responsiveness of the model by linking the five dimensions, and the 22 statements, with implementation points, which consisted of three continuous activities to ensure the identification, prioritisation and implementation, and continuous loop of improvements and implementation, as described in section 10.3.

Finally, in order to improve the overall responsiveness of the empirical model, the five service quality dimensions, 22 measurements and the implementation points, were then linked together to form the service quality and performance model for independent colleges in the UK as described in section 10.3 and illustrated in diagram 68.

As described above, this research has indeed achieved the purpose identified in section 1.4.1, by a) initially developing a conceptual model, b)testing the model with a sample size of 12,775 participants, and finally c) improving the model's responsiveness by linking implementation points and the continuous refinement process.

This study has therefore indeed achieved the purpose of the research by constructing an empirical model to measure service quality performance of private colleges in the UK.

Aim of the research

The aim of the research, as mentioned in chapter one, section 1.4.2, is as follows:

This research aims to understand and determine the factors that are important to students, such as service quality dimensions; in choosing to study at a privately funded colleges in the UK and to develop an empirical model from the student's point of view; to identify and understand what students 'expect' from their private educational college; and what they actually 'experience'. Therefore, this research can be defined as an exploration into Service Quality Dimensions and student satisfaction at Independent Educational Colleges in the UK

As explained under the purpose of the research above, this study has indeed identified expectations from students' points of view, initially from a series of focus group discussions and interviews. Those findings were then validated and re-validated by an expert panel as well as a pilot study group, before categorising those findings into five broad areas, service quality dimensions and 22 measurements to measure the performance of these dimensions, as described in sections 6.4, 6.5 and 6.6.

As described in section 6.8, these five dimensions and the respective measurements, were then converted onto an online survey which was based on a performance-only assessment using a seven point Likert-type scale. The performance-only measurement scale enabled the research to understand what students actually experienced from their private providers by identifying; a) scores between one and three as not meeting expectations, b) a score of four as meeting expectations and c) a score of five to seven as exceeding expectations.

Statistical assessments carried out in chapters eight and nine, showed that the participants gave an average score of four or more, across all dimensions and measurements indicating that their respective private college had not only met their expectations, but in some instances exceeded their expectations.

Finally, inferential statistical analysis was conducted using individual dimensions – refer to chapters 9A to 9E – by comparing means using a variety of demographical data, including but not limited to, gender, age, number of qualifications studied, as well as origin of the participant. Even though the means of these different groups indicated scores of four or above for all service quality dimensions, they observed different variances and distribution patterns as identified using ANOVA and t tests.

This research has indeed achieved the aims of the research by understanding and determining the factors that are important to students, in choosing to study at privately funded colleges in the UK, and by developing and testing the empirical model from the student's point of view by, a) identify and understanding what students 'expect' from their private educational college and b) understanding what students have actually 'experienced'.

Objectives of the research

As described in section 1.4.3, this study identified four objectives as:

1. <u>To investigate the key service quality dimensions that are relevant for independent education colleges in the UK;</u>

   As explained in section 6.5, this study identified five service quality dimensions that are applicable to independent colleges in the UK as follows:

   <u>Flexible</u> (or flexibility) refers to the number of alternative study options offered by a particular private college with regards to the qualifications offered, study modes, entry requirements and assessments. These aspects enable a student to start a qualification with a private college without having to wait too long, and as a result of the variety of study options offered, the student will be able to fit his or her studies around work and other personal commitments. In addition, the complexity, or the simplicity, of the application process, the ability to change between qualifications, study modes and courses in the event that a student did not wish to continue the course they had enrolled in, are also covered under this service quality dimension (as explained in sections 6.5.1, 7.4 and 9A).

   <u>Market driven</u> refers to how a private college reacts to market changes and dynamics and continues to operate as a customer centric organisation. This requires private colleges to achieve a good balance between academic quality as well as meeting market demands, without having to compromise on the quality of the learning experience. Market changes as well as other areas such as course fees, the level of support services, such as careers support, face to face learning hours, personal tutoring, learning and study materials, along with various other facilities provided by the tutor are covered in this dimension. The numbers of students in a particular classroom and the attention given to students by lecturers are also considered under market driven (as explained in sections 6.5.2, 7.5 and 9B).

   <u>Assurance</u> refers to aspects of confidence and the recognition of qualifications offered by private colleges in the UK. For example, any guarantees and warranties of compliance of the actual qualifications and how private colleges work with external awarding bodies and universities to provide qualifications that are not only recognised in the UK by higher education providers and universities, but also internationally by employers. In addition, assurance also looks at how the overall quality assurance is managed by the respective private colleges by taking part in both mandatory and optional quality assurance audits provided by governmental or nationally recognised organisations, such as approvals by awarding bodies, and accrediting bodies such as the Quality Assurance Agency (as explained in sections 6.5.3, 7.6 and 9C).

Customer focus refers to how well a particular private college meets the changing needs of their students. Areas such as the higher level of individual attention by having better student/lecturer contacts with smaller class sizes, and how the college adapts to changing customer behaviours by adding more online resources that are accessible via laptops, tablet computers as well as smart mobile devices, are all covered under this category. Areas such as the support provided in terms of registering with professional bodies, staff knowledge of the area, as well as the ease of communication with key staff members are also included (as explained in sections 6.5.4, 7.7 and 9D).

Focus practitioners refers to the relevant experience and specialist knowledge held by both teaching and administrative staff members within the respective private colleges. The importance of lecturers sharing their own experiences to explain theories and concepts, rather than putting too much focus and attention on academic theories, enables students to acquire real business insights, and develop key skills to enhance their careers. For example having experienced professionals/practitioners, as opposed to pure academics, is valued by students, as they see it as a lot more beneficial (as explained in sections 6.5.5, 7.8 and 9E).

Further, as described in section 10.3, a total of 22 measurements were also identified to appraise the perceived service quality from the students' points of view. The individual mean scores of the measures were then put together to calculate the overall perceived level of service for a specific dimension.

The second objective set by this study was:

2. <u>To understand the degree of importance for each of these individual service quality dimensions in enhancing service quality within the sector;</u>

Focus group discussions, expert panel reviews as well as the online survey failed to indicate a specific and definitive weighting for each dimension. Therefore, all dimensions were given an equal weighting, as the model implies, in order to achieve overall student satisfaction the specific private college must consistently deliver across all five dimensions and the accompanying 22 measures/statements.

However, it is worth indicating that the average rank of importance as identified by the survey participants were; flexible (4.72), customer focus (3.34), market driven (3.11), assurance (2.53) and focus practitioners (1.29).

Even though flexible achieved higher rank score, the aspects of flexible can be shared with other dimensions, such as customer focus and market driven. Therefore, the performance of one factor can influence the performance of another. As described in sections 9.1.9, 9.2.8, 9.3.9, 9.4.8 and 9.5.8, as well as close correlations (table 53) between the five dimensions indicate that further research is required in this area prior to determining a specific order of priority and weighting.

This study can therefore conclude that the five service quality dimensions are equally important to student satisfaction, and the close integration between dimensions means that private college must put equal importance on all five service quality dimensions.

The third objective set by this study was:

3. <u>To identify the quality gaps, and measure the level of customer satisfaction within the independent educational colleges in the UK;</u>

As explained in section 6.9, this objective was achieved by the development of a performance-only measurement instrument, which uses a seven point Likert-type scale. For example, a score between one and three indicates dissatisfaction, with a lower end score indicating a higher level of dissatisfaction for that particular area. On the other hand, a score between five and seven indicates satisfaction, with a higher score indicating higher level of satisfaction. Finally, a score of four implies that the provider is meeting customer expectations, and therefore must focus on improving these areas to ensure customer satisfaction.

The section 8.4 and in particular table 24, illustrates the service gaps across the 22 measurement areas. The performance levels across all areas indicate either the specific private college meeting student expectations or exceeding expectations. However, as illustrated in table 25, the providers must focus on formulating strategies to sustain and enhance the level of student satisfaction by creating larger positive service quality gaps.

The final objective of this research was:

4. <u>To develop an empirical model for measuring Service Quality for the independent Education Colleges in UK;</u>

As described in chapter 10, specifically in diagram 68, this research developed a tested empirical model to measure service quality performance at independent education colleges in the UK.

The model consists of five service quality dimensions, which are measured using 22 statements/measurements. The findings of performance of these measures will then lead to a three stage implementation process, which requires identification, prioritisation, and action from the organisation, as described in section 10.2. Due to the changing and dynamic nature of student expectations these three parts are then linked to a continuous process, where the organisation will continuously identify and refine the service quality dimensions and measures, to meet changing student expectations on a continuous basis, whilst sustaining positive service gaps, thriving to remove negative service gaps, and by converting neutral areas to positive service gaps.

As shown from the discussions above, this study has indeed achieved the four objectives by identifying service quality dimensions as applicable to independent colleges in the UK, understanding the importance of each of these dimensions, determining service quality gaps via the use of the seven point, performance only, Likert-type scale, and finally by developing a tested empirical model to measure service quality performance within independent colleges in the UK.

Furthermore this report, in section 1.5, also identified one primary research question and two secondary research questions as follows:

Research questions

Primary research question

Do private higher education providers in the UK meet student expectations?

On the basis of the data collected via an online survey, of which 12,776 participants took part over a period of six months, revealed that private colleges in the UK have indeed not only met student expectations across five key service quality dimensions, they also exceeded student expectations.

For example, the overall mean score across all five dimensions was 5.0940, which corresponds to 'agree somewhat', and above the neural score of 4.0000. As described in 8.2, this reflects a moderate positive service quality gap across all five dimensions.

Secondary questions

What are the areas of service quality that are most important to students, when choosing to study at a privately college in the UK?

This study identified five service quality dimensions that are important for students when choosing to study at a private college in the UK, i.e. flexible, market driven, assurance, customer focus and focus practitioners.

All these dimensions carry equal importance to students, where the collective performance across all five dimensions leads to overall student satisfaction, as illustrated in the service quality diagram in section 6.6, diagram 15.

Does their chosen private college, meets students expectations in all these areas?

The research did not specifically identify particular colleges due to ethical and regulatory reasons. However, the overall mean figures obtained during the data collection period revealed that the respective private colleges those participants have studied (or are currently studying at) have not only met their expectations but moderately exceeded them for service delivery.

It is however important to understand that the application of service quality is a longitudinal process and this study only reflects the findings of a cross sectional evaluation of feedback.

As suggested in the service quality model, 10.4 above, the model requires continuous refinement and re-adjustment of measures as well as dimensions to ensure that the measurement instrument – which is a key part of the overall service quality model – remains relevant and up to date.

As discussed above, this study has indeed answered the primary research question by demonstrating that private higher educational providers not only meet student expectations, but moderately exceed them. Furthermore this answered the secondary research questions by demonstrating that the five service quality dimensions have equal importance and all five areas are collectively responsible for overall student satisfaction. Finally, on the basis of responses received from 12,775 participants, this research can conclude that the respective private colleges these participants studied at have met their expectations.

As shown above, this study has therefore met the purpose, aims and objectives of the research, as outlined in section 1.4. The next section will look at how this study compared to seminal studies in the area of service quality management.

11.2 Comparisons with other studies

As discussed in chapter four of this report, the development and the underlying theoretical framework adapted in this study are widely used in the development of several service quality models i.e., SERVQUAL, SERVPERF and HEdPERF.

The following table, adapted by Brochado, (2009: p 178), shows how the findings of this research, the service quality and performance model for independent colleges in the UK compare with three other key models in this area.

Instrument	Service quality concept	Number of items and the scale used	Reliability and validity	Service quality dimensions
SERVQUAL (Parasuraman et al., 1988)	Perceptions' of performance – expectations	22 x 2 Disconfirmation (E - P) Seven point Likert type scale	Reliability: Internal consistency using Cronbach's Alpha Validity: • Correlation coefficient • Expert reviews • Confirmatory Factor Analysis	Tangibles, reliability, responsiveness, Assurance, empathy
SERVPERF (Cronin and Taylor, 1992)	Perceptions' of performance	22 Performance only Seven point Likert type scale	Reliability: Internal consistency using Cronbach's Alpha Validity: • Correlation coefficient • LISEREL Factor	

HEdPERF (Abdullah, 2006a)	Perceptions of performance	41 Performance only Seven point Likert type scale	Reliability: Internal consistency using Cronbach's Alpha Validity: • Correlation coefficient • Expert reviews • Exploratory and Confirmatory Factor Analysis	Non-academic aspects, academic aspects, reputation, access, programmes issues
SQPM – Service quality and performance model for independent colleges in the UK (this study)	**Perceptions of performance linked to continuous improvement model**	**22** **Performance only** **Seven point Likert type scale**	**Reliability:** • **Equivalence** • **Stability** • **Internal consistency using Cronbach's Alpha and Fischer's Correlation** **Validity:** • **Content and Face validity using expert panel** • **Criterion related validity:** **Concurrent validity using correlation coefficient r value and comparison with other models** **Predictive validity using correlation r values for returning students** • **Construct validity: Principle components Analysis (correlation r values), Confirmatory factor analysis (fit indices and regression analysis) as well as correlation r values**	**Flexible, market driven, assurance, customer focus, focus practitioners**

Table 122: Service quality measurement models and the comparison with this study

As seen from the table above, this study's findings are comparable with previous studies by Parasuraman et al., (1985), Cronin and Taylor (1992) and Abdullah (2006a). Apart from the disconfirmation paradigm adapted in the development of the SERVQUAL model, the other two

models employed performance-only measures. Similar to the findings of this study, the three models above have also identified five service quality dimensions as important to customer satisfaction. The number of measures is identical between this study, and SERVQUAL and SERVPERF, where each adapted 22 measurements, to measure the level of satisfaction across five service quality dimensions. However, Abdullah (2006a), employed 41 measurements, but subsequently (Abdullah, 2006b) acknowledged that 13 items, out of the 41, were in fact adapted from the SERVPERF model.

All the studies above used the following aspects: content, criterion and construct validity to assess the validity of the measurement instrument, with most involving a form of statistical equation modelling technique i.e., confirmatory factor analysis. Similar to this study, Cronbach's Alpha coefficient was used to measure internal consistency. However, this study, in addition to measuring the international consistency, two other tests of validity i.e., equivalency and stability, were also assessed using comparisons of measurement instruments.

Further, the service quality model developed in this study, also improved the responsiveness of the measurement by including 'implementation points' as well as the continuous improvement model, where the three parts of the model i.e., service quality dimensions, 22 measures, and implementation points, work on a continuous loop to refine and adjust dimensions and measures to meet changing student expectations.

The section below compares the model development processes adapted by previous studies and this study in order analyse how the development processes vary between the previous developmental processes.

11.3 Empirical model development process

As discussed is section 5.16, this study followed an integrated and non-linear process in developing the empirical model. The table below shows the processes followed by previous studies and this research.

Churchill (1979) As adapted by Parasuraman et al., (1985) and Cronin and Taylor, (1992)	Abdullah (2006a) Adapted in the development of HEdPERF model	Process adapted in this study
Specify domain construct (strategies - literature research, experience, critical incidents, focus groups, insight)	Identification of critical factors or determinants of service quality (strategies – literature review, focus groups)	Identification of service quality dimensions (strategies – literature review, focus group, expert panel, continuous loop until both groups are satisfied with the dimensions)

Generate sample of items (strategies - literature research, experience, critical incidents, focus groups, insight)	Development of research instrument and piloting (strategies – draft questionnaire, pilot test, expert validation, scale modification, refinement and finalisation)	Generate sample research instrument (strategies – focus group, pilot study, proofreaders and expert panel review)
Collect data		Pilot study (outcomes discussed with the expert panel)
Purify measure (strategies - Coefficient alpha, factor analysis)		Refine measures and measurement instrument (conceptual model) (Validity assessments: Face and content validity via the expert panel; Construct validity assessment via Principle components analysis and correlation coefficient. Reliability assessments: Equivalence assessment via original and amended test stability of the measurement instrument via test retest)
Collect data	survey	Survey (strategies – online survey, promoted via stakeholders, website and social media)
	Test of normality	Test of normality (measure of central tendency, boxplot and whiskers analysis, measures of spread, variance, skewness and Kurtosis, Q-Q analysis, Lilliefors significance correlation)
Assess reliability (Strategies – coefficient alpha, split half reliability)	Reliability test Unidimensionality	Assess reliability (internal consistency – Cronbach's Alpha coefficient, Fischer's correlation coefficient)

Assess validity	Exploratory factor analysis	Validity assessment
(strategies – multi-trait multi-method matrix, criterion validity)	Confirmatory factor analysis Multiple regression	(Criterion related validity: Concurrent validity using correlation coefficient r value and comparison with other models Predictive validity using correlation r values for returning students Construct validity – Principle components Analysis (correlation r values), Confirmatory factor analysis (fit indices and regression analysis) as well as correlation r values
		Responsiveness (strategies – develop 'implementation points' and create a continuous improvement loop by linking dimensions, measurement instrument and implementation points)
Develop norms (strategies - average and other statistics, summarising distribution of scores)	Proposed measurement instrument	Finalisation of the model (suggestion of future implementation options)

Table 123: comparison of empirical model development processes

As shown in the table above, the development process adapted during this research employed aspects of both Churchill (1979) as well as Abdullah (2006a) with certain improvements. For example, the inputs of the expert panel were used during the conceptual model development phase as well as at later stages before finalising the model. This study also adapted a non-linear approach, where suggestion and inputs from the pilot study were taken back to participants of the focus group for further discussions. Further, a clear survey distribution strategy was suggested and implemented to ensure a larger sample size, which involved the involvement of key stakeholders as well as social media.

Finally, in addition to the validity and reliability assessments, the improvements of responsiveness were introduced to ensure the model, and its dimensions, remain current to changing customer expectations. The implementation points, ensure that the data feeds back into management decision making systems within the organisation, will ensure that customer satisfaction remains a long term continuous process with the organisation. In addition, this model also suggested future

implementation plans for organisations to adapt and implement the model within their respective institutions.

11.4 Implementation suggestion for the service quality model

As described in the section above, and as part of the finalisation of the service quality and performance model for independent colleges in the UK, this research proposes the following implementation suggestion. This suggestion has been put together to ensure that the dimensions and measures of the model are refined and adjusted on a continuous basis to ensure that changing customer expectations are captured on a regular basis.

The following implementation suggestion requires the education institution to install several data entry devices i.e., touch screen tablets, computers and web links, at a variety of areas within the premises of the institution. When accessed, students will be shown the screen below, which is easy to use and follow.
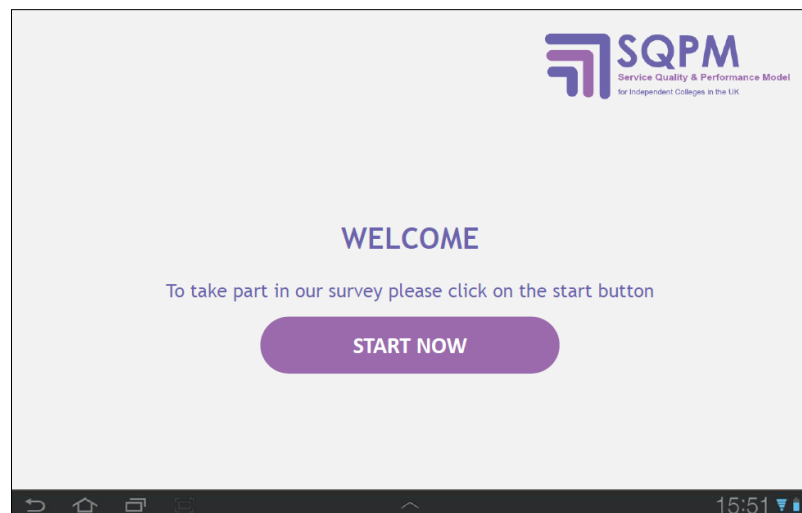
Diagram 69: implementation suggestion, entry screen

These data input points must be placed at strategic locations, such as student communal areas, canteens and cafes to ensure continuous data input from students. Once students touch the 'start now' button, they will then go to the screening questions as shown in the diagram below.

Diagram 70: implementation suggestion, screening question

As this study tested the validity of the model using these two parameters, it is therefore important that only students that meet those parameters are invited to take part in the survey. Once the survey is established that students have met these entry requirements, they will be shown the interlinked service quality model as follows.

Diagram 71: implementation suggestion, interlinked service quality dimensions

As shown in the diagrams above, students may choose to take the survey at any point they wish for example, the above images show a student starting the survey from 'flexible'. Due to the design of the measurement instrument, the data can be collected either at one dimension or multiple dimensions at a time. Once a specific dimension is selected, students will then be directed to the respective measurement statements associated with that specific service quality dimension, as shown below.

Diagram 72: implementation suggestion, data input measures

In addition to completing the measurement statements, students will also be encouraged to add additional comments, which can be then be used to refine measures by effectively understanding changes in expectations.

Diagram 73: implementation suggestion, data input multiple dimensions

As shown in the diagram above should a student wishes to provide feedback for more than one dimension, they will be returned back to the interlinked service quality model via the 'choose another section' tab.
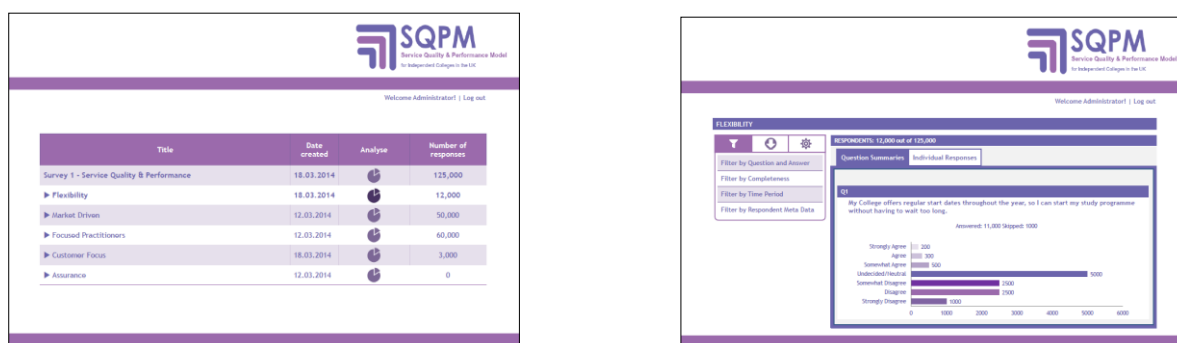
Diagram 74: implementation suggestion, management's view

Furthermore the data captured will be made available to management on a regular basis by linking the student feedback to a management information system, as shown above. This will encourage management to understand students' perceptions of service quality and changing expectations on a regular basis, which can then be taken into account when developing organisational strategies.

As discussed throughout this report, student expectations change over time, therefore, any service quality management model must be able to adapt and recognise these changing customer expectations.

Even though the researcher took great care and attention to ensure that this study is fully conform to the requirements and standards expected, naturally some limitations of the study have been identified. The key limitations of the study, as identified by the researcher, therefore are as follows:

- The online survey was made available to the participants from 1st June 2013 to 30th November 2013. Since many students have returned back to their home countries after the completion of their respective courses, this study further chosen to develop an online only self-report questionnaire. The online questionnaire was promoted via a dedicated website, a network of private colleges, agents and other stakeholders as well as social media, including twitter, Facebook and LinkedIn. In addition, the links to the online survey was posted at various online discussion groups and forums. Despite taking all these measures to attract a wider sample, it is possible that online only self-report questionnaire may have excluded some segments of students, due to non-availability of internet or in some cases lack of IT literacy.

- Further the two screening questions i.e., the age limitation of 17 years and above and only those that have studied at private colleges during the last four years were invited to take part in the survey. Even though these two measures were taken on the basis of the feedback received from the student focus group as well as expert panel, it may have been possible that these screening questions may have limited the inclusiveness of the sample, and therefore the accurate reflection of the full population of students.

- Due to time and resource constrains, this study was carried out as a cross sectional research, which inevitably has its own limitations as described in chapters three and four. Even though students that have studied at a private college during the last four years were invited to take part in the study, the inheriting nature of change of customer expectations throughout the course of their service interaction was not fully observed. Therefore, instead of conducting a cross sectional study, a longitudinal approach could have been more effective in observing these changes in expectations.

- As explained in chapter two, private providers come in different shapes and sizes. For example, some providers are focused in delivering academic qualifications, whilst others may focus on lower level key skills training qualifications. Due to the resource restrictions, this study looked at all private providers in the UK as a whole. Therefore, did not specify the type of qualifications they offer. Naturally, the student expectations of those that have studied for a longer term academic qualifications are likely to be different to those that have studied for a short term training qualifications. Even though, this research suggested refinement of service quality dimensions according to student feedback (chapter 10), the study did not specifically looked at different expectations of students at these variety of segments within the sector.

- Despite taking great care in the selection of expert panel and student focus groups, as well as pilot group, improvements can be made in order to have a good and balanced reflection

of the population. For example, the expert panel could have benefited in having an expert from a state university or a college to provide a balanced view of comments. In addition, the student focus group as well as pilot group could have included students from a wider age group to reflect the full population.

The above are some of the limitations identified by the researcher and in no means a full list. Improvements could have been made throughout the research at all stages to make the study more neutral and objective. Similar to other researches, due to various knowledge limitations – for example, discourse analysis - , and limitations in accessing resources lead to these limitations. However, these limitations, naturally lead on to areas of further studies to understand the underlying construct better.

The section below identifies some areas of future studies by the researcher.

- As explained in chapters 9 (A to E), the descriptive statistical analysis provided results showing differences in the mean figures obtained for various age groups, countries of origin, gender as well as number of qualifications studied at a private college. Therefore, further research into this area may provide in-depth understanding of these segments and the likely variations in expectations of students.

- As discussed in the limitations section above, private providers are diverse in their course offering. Therefore, similar research in these individual segments may enable to understand and identify student expectations, as specific to those sectors. For example, student expectations for those studying for academic qualifications, short term training qualifications, professional qualifications and license-to-trade, are few potential areas of investigation.

- This study looked at private providers in the UK as a whole, by investigating into those students that are currently studying or studied for a qualification during the last four years. The findings show a winder picture of the whole sector. However, it would be interesting to investigate whether specific private providers are meeting their student expectations. Therefore, future phenomenological studies involving individual training providers, and how service quality and performance model, developed in this study apply to those individual providers must be researched. Such research will not only enable us to understand the service quality performances of individual providers, but also assist in enhancing the validity and reliability of the survey instrument.

- Further, studies involving this model can be carried out at international locations and overseas private providers to understand the changes in student expectations internationally. Those findings can be compared with the findings in the UK (and other countries) with a view of strategic comparison and developing an overall trend of student expectations internationally. Such findings will not only enable providers that are increasingly become global – as identified in chapter two - , to offer customised services to meet local demands, but also to prioritise their strategic direction and resources globally.

- Finally, this study can also benefit by applying the service quality and performance model at several state funded universities and colleges. Such an application will enable us to compare how student expectations vary from private to state providers and whether those expectations change over time.

As explained by Parasuraman (2004), customer service is no longer an option for organisational survival and growth; it is the key ingredient of organisational survival. Educational institutions, especially private providers, must focus on understanding changes in customer expectations and thrive to not only meet those, but to exceed them. Organisations that have a well-developed strategy, that is customer centric, and focuses on continuous improvement will be able to, not only retain their customers, but also thrive in the ever competitive educational market place.

11.5 Section and chapter conclusion

This chapter focused on revising the purpose of the study, and objective statement as well as the primary and secondary objectives of the research.

As described in this chapter the purpose of the research has been achieved via the identification of the five service quality dimensions, as well as the development of the 22 point measurement instrument.

The responsiveness of the model has been improved by adding an implementation point as well as linking the three parts of the model of a continuous improvement loop to ensure that the model remains current and reflective of changing dynamics of customer expectations.

This chapter also compared the model with three other key models as discussed in the literature review, chapter four, and analysed the differences between the models as well as the development process. The main improvements of the development process were linked to two areas i.e., non-linear involvement of the focus group and the expert panel throughout the study, as well as enhanced responsiveness.

This research further developed an implementation suggestion for private colleges, to capture student feedback on a regular basis and feeding these inputs to a regular management review to ensure the institution takes into account the changing student expectations.

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Appendix

Online questionnaire

Service Quality and Performance – Independent Educational Colleges,

Introduction

Dear Sir/Madam

Customer Survey for:

Service Quality and Performance – Independent Educational Colleges, UK

Firstly may I thank you for taking part in this survey. It is being conducted as a part of a doctoral study, which aims to identify the service quality of privately owned independent colleges in the UK from a students' or customers' point of view.

Please note that you must be at least 17 years of age to take part in this survey.

The statements in this review have been drawn from a preliminary study based on various interviews with students that have chosen to study at an independent college, rather than a publicly funded college or a university. This study showed that students chose Independent Colleges as they are Flexible, Market Driven, Assured, Customer-Focussed and Focussed-Practitioners.

The 22 questions included in this study are designed to find out whether your independent educational college meets your expectations in these respective areas. For each question, you have been given seven options to select one for your feedback. The 23rd question asks you to categorise these areas in order of priority.

Therefore please rate how the Independent College that you have studied at, or are currently studying at, perform against for each of these statements.

If you require further help in understanding a question, please refer to "Supporting Information", which will provide you further details and an explanation of the thinking behind the question.

At the end of the survey there are some questions regarding your profile, such as your gender or whether you are a Home/EU student or an international student.

At no point have I used questions to identify you or any personal details, therefore you and your feedback will remain anonymous.

Please kindly note that all questions are mandatory, and on average this survey will take approx. 10 minutes to complete.

Thank you very much for taking part, your comments are very valuable to me.

Nadith Kawshalya
Doctoral Student at Anglia Ruskin University

www.service-quality.co.uk

Service Quality and Performance – Independent Educational Colleges,

Before taking the survey

*1. Before taking the survey, please kindly confirm that;

a. You are 17 years of age and above;
b. You are currently studying, or have studied at one during the last four years at an Independent College in the UK.

◯ I confirm that I meet the above two conditions   ◯ No, I don't meet the above conditions

Flexibility

Supporting information:

Our initial survey showed that, most British universities and state Colleges, only offer one major start date for degree entry programmes, usually in September. So, if a student missed this entry point, they usually have to wait for an entire academic year to commence their studies. Typically, Independent Colleges offer several start dates throughout the year, meaning students that have missed a particular start date don't have to wait too long for another opportunity to start their study programme.

*2. My College offers regular start dates throughout the year, so I can start my study programme without having to wait too long.

○ Strongly Disagree   ○ Disagree   ○ Disagree somewhat   ○ Undecided/neutral   ○ Agree somewhat   ○ Agree   ○ Strongly Agree

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Service Quality and Performance – Independent Educational Colleges,

Flexibility

Supporting information:

Our initial survey showed that most British universities and state colleges, only accept standard entry requirements, for example students are require to meet specific English language requirements, such as IELTS and TOEFL requirements as well as specific school leaving qualifications, such as A-Levels, Baccalaureates, and so on. Alternatively, many Independent Colleges accept work experience as well as other non-accredited qualifications as a part of their admission process.

*3. My College offers flexible entry requirements and is willing to accept a variety of evidences, including my relevant work experiences, as a part of my admissions application.

◯ Strongly Disagree   ◯ Disagree   ◯ Disagree Somewhat   ◯ Undecided/neutral   ◯ Agree somewhat   ◯ Agree   ◯ Strongly Agree

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Service Quality and Performance – Independent Educational Colleges,

Flexibility

Supporting information:

Our initial survey showed that most British universities and state colleges require students to complete lengthy application forms and submit confidential references. The usual application processing time is around 8 to 10 weeks. However, many Independent Colleges offer a simple online application process, and admission decisions are made within a couple of days.

*4. The enrolment/admission process of my College is easy to follow.

◯ Strongly Disagree   ◯ Disagree   ◯ Disagree Somewhat   ◯ Undecided/neutral   ◯ Agree Somewhat   ◯ Agree   ◯ Strongly Agree

Flexibility

Supporting information:

Our initial survey showed that most British universities and state colleges are generally located at a single location, and due to their size, these locations tend to be outside business and city centres. Independent Colleges generally use smaller study locations, meaning students can chose to study at a variety of locations that are typically more convenient.

In addition to convenient study locations, many Independent Colleges also offer a variety of study modes such as face to face, online and part time.

When answering this question, please also consider study options that you are eligible to study. For example, if you are an international student and only allowed study as a full time student, think about the choices offered within that category.

*5. I have a choice of different study options, such as full time, part time, online, as well as weekend and evening lessons at easy to access study locations.

◯ Strongly Disagree   ◯ Disagree   ◯ Disagree Somewhat   ◯ Undecided/neutral   ◯ Agree Somewhat   ◯ Agree   ◯ Strongly Agree

Flexibility

Supporting information:

Our initial survey showed that most British universities and state colleges generally implement a lengthy academic and administrative process if a student wishes to change their study mode or their qualification. On the other hand, Independent Colleges follow a simple and easy process if a student decides to change their study mode or the qualification they are studying.

*6. It is easy to switch to a different qualification or study mode, if I found my current qualification is not suitable for me.

○ Strongly Disagree ○ Disagree ○ Disagree Somewhat ○ Undecided/neutral ○ Agree Somewhat ○ Agree ○ Strongly Agree

Service Quality and Performance – Independent Educational Colleges,

Market Driven

Supporting information:

For example, state University tuition fees are set by the government and not competitively driven. However, in the case of Independent Colleges, fees are set by the market and driven by customers. Students are therefore able to compare the prices for various providers and chose the best option that they consider offers them best value for money.

*7. My college's tuition fees are competitive to other similar providers.

◯ Strongly Disagree   ◯ Disagree   ◯ Disagree Somewhat   ◯ Undecided/neutral   ◯ Agree Somewhat   ◯ Agree   ◯ Strongly Agree

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Service Quality and Performance – Independent Educational Colleges,

Market Driven

Supporting information:

Unlike Universities and state Colleges, independent colleges generally offer qualifications which are studied intensively. Usually students don't have lengthy summer holidays and study for their qualification throughout the year. Independent colleges therefore focus of students passing a particular module. In many cases, rather than providing a whole list of essential and recommended reading materials, Independent Colleges usually provide students with one or two key books to read, therefore focusing on passing the exam/assessment at the first attempt.

*8. I have received simple study advice, for example I was made aware of what books to read and what assignments to complete for each subject.

○ Strongly Disagree ○ Disagree ○ Disagree Somewhat ○ Undecided/neutral ○ Agree Somewhat ○ Agree ○ Strongly Agree

Market Driven

Supporting information:

Many Independent Colleges offer flexible payment plans and usually offer students discounts and payment plans. In many instances, such Colleges do not charge extra fees for installment plans. However, many state run Universities and Colleges are very strict with their payment plans.

✱9. My college offers me flexible payment options, such as instalment payment plans, if I need it.

◯ Strongly Disagree ◯ Disagree ◯ Disagree Somewhat ◯ Undecided/neutral ◯ Agree Somewhat ◯ Agree ◯ Strongly Agree

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Market Driven

Supporting information:

Due to the smaller size of many Independent Colleges, students usually have access to staff without necessarily having to book an appointment. Students can approach tutors as well as non-academic staff and seek advice, if necessary.

*10. I was offered (or have access to) extra support, for both academic and non-academic matters.

◯ Strongly Disagree   ◯ Disagree   ◯ Disagree Somewhat   ◯ Undecided/neutral   ◯ Agree Somewhat   ◯ Agree   ◯ Strongly Agree

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Assurance

Supporting information:

Qualifications offered by Independent Colleges are awarded by a recognised awarding body or a University. This is mainly because Independent Colleges don't usually have the ability to offer their own qualifications, such as a University or a state funded College.

*11. All qualifications offered by my education institution are accredited and approved by a recognised awarding body or a university.

◯ Strongly Disagree ◯ Disagree ◯ Disagree Somewhat ◯ Undecided/neutral ◯ Agree Somewhat ◯ Agree ◯ Strongly Agree

Assurance

Supporting information:

Independent Colleges are in most cases commercial organisations. As a result, they focus on students passing examinations set by external awarding bodies as this is what their fee paying students expect. Courses are designed and concentrated on examination/assessment technique from the beginning.

*12. From the beginning of my course, my lecturers and tutors focused on passing the examination/assessment for my qualification.

◯ Strongly Disagree   ◯ Disagree   ◯ Disagree Somewhat   ◯ Undecided/neutral   ◯ Agree Somewhat   ◯ Agree   ◯ Strongly Agree

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Assurance

Supporting information:

Most Independent Colleges work in partnership with Universities to offer students advance entry. For example, you can study for an accredited Diploma qualification at an independent college and then use that qualification to gain exemptions at a University.

*13. My college offered me options to further my studies by either studying for a higher level qualification or transferring to a University degree qualifications, such as a "top up" degree.

○ Strongly Disagree   ○ Disagree   ○ Disagree Somewhat   ○ Undecided/neutral   ○ Agree Somewhat   ○ Agree   ○ Strongly Agree

Service Quality and Performance – Independent Educational Colleges,

Assurance

Supporting information:

There are several bodies that offer accreditation services to Independent Colleges. For example Independent Colleges that are planning to recruit students from Non-EU countries are required to be approved by the UK Border Agency as an Educational Sponsor and Quality Assurance Agency's or Independent Schools Inspectorate. On the other hand, Independent Colleges can also be accredited by organisations such as awarding bodies, Universities, the British Council, British Accreditation Council and so on.

*14. My college holds relevant approvals and accreditations to offer qualifications, for example the accreditation from an awarding body, or university.

◯ Strongly Disagree   ◯ Disagree   ◯ Disagree Somewhat   ◯ Undecided/neutral   ◯ Agree Somewhat   ◯ Agree   ◯ Strongly Agree

350

Assurance

Supporting information:

For example, there are several UK Universities that offer over 800 qualifications in very diverse areas, but many independent colleges offer only a few qualifications in specialist areas and focus in those areas. For example, most Independent Colleges focus on Business related subjects or English language training, rather than offering a wider range of qualifications.

*15. I'm concerned as my College only offers a limited number of specialist qualifications, as I would prefer to have a wide variety of diverse qualifications to choose from.

○ Strongly Disagree ○ Disagree ○ Disagree Somewhat ○ Undecided/neutral ○ Agree Somewhat ○ Agree ○ Strongly Agree

Service Quality and Performance – Independent Educational Colleges,

Customer Focus

Supporting information:

Many Universities and state Colleges use large lecture theaters and deliver lectures for large groups of students. On the other hand, Independent Colleges focus on smaller class sizes,. This format allows students to approach their lecturer and ask questions during a lecture.

*16. The class sizes of my college are relatively small, so I've had plenty of opportunities to ask questions from my lecturers and tutors.

○ Strongly Disagree ○ Disagree ○ Disagree Somewhat ○ Undecided/neutral ○ Agree Somewhat ○ Agree ○ Strongly Agree

Customer Focus

Supporting information:

Most Universities and State Colleges have large physical evidence, such as libraries. On the contrary, Independent Colleges have various study locations and smaller premises. As a result, Independent Colleges usually focus on providing students with access to online resources and encourage students to use world wide web (www) resources to aid their studies.

*17. I was given access to study facilities such as online resources, so I can study even when I'm not in the College.

○ Strongly Disagree   ○ Disagree   ○ Disagree Somewhat   ○ Undecided/neutral   ○ Agree Somewhat   ○ Agree   ○ Strongly Agree

353

Customer Focus

Supporting information:

Many Independent Colleges allow students to communicate with their staff members via modern communication forms, such as Facebook, twitter, Skype as well as mobile phones. For example, if a student requires an enrollment confirmation letter for any purpose, they can simply request that via email, whereas at a University students may be required to request this in person.

✱18. I can contact both academic and non-academic staff members via email, Skype or Facebook or on mobile.

◯ Strongly Disagree   ◯ Disagree   ◯ Disagree Somewhat   ◯ Undecided/neutral   ◯ Agree Somewhat   ◯ Agree   ◯ Strongly Agree

354

Customer Focus

Supporting information:

Due to the reliance of working with external awarding bodies, Independent Colleges usually assist students in registering with their respective qualifications provider/awarding body. In many cases, Independent Colleges collect certificates from awarding bodies and distribute to students as well. In some cases, Independent Colleges collect the respective registration and membership fees on behalf of their students and pay to awarding bodies, to make the process simpler to students.

*19. My educational institution offers assistance in registering with my qualification awarding body.

◯ Strongly Disagree　◯ Disagree　◯ Disagree Somewhat　◯ Undecided/neutral　◯ Agree Somewhat　◯ Agree　◯ Strongly Agree

355

Supporting information:

Many lecturers who work at Independent Colleges have several years of practical work experience, and are not necessarily academics. Many lecturers usually teach on a consultancy or part-time basis. As such, lecturers are more likely to share their own experiences with students and use those to explain complex theories.

*20. My lecturers and tutors have a good level of practical work experience and they always take their own work experience to explain difficult theories.

○ Strongly Disagree   ○ Disagree   ○ Disagree Somewhat   ○ Undecided/neutral   ○ Agree Somewhat   ○ Agree   ○ Strongly Agree

356

Supporting information:

Many Independent Colleges offer qualifications that are either leading to a professional qualification or an academic qualification, usually up to a Master's degree. Therefore, Independent Colleges usually don't have a research profile, like Universities. For example, a typical university may offer qualifications ranging from business to medicine and engineering. However typically, an Independent College will only focus on just one or two subject areas.

*21. I'm concerned that my educational institution does not have a wider range of research interests, such as Universities.

- ◯ Strongly Disagree
- ◯ Disagree
- ◯ Disagree Somewhat
- ◯ Undecided/neutral
- ◯ Agree Somewhat
- ◯ Agree
- ◯ Strongly Agree

Focused Practitioners

Supporting information:

Most Independent Colleges are small businesses therefore they tend to have a flatter and open business structure. This means that students can often have access to key personnel within the college without having to go through a bureaucratic appointment process to meet such key personnel, as they might in a University.

*22. It is easy for me to contact key personnel in the College if I have any issues or complaints, and I do not necessarily have to make appointments in advance to meet most of the staff.

◯ Strongly Disagree ◯ Disagree ◯ Disagree Somewhat ◯ Undecided/neutral ◯ Agree Somewhat ◯ Agree ◯ Strongly Agree

*23. What is your student status?

◯ I am a: Home -EU student or a non-visa student

◯ I am an International student requiring a visa to study in the UK

Supporting information:

Many independent Colleges use educational agents to support international student admissions. As a result, they tend to offer advice and assistance on completing visa application forms as well as guidance in submitting application forms for visa renewals.

24. For international students:

I was given advice and guidance on how to apply for my student visas.

○ Strongly disagree   ○ Disagree   ○ Disagree somewhat   ○ Undecided/neutral   ○ Agree somewhat   ○ Agree   ○ Strongly Agree

360

Supporting information:

If you are a home/EU student and funded by a scheme that supports small businesses such as Business link, independent Colleges usually support your application and work around the course schedule to meet funding requirements.

25. For Home students:

I was given assistance on my funding application or offered flexible payment terms.

- ◯ Strongly disagree
- ◯ Disagree
- ◯ Disagree somewhat
- ◯ Undecided/neutral
- ◯ Agree somewhat
- ◯ Agree
- ◯ Strongly Agree

Focused Practitioners

*26. Now, please put the following five categories in the order of importance to you. (1 = Most Important and 5 = Least Important)

☐	Flexible
☐	Market Driven
☐	Assured
☐	Customer-Focussed
☐	Focussed-Practitioners

Service Quality and Performance – Independent Educational Colleges,

General Information

Finally, please answer the following three questions to understand your profile. This information will enable us to identify how your personal profile links to your service quality expectations.

27. What is your gender?

◯ Male

◯ Female

General Information

28. Number of courses I have studied at Independent Colleges during the past three years

◯ One qualifications (this is the one that you are studying now)

◯ Two or more qualifications

General Information

29. What is your age?

- ◯ 21 and Under
- ◯ 22 to 34
- ◯ 35 to 44
- ◯ 45 to 54
- ◯ 55 to 64
- ◯ 65 and Over