

IMPROVING STUDENT  
SATISFACTION AT A CARIBBEAN  
UNIVERSITY USING A CUSTOMER  
FOCUSSED STRATEGY

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UNIVERSITY USING A CUSTOMER FOCUSED STRATEGY

Jacqueline Ann Murray

A thesis submitted in partial fulfilment of the requirements of  
Edinburgh Napier University, for the award of Doctor of Business  
Administration

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## DECLARATION

I declare that this Doctor of Business Administration thesis, has not been submitted for any other degree or professional qualification, is all my work and does not contain any unacknowledged work of another.

A handwritten signature in blue ink that reads "Jacqueline Murray". The signature is written in a cursive style and is placed on a light-colored rectangular background.

.....

Jacqueline Ann Murray

2018/06/08

## **ABSTRACT**

The study aimed to determine the drivers of student satisfaction with the services offered by a Caribbean university. The study, premised on the marketing concept of customer satisfaction, used the Expectation Disconfirmation Model, a widely used tool, to operationalise the study. The study sought to determine (i) the level of customer (student) satisfaction with the services offered by a Caribbean university; (ii) the factors that influence customer (student) satisfaction level with the services offered by a Caribbean university; (iii) to provide management of the Caribbean university with a means through which the business performance of the institution might be improved and (iv) to identify the conceptual link between a Caribbean university and students' perception of the service it offers.

Weighted Importance Scores, Gap Scores, and Overall Satisfaction Scores were computed on the data obtained from 512 students across the two campuses of the university. The analysis revealed that the majority of students were more dissatisfied rather than satisfied with the services and service providers of the university and that students' overall view of the services was poor or fair and that of the service providers more fair than poor. There were, however, instances where students were satisfied or delighted with the services provided by the university.

The study uncovered thirteen dimensions - Attitude, Setting, Tangibles, Deliverables, Copying Facilities, Ergonomics, Utilities Responsiveness, Reliability, Security, Communication, Value for Money, Credibility - which drove student satisfaction. Two emergent dimensions, "Value for Money" and "Credibility", could be considered overarching drivers of students' satisfaction.

The findings have implications for practice since it was able to leverage the marketing theory of customer satisfaction on students at higher education and use the Expectation Disconfirmation Theory to model and ascertain student satisfaction. The study was able to identify dimensions and concomitant factors of importance to students on which the university could direct improvement efforts. The study lays claim to originality owing to the uniqueness of the model and the sample used in the study to ascertain drivers of student satisfaction at higher education.

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## Chapter 1 INTRODUCTION

### **1. Background**

The study aimed to determine the drivers of Customer (student) satisfaction with the services offered by a Caribbean university. The university is a public institution of higher education mainly funded by government subventions and tuition fees. The adequacy of the funding received from the government and tuition and fees paid by students became questionable when the Bursar reported that the University had amassed a debt of approximately \$250, 000, 000 of the Caribbean country currency (Caribbean News, 2013). The university for three consecutive months had been unable to meet the agreed-upon payment dates for salaries owing to insufficient funds (Kaieteur News, 2014). Consequently, the university decided that the time had come to raise tuition fees which had remained unchanged since 1994 when they were re-instituted. Accordingly, proposals were made to increase tuition fees to the equivalent country's dollars of US\$1, 000.

At a consultation with students on June 24, 2014, at a campus of the university concerning the proposed increase in tuition fees, a student, to the thunderous applause of others, repeatedly enquired whether the university could not find "a little better plan than to raise fees?" However, reports were that the students present at the consultation had mixed reactions concerning the proposed fee rise and demanded guarantees that the quality and conditions of learning would improve within specific time frames (Chabrol, 2014; Stabroek News Advertising, 2014). At the consultation on June 27, 2014, at another campus, some students appeared opposed to the idea of paying an increase in the tuition fees. One of the students who expressed this felt that he should not be paying the cost of "bad management."

Before these events, Civil Society (2000), in the National Development Strategy 2001 - 2010, cited inadequate resources - physical and financial - as some of the inhibitors to the performance of the university underscored the need for the university to garner more financial resources and to efficiently

utilise existing resources. That there is a need for the university to accumulate sufficient funds appears not to be the contention, but whether the means should be through the increasing of tuition fees.

The assertion of students for increases in tuition to be followed by improvement in the quality and conditions of learning is reflective of the Douglas et al. (2014) view that 'Value for Money' was primarily linked to the support services at higher education and supported by Woodall et al. (2014) finding that a significant relationship exists between students' net value and the overall satisfaction of students. Bennett (2001) opined that it is essential for universities to be concerned about the measurement of value added since it assesses the quality of the learning students receive in the education process. Liu (2011) cautions against using value-added measures as an indicator of institutional efficiency given that student learning is a composite of controllable institutional factors and uncontrollable intrinsic student factors. The argument of Lui (2011) is outweighed by Bennet (2001) since higher education institutions have to justify increased costs to stakeholders. Additionally, the motivation of students to learn could be impacted positively or negatively by the teacher.

Authors such as Livingston (1993) and Heskett et al. (2008) posited that a relationship exists between customer satisfaction and improved business performance and empirical research by Hallowell (1996) and Kamakura, et al. (2002) confirmed the link. Livingston (1993) believed that organisations could improve profits by reducing costs or increasing revenue, but there are limits to cost reduction strategies. He suggests that the way to increase revenue is to raise demand or prices and that improving customer satisfaction could overcome resistance to price increases. The Expectation Disconfirmation Theory, a theory of customer satisfaction, posits that customers form judgments about a product/service before use and compare them with the actual product/service received. When the performance of the product/service match the perceived performance, the customer is satisfied and when the converse is experienced dissatisfaction occurs (Oliver, 1977; Oliver, 1980; Spreng, et al., 1996).



Mark (2013) believes that students are customers of the university and that having a customer focus and viewing education as a service rather than a product at higher education, enables the institution to improve the quality of the education they deliver and remain a going concern in the face of rising competition. Parsell (2000) and Wood (2007) disagree with the student as customer concept. Parsell (2000) because education is not a commodity for sale at the lowest cost and Wood (2007) that it is an inappropriate descriptor for students. Ng and Forbes (2009) note that where students are not engaged in the pursuit of higher education for academic or vocational purposes but do so as a means of certification for a better job, then education is a cost and not a benefit. That the students of the Caribbean university view the acquisition of university education as a service for which they are paying, a cost is evident in their demands that in the face of rising tuition that the quality of the services provided to them should also improve. There is an ongoing debate on the conceptualisation of education as a service owing to the unique characteristics of educational institutions. Before accessing a university education, the screening of students occurs and assessing of them at the end to ascertain their level of achievement takes place, unlike the customers of other service industries, thus making them partners in the assurance of quality (Ng & Forbes, 2009). Lovelock (1983) advanced that characterising services at higher education as the tangible actions which physically affect students and intangible activities aimed at the mind is possible owing to the nature of the service act. Lovelock (1983) also points out that a mindset that service industries are different and hence require different service strategies militate against "useful cross-fertilisation of concepts and strategies" (Lovelock, 1983, p. 10).

The associations theorised and established in the literature between customer satisfaction and improved business performance prompted the researcher to investigate the satisfaction level of students with the hope that unearthing the areas of importance to students and improving them might make them more amenable to the proposed tuition fee increase thereby allowing the university to improve its business performance. This study transcended the mindset that different service industries

required different service strategies and used marketing theories, procedures, and concepts to develop a model for ascertaining customer satisfaction at higher education. Conceptualising the university as an entity which provides tangible and intangible services, leveraging the customer concept on students, employing the Expectation Disconfirmation Theory and adapting the equations developed by Elliot and Shin (2002), cited at 3.4 to specify the model were the enabling activities for the provision of answers to the research questions at 1.5 in the study.

The Conceptual Framework (Figure 1.1) depicts the variables identified as pertinent to the study, the participants in the study, the theorised and empirical relationship established in the literature between customer satisfaction and improved business performance and the measures of student satisfaction.

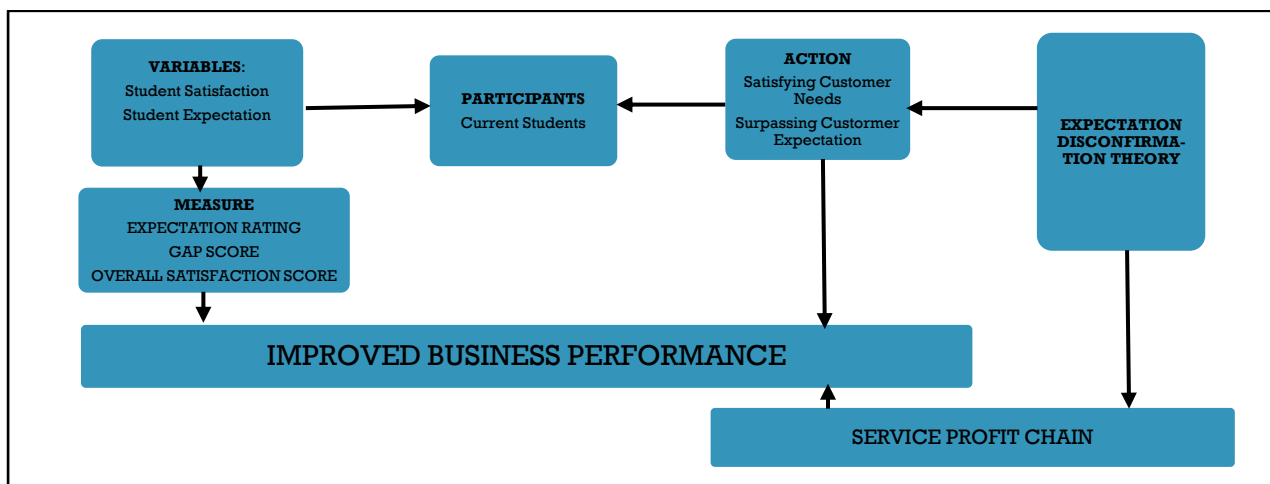


Figure 1.1: Conceptual Framework depicting theorised and empirical relationship between customer satisfaction and improved business performance

Source: Own developed from the literature

The study did not try to establish relationships between the variables but instead concentrated on the ascertainment of the drivers of customer satisfaction. It was the belief that the uncovering of the drivers will enable the university to focus improvement efforts on variables of importance to the customers (students) thereby possibly achieving, in the long run, the associated benefit of improved business performance.

The chapter provides the sector context of the study; examines the debate and views concerning the funding of higher education, identifies the challenges faced by the management of the university;

specifies the research aim, objectives and questions; defines relevant terms germane to the study and provides a map of the subsequent chapters.

## **1.1 Sector Context**

The research occurred in a small developing country with a population of approximately 735,554 (Central Intelligence Agency, 2014). Its education system dates to 1685, the time of the Dutch rule and the arrival of a religious instructor in the largest county. During the 17<sup>th</sup> and 18<sup>th</sup> century, plantation owners sent their children to Europe to study so local education developed slowly. The 19<sup>th</sup> century saw the birth of private schools and academies for the children of prospering non-British colonists. The first known referenced public school was established in the early 1800s (US Library of Congress, n.d.). After the cessation of slavery in 1838, many Africans quickly made use of the educational opportunities open to them. By 1841 there were 101 elementary schools, most of them under the direction of the London Missionary Society. A teacher-training school and a college opened in the 1850s. Primary education became compulsory in 1876. Despite this, however, in 1904 an ethnic group was exempt from not educating their daughters, on religious grounds. In 1933 leaders of the ethnic group succeeded in changing the government policy (US Library of Congress, n.d.).

For most of the colonial period, restricting secondary education was to the upper and middle classes took place. Secondary education was paid for by parents and few through scholarships. Consequently, most of the students who completed primary school were excluded from a secondary education because of inability to pay (US Library of Congress, n.d.).

The development of the colonial school system was guided by the philosophy of elitism and secondary education as a way of preparing the elite for their role in society. At that time, the city of the country boasted two of the best secondary schools, Queen's College and Bishop's High School to which the elite went. The schools are still in existence today. The curricula and methods employed in the schools were the same as those used in British "public" schools. During most of the colonial period, there was

little interest either in vocational training or in expanding educational opportunities (US Library of Congress, n.d.).

In 1961 many new secondary schools were opened, especially in rural areas. Established In 1963 was the Caribbean university (US Library of Congress, n.d.), and in 1964 the payment of fees was abolished in all government secondary schools (Ishmael, 2012). Students at the Caribbean university paid G\$100 per annum for tuition fees until its abolishment in 1974 (Caribbean Live.com, 2010).

### **1.1.1 Post-Colonial Education System**

The post-colonial education system in the Caribbean country initially was characterised by the absence of fees. From 1971 to 1985 education was based on the concept of cooperative socialism and involved the nationalisation of private schools and free mass education. (Ainsworth, 2013). During this era, education was provided free of cost by the Government of the Caribbean Country to all citizens from Nursery to University and became a public good perceived as an entitlement (National Development Strategy Secretariat, 1996). A change in government in 1992 saw a reversal of nationalisation to de-regulation, de-centralisation, and privatisation (Ainsworth, 2013). In the academic year 1994/1995, the Government of the Caribbean country re-introduced the payment of tuition fees for university education. The cost of tuition was G \$127,000 (US \$1,000) per annum except for those pursuing studies in Law, Medicine, Nursing and Tourism, where the fees were G\$300, 000, G\$500, 000, G\$251, 000 and G\$158, 000 respectively. The prices while higher for non-residents and international students (Caribbean Live.com, 2010) were well below what is paid internationally for similar programmes.

The school system is administered and supervised by the Ministry of Education under the guidance of the Minister of Education, who is held responsible for education policy and administration in the country and is a member of the Parliament (Caribbean: Land of Six Peoples, n.d.). Figure 1.2 illustrates the Education System in Caribbean country.

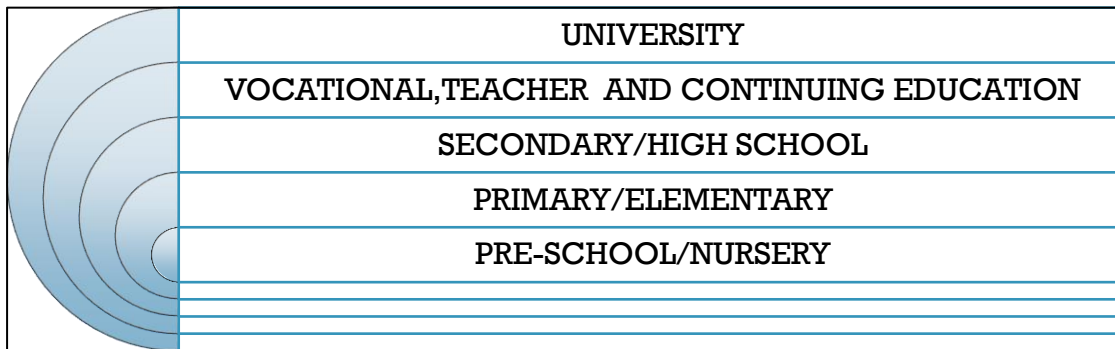


Figure 1.2: Education System in Caribbean Country

Source: Own based on the literature reviewed

University education is provided by the state-owned entity which is the only major public institution of higher learning in the Caribbean country. The university was launched on October 1, 1963, following assent on April 18, 1963, by Governor, Sir Ralph Grey. When it opened its doors on October 2, 1963, the university functioned as an evening institution with only 164 students enrolled for classes in three Faculties of Arts, Natural Sciences and Social Sciences. Classes were held between 17:30 hours and 21:30 hours at the Government Technical Institute and Queens College, where laboratory facilities could be shared. Today the University sits on 1450 acres of land donated by the Booker Group of Companies (Caribbean Live.com, 2010). The university currently offers undergraduate programmes in the Faculties of Agriculture and Forestry, Education, and Humanities; Health Sciences, Natural Sciences, Social Sciences and Technology; and School of Earth and Environmental Sciences. The School of Earth and Environmental Sciences, Faculties of Education and Humanities, Health Sciences, Natural Sciences and Social Sciences offer postgraduate programmes. In the Academic Year 2014/2015, the Caribbean university launched its Online Programme. Enrolment at its first Campus during this period approximates 6,145 students (Caribbean university, 2015).

In November 2000, the University opened another Campus. At that time, the Campus offered two-year undergraduate Certificate programmes in Education, Diploma programmes in Accountancy, Marketing, Public Management, Social Work, English and History, and the Post-Graduate Diploma in

Education. For the 2001-2002 academic year, the following were the additions to programmes: Degree in Agriculture, Associate Degree in General Science, with options in Biology, Chemistry, Mathematics and Physics, and a Diploma in Computer Science (Caribbean Live.com, 2010). Today the campus continues to offer two-year undergraduate programmes in the Divisions of Education and Humanities, Natural Sciences and Social Sciences. There is a lack of bachelor's degree offerings. Students desirous of pursuing these can apply to the first campus, which offers a broader range of programmes or do so in the Division of Agriculture, which provides a four-year degree - the Degree in Agriculture. The Division of Social Sciences offers the Degree in Public Management, the Division of Natural Sciences, the Degree in Biology and the Division of Education and Humanities, the Bachelor of Education in English. The current student population of the second campus currently stands at approximately 652 (Caribbean university, 2015).

The staff of the Caribbean university falls into the categories: UA Academic (full time: teaching and library); UA Non-Academic and UB (support staff). Table 1.1 below provides the statistics concerning these categories for the Academic Years 2013/2014 and 2014/2015.

*Table 1.1: Caribbean University Staff by Category*

CATEGORY OF STAFF	Academic Year 2013/2014	Academic Year 2014/2015
UA Academic: Full-Time Teaching	256	253
UA Academic: Full-Time Library	20	17
UA Non-Academic	47	49
UB Support Staff	362	329

Source: Caribbean university (2015)

The government provides the Vocational Education at Government Technical Institutes, Government Industrial Training Colleges, the School of Agriculture and the Carnegie School of Home Economics in areas such as commerce, home economics, automotive mechanics, agro studies, business, engineering, architecture and other technical fields. Additionally, the Government of the Caribbean

also provides Special Education to provide training for persons with special needs. Private schools offer studies in commerce and business (Caribbean: Land of Six Peoples, n.d.).

### **1.1.2 Current Education Policy**

The National Development Strategy (2001-2010) identifies five general objectives of the current Education Policy in the Caribbean country:

(i) *Improving equality of access to education*

The intention is for everyone to have access to schooling geographically and socio-economically by providing the means to accomplish this. Emphasis is the provision of facilities in the hinterland region and the delivery of education to children with special needs.

(ii) *Making the curriculum more demand driven rather than supply pushed*

The idea is for the curriculum to be reflective of the needs of society and the labour market. The intention is that this will make it possible for persons to acquire knowledge, skills, attitudes, and values that will enable them to contribute to national development meaningfully.

(iii) *Improving the efficiency and effectiveness of the system through managerial, supervisory and administrative capacities of the system*

Elements of this objective are the efficient management of all resources through strategic planning, the establishment of reliable databases, development of procedural manuals for managers at all levels of the system, and the professionalisation of education at the school level.

(iv) *Providing a well-trained, qualified cadre of educational personnel*

The focus of this objective is the expansion of the in-service teacher training centres; the use of distance education to improve the quality and quantity of teachers in the hinterland and deep-riverain areas; the re-institution of career path development for all teachers and administrators in the system through on-the-job training and the enhancement of work conditions.

- (v) *Cultivating and strengthening community alliances with the aim of establishing and maintaining productive relationships with the local and extra-local communities, for the express purpose of mobilising the requisite resources to complement budgetary allocations*

These activities would allow for the expansion of school programmes, greater security of buildings, better management of educational assets in the community, and in general, the undertaking of joint efforts in the pursuit of quality education.

Indicative of the current education policy are objectives with emphasis on the school system. There are no objectives referencing university education. Notwithstanding this, the objectives have applicability for the Caribbean University. For example, objective (i) indicates that a person's socioeconomic status should not be a barrier to accessing education. Clearly, in an era where tuition fees play a critical role in obtaining an education at the university, a person of low socioeconomic status might very well consider this to be a barrier especially in the face of rising tuition fees. Objective (ii) identifies a demand-driven curriculum as a means through which an institution can meet the needs of stakeholders. Considering the financial constraints of the university, fashioning programmes/courses to meet societal and national needs might be one way to increase revenue by increasing the demand for its products (Livingston, 1993). Objective (iii) regards the efficient management of all resources by lower, middle and upper management as a medium through which the education system can improve. While this objective has much applicability for the Caribbean university as it seeks to make itself viable in the face of the shortage of resources at its disposal, it does not address the agenda of students to have improvements in the quality of services (tangible and intangible) provided to them. The provision of a team of a qualified cadre of educational personnel identified by Objective (iv) is also pertinent for the university to deliver the kind and quality of education required by its stakeholders. Considering the scarcity of the resources available to the university, Objective (v) suggests that forming strategic alliances, locally and internationally, could mitigate in this regard.



## **1.2 The Funding Debate**

The financial constraints elucidated at 1.1 which lead to proposals to increase tuition fees elicited a moral debate. The Pro-Chancellor while agreeing that the Caribbean university was short of funds, disagreed with the proposed increase since this might affect some students' rights to have equality of access to higher education. He believed that it was crucial for the university to find other means of funding since a student should not be denied access owing to economic circumstances (Kaieteur News, 2014). The sentiments of the Pro-Chancellor are echoed in the Education Policy of the country of the Caribbean university and somewhat parallels the UNICEF's commitment for children to have access to free, compulsory and quality education irrespective of gender or socioeconomic status (UNICEF, 2011). The right to education is also enshrined in Article 26 of the Universal Declaration of Human Rights with the qualification that education is free, at least in the earlier stages and higher education equally accessible to all based on merit (Human Rights Education Associates, 1948). Barr (2004) opined that the debates surrounding equity of access to higher education often centers on who should pay – the state or the consumer? However, equality of access does not mean that it should be free. Instead, persons of aptitude should not be denied access because of inability to pay.

The Task Force on Higher Education in Developing Countries pronounced that the state should be the funders of public institutions of higher learning and that such funding should be for a long-term rather than short-term duration. They also recommend using the state, private sector, philanthropic individuals, institutions, and students or some combination of these as a means of financing higher education (The World Bank, 2000).

Funding for higher education at the Caribbean university has taken a somewhat circuitous route. Moving from a place where the payment of fees was expected, to none payment and back to a place where payment is required. The changing requirements and expectations as to who should fund higher education could be attributed to the changing form of political governance of the country which moved from colonialism to socialism to democratisation. Various national and international policies such as

the National Development Strategy (2001 - 2010) and Article 26 of the Universal Declaration of Human Rights with their emphasis on equity of access to education by everyone might have given prominence to the expectation that higher education should be free. Evidently, persons have the right to an education at any level, but at the tertiary level these rights are limited to merit and might not be free. When in 1994 the Government reintroduced the payment of fees as a means of cost recovery the inference could be drawn that higher education was no longer a free good to which persons were entitled. The demand by students for the university to guarantee that the quality and conditions of learning improve should tuition fees rise underscores the need for an investigation into the level of student satisfaction with the services provided by the university. Implicit in students' demand was that a rise in fees was only justified where the intention is to improve the services provided to them.

### **1.3 Research Aim and Objectives**

The research aims to determine drivers of student satisfaction with the services offered by a Caribbean university.

The research objectives aligned with the aim are to:

- RO1** determine the level of customer (student) satisfaction with the services offered by a Caribbean university;
- RO2** identify the factors that influence customer (student) satisfaction level with the services offered by a Caribbean university;
- RO3** provide management of a Caribbean university with a means through which the business performance of the institution might be improved;
- RO4** identify the conceptual link between a Caribbean university and students' perception of the service it offers.

The following were the questions as pertinent to the study which seeks to determine enablers of student satisfaction with the services offered by the Caribbean university.

#### **1.4 Research Questions**

**RQ1** What are students' expectations of the services provided by the Caribbean university?

This question has its roots in the Expectation Disconfirmation Theory. The Weighted Importance Score - the relative importance of an item expressed as a percentage of the sum (Elliot & Shin, 2002), a factor for the achievement of Objective 1, was used to provide answers to this question and enabled the addressing of Objectives 2, 3 and 4.

**RQ2** How satisfied are students with the services provided by the Caribbean university?

This question also has its origin in the Expectation Disconfirmation Theory. A Gap Score and an Overall Satisfaction Score (Elliot & Shin, 2002) were the indices used to answer this question and to address Objectives 1 and 4.

**RQ3** How satisfied are students with the providers of services at the Caribbean university?

A Gap Score and an Overall Satisfaction Score (Elliot & Shin, 2002) modelled on the Expectation Disconfirmation Theory provided the means to answer this question and address Objectives 1, 3 and 4.

#### **1.5 Definitions of Terms Germane to Study**

The following terms are defined here to provide the context used in the study.

- **Business performance** – the financial and non-financial performance, which enables the achievement of the economic goals of an entity (Venkatraman & Ramanujam, 1986).
- **Customer satisfaction** – the perception of the customers (students) regarding the services offered (Praxiom Research Group Limited, 2013).
- **Disconfirmation** – the difference between expectations and actual experiences (Oliver, 1980).

- **Going concern** – the belief that an organisation will not liquidate in the near future (Averkamp, 2004 - 2017).
- **Value** - Zeithaml (1988, p.13) uncovered four definitions of consumer value. These are: "(i) value is low price, (ii) value is whatever I want in a product, (iii) value is the quality I get for the price I pay, and (iv) value is what I get for what I give." Zeithaml (1988, p. 14) combined these four definitions into one - Perceived value - which is the consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given". In building a model of values, Zeithaml (1988) opined that it is important to ascertain which of the many meanings consumers ascribe to value.  
  
In the context of the research where students' response to the proposed increase in tuition and fees was that the quality of the services provided to them should also improve, value is considered "the quality I get for the price I pay" (Zeithaml, 1988, p. 13). This interpretation of value reflects the researcher's use of the term Value for Money - the perceived quality of services received from every sum of money spent in tuition and fees (Adapted from Web Finance, 2016).
- **Students' expectation** – the characteristics and specifications of the services as determined by the customers (Web Finance Inc., 2013).
- **Subvention** – the subsidy received by the Caribbean university from the Government of Caribbean Country.

## 1.6 Structure of Study

Figure 1.3 provides the structure of the study

Chapter 1: Introduction	Chapter 2: Literature Review	Chapter 3: Methodology and Methods	Chapter 4: Findings	Chapter 5: Discussion	Chapter 6: Conclusion and Implications
<ul style="list-style-type: none"> <li>• Background to study</li> <li>• Sector Context</li> <li>• The Funding Debate</li> <li>• The Management Challenges</li> <li>• Research Questions,</li> <li>• Research Aim</li> <li>• Research Objectives</li> <li>• Definition of Terms</li> <li>• Assumptions of Study</li> <li>• Structure of Study</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction</li> <li>• Higher Education</li> <li>• Customer Satisfaction</li> <li>• Customer Satisfaction and Business Performance - The Evidence</li> <li>• Student as Customer Concept</li> <li>• Conclusion</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction</li> <li>• Research Approach</li> <li>• Methodology</li> <li>• Philosophical Approach</li> <li>• Analysis of Data</li> <li>• Justification of Methodology</li> <li>• Limitations of Research Design</li> <li>• Ethical Considerations</li> <li>• Conclusion</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction</li> <li>• Findings</li> <li>• Research Question 1</li> <li>• Research Question 2</li> <li>• Research Question 3</li> <li>• Students' Expectation and Satisfaction by Study Year and Gender</li> <li>• Conclusion</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction</li> <li>• Research Question 1</li> <li>• Research Question 2</li> <li>• Research Question 3</li> <li>• The Aim of the Study</li> <li>• The Conceptual Link between the University and Students' Perception of the Services it Offers</li> <li>• Revisiting the Conceptual Framework</li> <li>• Conclusion</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction</li> <li>• Summary of Findings as per Research Questions and achievement of Objectives</li> <li>• Implications of Study</li> <li>• Contribution to Theory and Directions for Future Research</li> <li>• Contribution to Practice</li> <li>• Limitations of Study</li> <li>• Conclusion</li> <li>• Recommendations</li> </ul>

Figure 1.3: Structure of Study

Source: Own developed according to chapters and themes in the study

## Chapter 2 LITERATURE REVIEW

### **2. Introduction**

The overall aim of the research is to determine the drivers of student satisfaction with the services offered by a Caribbean university.

The objectives of the study are to determine the level of customer (student) satisfaction with the services offered by a Caribbean university; identify the factors that influence customer (student) satisfaction level with the services offered by a Caribbean university; provide management of a Caribbean university with a means through which the business performance of the institution might be improved and identify the conceptual link between a Caribbean university and students' perception of the service it offers.

The literature on Higher Education, particularly as it relates to developing countries, and Marketing which uses the concept of customer satisfaction and the Service-Profit Chain are examined in this chapter. Higher Education because the Caribbean university is a provider of higher education and Marketing since it is associated with the non-financial concept of customer satisfaction as a means of improving the performance of a business. The review of the literature on Higher education considers the importance and purposes of higher education, funding issues, student satisfaction and the pros and cons of leveraging the marketing concept of customer satisfaction on students. The review of the Marketing Literature considers the concepts of customer satisfaction, theories and models of customer satisfaction, the Service-Profit Chain which identifies customer satisfaction as a pivotal driver of the growth and profitability of service entities, and the empirical evidence in support of customer satisfaction models.

### **2.1 Higher Education**

The importance of higher education has been widely acknowledged by individuals, societies and countries the world over. Barr (2004) believes that higher education is vital because of the role it plays in enhancing human capital through the development of skills suited to the technological and

information age and consequential contribution to national development. World Bank (2011) regards higher education as a source of political, social and economic growth; and the knowledge provided in the process of acquiring a higher education, a source of national competitiveness. Kanji, et al. (1999) presents a service-oriented view of higher education; classifying students as the internal and external customers of higher education and education a product. Barnett (2004) observed that authors hold differing views concerning the purposes of higher education, but none really specifies it. Some believe that higher education is “separate from society” and as such exist to serve its own end and others that no other purposes, other than what it was formed to accomplish, exist for the university.

Barnett (2004) posits that the lack of specificity of a philosophy of higher education stems from the interchangeable terms university and higher education and not taking cognisance of the complexity of the environment in which the university must exist. To ably specify the purposes of higher education, the terms "university" and "higher education" should connote different meanings. Additionally, the challenges brought about by globalisation; the arrival of digital technologies; the interpenetration of higher education with the broader host society; agendas of participation, access and equal opportunities; marketisation of higher education, with institutions identifying their knowledge services for potential customers; competition; and the development of systematic and nationwide state-sponsored quality evaluation mechanisms should be considered in elucidating the purposes of higher education. Wæraas and Solbakk (2009) posit that no single definition will encapsulate higher education owing to the individualistic nature of universities and their units.

Barnett (2004) argues that the complexity of the environment of higher education dictates that the university's primary focus can no longer be on the provision of knowledge. The university must embrace the diversities in its environment to once more provide "added value" rather than be what everyone wants it to be and in doing so reclaim its identity. Liu (2011) points out that in the face of increased public spending on tuition and fees, higher education institutions will continue to be called into accountability by stakeholders for such expenditure. Bennett (2001) opined that an assessment of

what students knew at the beginning of a tour of study and what they know at the end enables an institution to determine any value which has been added as a result of the education delivered to them. He notes that the assessment of value added has many challenges owing to the uniqueness of students' capabilities, institutional differences, and the complexity and financial cost of the exercise. Besides, the effect of the education received on students' capabilities may be time-bound and therefore not immediately ascertainable. Schmidt (2002) agrees that the assessment of value added is a complex task and suggests instead that higher education institutions can equate the cost, wholly borne by students with the students' perception of the value of a college education. Bennett (2001) emphasised that universities can no longer remain unconcerned about the measurement of value added since it imputes the quality of the learning students receive in the education process while Liu (2011) perceived that the concept is also used as an indicator of institutional efficiency and cautions against using value-added measures in such a way since student learning is a composite of controllable institutional and uncontrollable intrinsic student factors.

The World Bank (2000) cogitates that the ability of higher education to provide the kind and quality of education necessary for individuals, society and nations of developing countries, to effectively cope with an ever-changing competitive environment, is threatened by the decrease of emphasis on higher education and an increased focus on primary and secondary education further compounded with underfunding. Webb (2010) believes that it was the concentrating on the attributes of importance to stakeholders and the reinforcing of core values that helped the University of Sheffield survive funding cuts in its budget for adult learners.

Globalization and the vast improvements in information and communication technologies have brought with them many challenges for Higher Education Institutions. In responding to these challenges higher education institutions need to become relevant while retaining their "raison d'être." In an era where distance and time no longer pose barriers to foreign competition, identifying the purpose(s) of higher education appears critical to the survival of such institutions as they seek to



provide the kind and quality of education necessary for social, economic and national development and competitiveness. The purpose of higher education institutions, such as the one which is the foci of this study, appear to exceed that of providing knowledge. The assertion by students of the Caribbean university that an increase in tuition fees is only justifiable where there are improvements in the quality of services delivered to them suggest they perceive education as a service good and that a purpose of HEIs is to provide that service. Indicative of the assertion of students is that they should receive value for money when the cost of tuition rises.

While HEIs use value-added measures to ascertain improvements in teaching and learning and measure efficiency in the use of resources, the assertion by students that the services provided to them be improved appear to encompass much more than teaching and learning and suggest some level of dissatisfaction with the service offering. Given that the underfunding of public institutions of higher education in developed and developing countries curtails their ability to achieve their mission efficiently, a Higher Education Institution such as the Caribbean university which is the foci of this study, could very well find itself in a position where it is unable to provide the kind of services valued by its stakeholders. In the face of resistance to increases in the cost of tuition and fees, it is apposite for HEIs to identify gaps in the services provided by them upon which to direct improvement efforts. A focus on the dimensions of importance to stakeholders of the Caribbean university might help them to give the kind and quality of service required by their customers – the students and make them more amenable to paying increases in tuition and fees.

The critical issue, irrespective of defined purposes of higher education, core values and who funds higher education, appears to be that students should leave HEIs better off than they came in, i.e., value should have been added to them. Value from the perspective of the students of the Caribbean university appear related to the quality of the tangible and non-tangible services provided to them and is inferred from their demand that a rise in tuition fee should parallel improvements in the quality of services offered to them. That they view the education provided at higher education as a service good and that

the service had not lived up to their expectation is also implicit in their demand. In an era where the business performance of the Caribbean university might be described as below par, a determination of students' satisfaction with the services provided to them could uncover areas upon which to direct improvement efforts and consequently allow for improvements in student/customer satisfaction.

## **2.2 Customer Satisfaction**

The Marketing Literature on service quality provides theoretical and evidential support of the relationship between customer satisfaction and improved business performance. The perception of students of the Caribbean university that in accessing a higher education that they receive service suggests that the marketing concept of customer satisfaction could be leveraged on students at higher education. The theory is that satisfied customers, in the context of this study satisfied students, will pay the asking price – increases in tuition and fees – which in turn will impact the business performance of the Caribbean university. Consequently, this section examines the perspectives of customer satisfaction, customer satisfaction theories, customer satisfaction and improved business performance models, and the evidence in support of the relationship between customer satisfaction and business performance.

Satisfaction is the consumer's fulfilment response. It is a judgement that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfilment, including levels of under -or over-fulfilment Oliver (1977) as cited in Hom (2000, p. 102). In her seminal article "Breaking Free from Product Marketing" Shostack (1977) posited that consumer satisfaction with a service is influenced by the setting in which the service is experienced and the personnel providing the service while their judgement of a product is the result of use. As such, service consumers will have different emphases of importance to them, which the marketer should try to ascertain owing to their effect on consumer perception. Herzberg et al. (2017) found that dissatisfaction in individuals occurred as a result of a bad environment (hygiene factor) while satisfaction was related to the tasks which individuals had to perform. For Herzberg, et al. (2017) satisfaction and

dissatisfaction were not opposite ends of the continuum. They uncovered that the remedying of dissatisfiers related to hygiene factors did not lead to an individual (customer) who was satisfied, but rather to one who was no longer dissatisfied. They believed that Motivation Factors had the potential to become hygiene factors when absent from jobs. Herzberg et al. (2017) present Achievement, Recognition for Achievement, Work itself, Responsibility, Advancement, and Growth – New Learning as motivators of satisfaction (satisfiers) to individuals in their quest to self-actualise. Supervision, Interpersonal Relations, Physical Working Conditions, Salary, Company Policies and Administrative Practices, Benefits, and Job Security when unfavourable are identified as the enablers of dissatisfaction. Sibley et al. (1992) opined that in an ever-increasing competitive landscape customer satisfaction is a vital component of the measurement of the performance of a business. However, many businesses continue to use old productivity measures such as profits, sales, market share, return on investment, return on assets, and earnings per share.

The environment of Higher Education Institutions influences them. With the advent of globalisation and its concomitants, HEIs have found themselves in an environment that has become extremely competitive (Barnett, 2004) with calls from customers that HEIs account for the quality of the services provided to them (Liu, 2011). Customers of the Caribbean university appear insistent that in the face of rising tuition and fees that the quality of services provided to them be improved to merit the increases. To account for increased spending, HEIs derive performance measures to assess the quality of education delivered by them. Soutar and McNeil (1996) opined that providing such measures usually pose a difficulty for HEIs since these institutions use quantifiable measures such as numbers of students and educators, people ratios, flows of money into the system and applications within the system. These measures, Soutar and McNeil (1996) advance, do not allow for a comprehensive measure of the quality of education provided. Kanagaretnam et al. (2003) theorise that factors such as student quality, class size, and student risk aversion to grades while university specific also impact student satisfaction hence should be considered in assessing the quality of education. They note that

while student evaluations could lead to actions which result in improvements in teaching and learning that overuse of them could result in the converse. Professors in order to improve student satisfaction might resort to soft marking which ultimately leads to low student learning. Had the university ignored the student complaints, even in the face of little teaching, the result might have been better.

Customer satisfaction concerning the service they receive is posited to be connected to student and teacher factors, service providers and the setting in which the service is delivered. Determining the satisfaction of students with the environment and the personnel providing the services appear pertinent to the study. Two questions congruous to these variables are: (i) How satisfied are students with the services provided by the Caribbean university? (ii) How satisfied are students with the providers of services at the Caribbean university?

The student as customer construal taken by the research suggests that an investigation into students' satisfaction using a marketing approach could allow for a more modern way of assessing the performance of higher education institutions as it relates to the factors within their control, in particular, the Caribbean university which is the foci of this study.

### **2.2.1 Customer Satisfaction Theories**

Customer satisfaction theories posit that a relationship exists between the satisfaction derived from a good/service by a consumer and the profitability of an organisation. Hom (2000) offers what he calls micro and macro models of customer satisfaction. The micro models proffered by Hom (2000) as cited in Erevelles and Leavitt (1992) concern themselves with the measurement of customer satisfaction and are identified as disconfirmation of expectation, perceived performance, norm, multiple process, attribution, affective and equity. The Expectation Disconfirmation Model (Figure 2.1), a widely used model in determining customer satisfaction (Hom, 2000), theorises that customers form perceptions about a product/service prior to use and compares this perception to actual performance of the product/service experience resulting in the feeling of satisfaction or dissatisfaction with the

product/service (Hom, 2000; Oliver, 1980; Spreng, et al., 1996) which in turn affect repurchase intentions (Venkatesh & Goyal, 2010). Parasuraman, et al. (1985) believe that meeting and exceeding customer expectations is pivotal to ensuring good service quality which Parasuraman, et al. (1991) found is viewed by the by the customer as contingent on higher prices paid and lower prices, not a reason for decreasing the quality of service. Parasuraman, et al. (1991) believe the process dimension could be used to overcome breakdowns in service given the low expectations of customers regarding the dimension.

The perceived performance model, Hom (2000) as cited in Erevelles and Leavitt (1992), sees customers' prior perception negated in the formation of satisfaction, especially in cases where the positive experiences emanate from the product/services. In the norm model, Hom (2000) as cited in Erevelles and Leavitt (1992), the customer uses a standard (what should be) as a means of comparison with their experience of a product/service. With the multiple process model, the customer uses many standards with which to compare actual performance/experience with a product/service. Attribution models reflect the concepts of causality, stability, and controllability. The response where either the producer of the service/product gets the credit or blame for the performance or the consumer ascribes the deficiency to himself is a form of causality. The stability aspect of the attribution model sees the consumer as being less critical of rare defects in the product/service while controllability refers to the situation where the consumer believes that the provider of the product/service could have controlled the fault. The affective model is reflective of the feelings the consumer experiences after using the product/service. Equity model concerns the perceptions of the consumer regarding getting value for money/effort or involves a comparison of experiences with those of others (Hom, 2000).

Of the macro models, the expectation disconfirmation (Figure 2.1) model is widely used (Hom, 2000; Sibley, et al., 1992) and forms the basis of the SERVQUAL Model developed by Parasuraman et al. (1985) for assessing service quality. Despite its extensive use, the model is criticised based on the belief that customers might not evaluate service quality using the confirmation or disconfirmation of

their views as the model specifies bringing into question the efficacy and relevance of the model (Buttle, 1996). The SERVQUAL Model was applied by Daniel and Berinyu (2010) to determine perceptions of students of Umena University regarding the service quality of grocery stores. They found that, for all the dimensions of interest, students were not satisfied with the service quality at grocery stores. Daniel and Berinyu (2010) however criticised the SERVQUAL Model, because factors did not load as expected to the respective dimensions, and questioned the wording of the instrument which they believed might have accounted for the low reliability of some of the dimensions. Daniel and Berinyu (2010) proffer the SERVPERF model with its emphasis on assessing service performance rather than customer satisfaction as a credible alternative to the SERVQUAL model. Using SERVPERF, Taylor and Cronin (1994) found that the structure of the model lacked consistency and generalizability. The findings of Taylor and Cronin (1994) brings into question the efficacy and relevance of the model, particularly as it relates to the assessing of customer satisfaction to inform improvement efforts.

There appear to be arguments for and against the SERVQUAL and SERVPERF approaches to assessing customer satisfaction. The researcher contends that since the study does not intend to use the SERVQUAL or SERVPERF instruments but will use the validated Student Satisfaction Survey (SSS) developed by the researcher of this study, the study is more likely to unearth information that has generalisability to the population for whom it was designed. Use would be made of the Expectation Disconfirmation Theory which, despite its criticisms, has been widely used to model customer satisfaction. Arguably, there appears to be no compelling evidence which suggests that it should not be used to operationalise the current study.

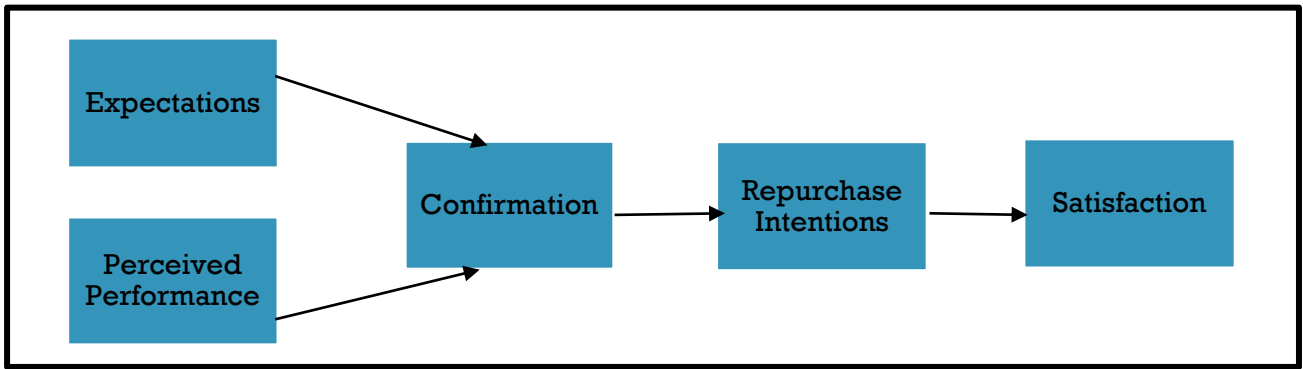


Figure 2.1: Expectation Disconfirmation Theory

Source: (Venkatesh & Goyal, 2010, p. 284)

Determining customer satisfaction appears critical to the contemporary organisation. Contextually, two questions arise here: (i) What are students’ expectations of the services provided by the Caribbean university? (ii) How satisfied are students with the services provided by the Caribbean university?

### 2.2.2 Customer Satisfaction and Improved Business Performance Models

Many models exist which specify the relationship between or among customer satisfaction, different service or product attributes and improved business performance. Some such models are the New Productivity Model, Perceived Quality in Higher Education Model, the Improvement Cycle Model, and the Service-Profit Chain Model discussed in turn.

The New Productivity Model (Figure 2.2) developed by Sibley et al. (1992) links customer satisfaction to productivity. In this model productivity is a function of customer satisfaction divided by company resources \* 100 (Equation 2.1). Company inputs are the resources of capital, labour, materials, and marketing efforts. A measure of company inputs can be derived by summing the dollar estimates for each of the resources and dividing by sales in dollars. The model points to customer satisfaction and investment in resources per unit of output as essential factors in the productivity of a firm. Sibley et al. (1992) suggest two models explain satisfaction – a high involvement and a low involvement model. In the high involvement model customer satisfaction is set as a function of perceived use performance (Equation 2.2) and in the low involvement model disconfirmation acts as an intervening factor in understanding customer satisfaction (Equation 2.3).

$$\text{PRD} = f [(\text{SAT}) / (\text{CRS})] * 100 \text{ (Equation 2.1)}$$

$$\text{High Involvement Case: SAT} = f [(\text{PRP}) / (\text{INP})] \text{ (Equation 2.2)}$$

$$\text{Low Involvement Case: SAT} = f [(\text{DSC}) / (\text{INP})] = f [(\text{PRP} - \text{EXP}) / (\text{INP})] \text{ (Equation 2.3)}$$

*Figure 2.2: New Productivity Model (Sibley, et al., 1992)*

In equation 2.1 above PRD = Productivity Index; SAT = Satisfaction across Firm's and Customers; and CRS = Company Resources per Unit of Output. In Equation 1 and 2, PRP = Perceived Performance of the Product; INP = Inputs of Customer (time, money and risk); while in Equation 2, DSC = Disconfirmation; and EXP = Expectations of the Product which are influenced by pricing, promotion and distribution (Sibley, et al., 1992).

The suggested approach to measuring customer satisfaction uses a set of attributes considered critical to the customer in assessing his/her degree of satisfaction with a product/service. Parasuraman et al. (1985) identified ten universal service dimensions (Access, Communication, Competence, Courtesy, Credibility, Reliability, Responsiveness, Security, Tangibles, Understanding) used by customers in forming judgements. Reviewing the service quality and education literature Owlia & Aspinwal (1996) identified six measurable dimensions (Tangibles, Competence, Attitude, Content, Delivery, and Reliability) that could be used to determine the perceptions of higher education customers regarding the quality of service delivery. Donald and Denison (2001) argue that student perception of the quality criteria is an important factor to be considered when assessing the quality of education received by them. In her seminal article "Breaking Free from Product Marketing" Shostack (1977) posited that consumer satisfaction with a service is a function of the setting in which the service occurs and the personnel providing the service while their judgement of a product is the result of use. Similarly, Lovelock (1983) advanced that customer satisfaction is influenced by their interactions with service personnel, the nature of the service facilities and the characteristics of other customers using the same service. Unlike Douglas et al. (2006) and Gruber et al. (2010) found that the university buildings and quality of lecture theatres were sources of dissatisfaction to students. Gruber et al. (2010) also found a



significant relationship between student satisfaction and the relevance of course content to students' careers. Lewis and Clacher (2001) using the critical incident technique, obtained the perceptions of employees regarding the factors responsible for the diminished service quality at Theme parks. Lewis and Calcher (2001) found that the inability of service industries to communicate accurately and not communicating with customers could result in dissatisfied customers. While the findings of Lewis and Clacher (2001) do not relate to the students, they do indicate the possibility that communication might be a dimension which impacts the satisfaction of the customers of education industries which could also be considered service industries.

Sibley et al. (1992) proposed the derivation of a summated weighted score (importance \* satisfaction) which is then averaged to obtain an overall rating for the respondent to measure customer satisfaction. The respondent will indicate his/her perceived degree of importance of each attribute using a scale which ranges from 0 to 1, but the total should add up to 1 for each respondent. A bipolar scale is posited by Sibley et al. (1992) to work well with this model. The respondents' degree of satisfaction can be determined using the bipolar descriptive anchors extremely dissatisfied and extremely satisfied with the middle point being .5 representing neither satisfied nor dissatisfied (neutral). Table 2.1 illustrates the gradations of such a scale.

*Table 2.1: Illustration of Bi-polar Scale posited to Operationalise New Productivity Model*

EXTREMELY		DISSATISFIED					EXTREMELY		SATISFIED	
0	.1	.2	.3	.4	.5	.6	.7	.8	.9	1

**Adapted from:** Sibley et al. (1992)

While the New Productivity Model provides a simple way of measuring the relationship between customer satisfaction, company resources and productivity, the model did not undergo empirical testing by Sibley et al. (1992). Instead, the authors made use of hypothetical data to illustrate the usefulness of the model. The model appears only suitable for quarterly data. There is no guarantee that real data collated differently will provide valid results using the model. The model does, however,



unlike financial tests which evaluate past performance. It is the non-financial measures which allow a company to take care of defects in a product before they become unwanted. In their explanation of the "Improvement Cycle" (Figure 2.4) the authors argue that improved business performance is the result of customer loyalty which correlates to increased customer satisfaction regarding product and service quality. Additionally, product and service quality relates to employee satisfaction and internal structure also associated with business performance. Kristensen et al. (2002) conducted a pilot study comprised of 3000 respondents from the company Post Denmark. A model comprising responses to all kinds of postal services (parcel, delivery, mail, counter services) was tested using a combination of principal component analysis and regression analysis. Kristensen et al. (2002) found that the model fitted well ( $R^2 = 0.78$ ) and could explain customer satisfaction for Post Denmark. They opined that the model appeared suitable for other industries. Kristensen et al. (2002) also identified ways in which the European Customer Satisfaction Index (**ECSI**) Model could be modified for tracking, benchmarking or the identification of operational areas needing improvement.

The pilot study by Kristensen et al. (2002) revealed that the **ECSI** Model was able to ascertain customer satisfaction for Post Denmark. However, there is no evidence to support the claim by them that the **ECSI** Model might be suitable for determining customer satisfaction of companies in different industries like the one, the education industry, of the current study. When one considers that the context, setting, and characteristics of the population of the present study is different from those used by Kristensen et al. (2002) this brings into question the applicability of the model for ascertaining customer satisfaction at higher education. The model does, however, pinpoint product and service quality and employee satisfaction as possible factors of customer (student) satisfaction. Given the phenomenon, cited in Section 1 of Chapter 1, which gave rise to the study in the first place and the time-bound nature of the research, customer satisfaction is considered an appropriate variable to include in a model which seeks to determine the drivers of student satisfaction with the services offered by a Caribbean university.

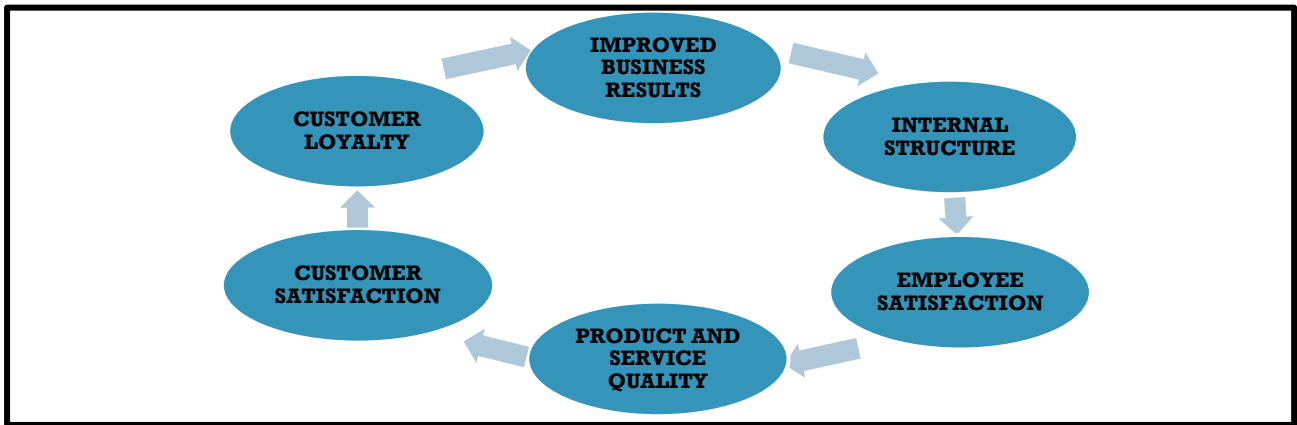


Figure 2.4: The Improvement Cycle

Adapted from Kristensen et al. (2002)

In Figure 2.5 below Heskett, et al. (1994) presents the Service Profit Chain (SPC) which like Kristensen, et al. (2002) specifies that a relationship exists among employee satisfaction and customer satisfaction and profitability. The SPC links profitability and revenue growth to customer loyalty which stems from customer satisfaction about the value (quality) of the services received. The model also indicates that the quality of the services received by the external customer is the result of the productivity of internal customers (employees) who are satisfied with the quality of the services provided to them (Heskett, et al., 1994). The Service Profit Chain was empirically tested by (Kamakura, et al., 2002). Section 2.3 below outlines the details.

Evidently, employee satisfaction is related to the quality of services provided to customers, which in turn influences the satisfaction level of customers (Heskett, et al., 1994; Kristensen, et al., 2002). The extrapolation is that, in addition to service and product quality, employee satisfaction is also a variable worthy of inclusion in a model concerned with customer satisfaction at the Caribbean university.

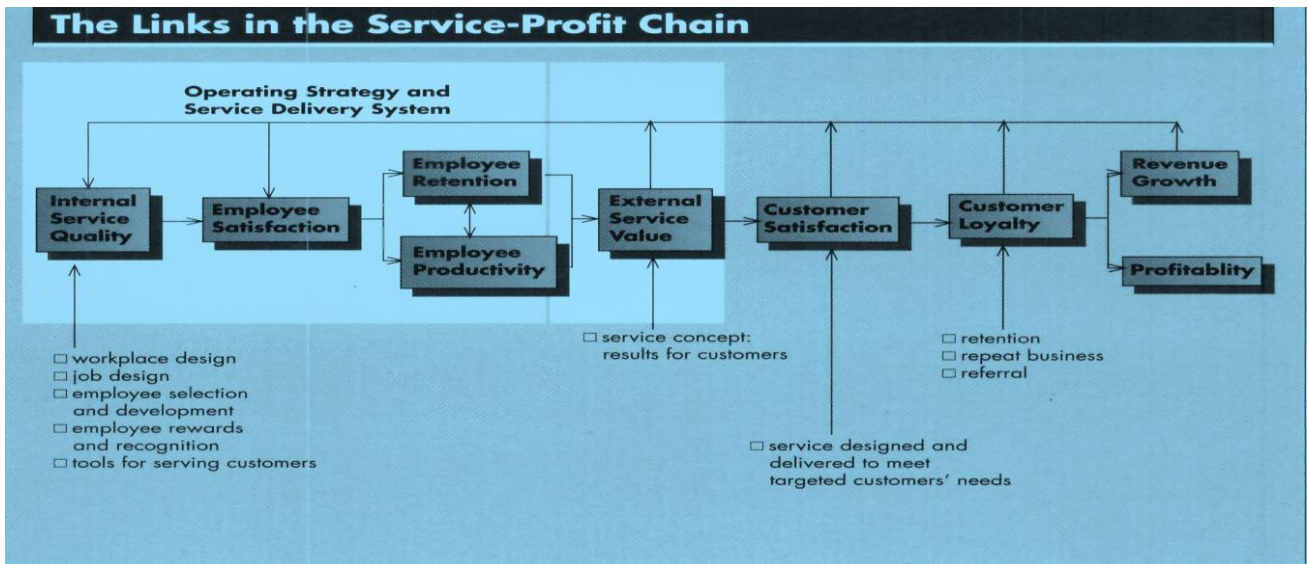


Figure 2.5: Service Profit Chain

Source: Heskett et al. (2008)

The models (New Productivity, Perceived Quality in Higher Education, Improvement Cycle, and the Service-Profit Chain) examined highlighted customer satisfaction as a variable for investigation given the aim and objectives of the study. The theorised impact of customer satisfaction on the revenue earning capacity of an organisation (Heskett, et al., 2008; Kristensen, et al., 2002; Livingston, 1993) suggests that an investigation into the satisfaction level of the customers (students) of the Caribbean university might be pertinent. Kristen et al. (2002) indicate that assessing customer satisfaction is pivotal to the performance of a business since it enables the identification of defects in the provision of a product or service so that they can be corrected. The Expectation Disconfirmation Model has been widely used to this effect (Hom, 2000) and presents a means through which the satisfaction level of students with the services offered at higher education could be ascertained.

### 2.3 Customer Satisfaction and Business Performance - The Evidence

Various studies (Anderson, et al., 1994; Athiyaman, 1997; Hallowell, 1996; Kamakura, et al., 2002) have established that a relationship exists between customer satisfaction (a non-financial measure), customer loyalty and profitability.

Hallowell (1996) investigated the relationship of profitability to intermediate Customer-related outcomes that managers can influence directly. The sample population comprised 12,000 randomly selected banking customers in 59 divisions. The data for the analysis was collected using a four-page questionnaire developed by the bank and a marketing firm. The survey was tailored to collect demographic data as well as to determine customer level of satisfaction with specific services and price. The internal validity of the research findings was ensured using multiple measures of customer satisfaction, loyalty, and profitability wherever possible. The data, which was analysed using Ordinary Least Squares, indicated a possible relationship between customer satisfaction, customer loyalty and in turn profitability as theorised in Heskett et al. (1994) Customer Service- Profit Chain. Path analysis conducted on the measures were however inconclusive in deciding whether the relationship between customer satisfaction, customer loyalty and profitability was stronger than the direct link between customer satisfaction and profitability. Notwithstanding, the findings point to the possible role the development of satisfaction and perception indices could play in enabling an assessment of customer satisfaction and the identification of gaps in the services provided by the Caribbean university.

The Customer Service Profit Chain was also tested by Kamakura et al. (2002) using 5,055 customers from more than 500 branches of a leading bank in Brazil. The respondents were interviewed concerning equipment and service attributes. Four types of measures were employed in the study: operational inputs to attribute level perceptions; survey measures on attribute performance perceptions and overall satisfaction; behavioural measures of retention; and financial measures of profitability. The final sample was 3,489 owing to missing data. Using AMOS Module in SPSS, the authors found that all aspects of the **SPC** were supported. The standardised estimates were all statistically significant at the .05 level. They concluded that there was a relationship between customer satisfaction and profitability. In examining individual firms, the authors found that higher service quality was not a conditional guarantee of profitability. This finding implies that improvements in the quality of services

delivered to customers (students) might not necessarily impact the profitability of the Caribbean university despite the evidential association found between customer satisfaction and profitability.

Anderson et al. (1994) obtained the annual indices from the Sweden Customer Satisfaction Barometer (**SCSB**) on firm-level expectation, quality and customer satisfaction of 77 firms in Sweden and performed three-stage least squares estimates to determine the relationship between quality, satisfaction, and economic returns. They found that a relationship existed between quality, customer satisfaction and economic returns measured by return on assets (**ROI**). Firms which have high customer satisfaction enjoyed superior returns but that improvements are more of a long run nature than a short run. They posit as the market share of firms increase customer satisfaction might drop owing to the firm having to serve an ever-growing market. The significance of this finding is that an organisation could expect to realise higher returns, in the long run rather than the short run, when customers experience with the product/service exceeds their expectation of it. However, as the organisation develops new customers, the possibility exists that it could have its resources stretched to such a degree that customer satisfaction drops. Implied in the findings is that there might be limits to the ability of an organisation to continuously expand. An institution like the Caribbean university might do well to heed this finding of Anderson et al. (1994) and try to guard against growing its customer base (student population) to such an extent that it finds itself unable to maintain the satisfaction level of its customers (students) and ultimately undermine the stability of the institution.

Athiyaman (1997) opined that to determine the satisfaction of students with services offered at the university level that it is necessary to test prior enrolment expectations and post enrolment experiences using the eight service attributes mentioned earlier. The Perceived Quality of Higher Education Model (Figure 2.3) was empirically tested by Athiyaman (1997) using a medium-sized university in Australia. Data was obtained on two occasions from respondents - before enrolment and after enrolment. The instrument used was mail surveys measuring the attributes stated. Thirty-seven percent of the first-time respondents (1,342) returned the questionnaire. Tests were conducted to ensure that there was no

significant difference between the group that responded to the survey and those that did not. The study measured students' beliefs about the eight services and service attributes of the university; disconfirmation perceptions using the same eight items; satisfaction with enrolling towards the university; and behavioural intention. To obtain a measure of the belief of respondents were asked to score on a three-point scale each of the eight service/service attributes. 1 = Less than I would expect at another university; 2 = equal to that which I would expect at another university, and 3 = Greater than I would expect at another university.

A five-point scale was used to measure respondents' disconfirmation beliefs concerning each service/service attribute where 1= Very much poorer than expected to 5 = Very much better than expected. Respondents' satisfaction with enrolling at the university was measured using a six-item, five-point scale discussed in Oliver (1980b) with reliability 0.82. The revised attitude towards the university - perceived service quality at post enrolment was measured using an eight-item semantic differential scale. The bipolar scale anchors were: happy-angry; good-bad; uplifted-down; pleasant-unpleasant, contented-frustrated; fulfilled-disappointed, pleased-displeased; impressed-unimpressed. The behavioural intention was obtained using three items: I Like talking about -----to my friends; I like helping potential students by providing them with information about -----and its courses; and people ask me for information about courses offered at----- using three anchors strongly disagree to strongly agree. All measured were utilised as summed scales.

Athiyaman (1997) found that perceived quality was related to consumer (student) satisfaction but conceded the possibility that method variance might have been the cause of the substantial satisfaction effect on perceived service quality. They also found that perceived service quality influences students' post enrolment communication behaviour.

The author highlighted that a limitation of the study was the high correlation between post enrolment consumer satisfaction and perceived quality measures possibly linked to the obtaining of both attribute



measures at the same time. Athiyaman (1997) suggested a possible avenue for research is to ascertain the relationship between demographics and course variables to each of the eight attributes used to measure expectation and disconfirmation to understand differences in perceptions. Another suggestion was that future models incorporate all the variables in Figure 2.3 and examine consumer satisfaction with services for programmes of less than two years' duration. Doing so might help to eliminate the influences of extraneous variables on perceived post consumption quality.

The empirical evidence in the literature supports the theory that customer satisfaction is affected by the personnel providing the service, directly related to profitability mediated by customer loyalty. While the evidence was based mostly on data obtained from the marketing industry, and one might be inclined to spotlight that the education sector provides a different type of service, the evidence does not suggest or indicate that a model of customer satisfaction is unsuitable for higher education. Heskett et al. (1994) Service Profit Chain with its focus on the variables affecting internal service quality, revenue, growth, and profitability suggest that it might be pertinent to investigate employee satisfaction and customer satisfaction considering the phenomenon which gave birth to the study.

The established relationship between customer satisfaction and the revenue earning capability of an organisation and the demand of students for improvements in the quality of services provided to them by the Caribbean university suggested that it was prudent to focus the survey on customer (student) satisfaction instead of employee satisfaction. Heskett et al. (1994) Service Profit Chain with its many interconnected variables of customer satisfaction and the Expectation Disconfirmation theory of customer satisfaction presented two possible ways of modelling a study aimed at determining drivers of customer (student) satisfaction. The researcher considered it wise to use the Expectation Disconfirmation Theory as the Model for the study owing to the time-bound nature of the study, the phenomenon which gave rise to the study, and the cross-sectional nature of the research itself. Added to this was that the Expectation Disconfirmation Model was used successfully by Athiyaman (1997 to

measure student satisfaction at higher education. Investigating the other elements of the Service-Profit Chain would require more time than was available for the research.

Whether the concept of customer satisfaction can be efficiently leveraged on students is a matter on which only the literature or empirical study might shed light. Consequently, the current research which focuses on determining drivers of student satisfaction at the Caribbean university might provide support for or disprove the theory that the marketing concept of customer satisfaction and tools used to measure it can be employed at higher education to measure student satisfaction with the services provided to them.

#### **2.4 Student as Customer Concept**

There is a significant, multidimensional and ongoing debate about students being customers. Sax (2004) believe that the view of students as customers has roots in the activities of the earliest universities which attracted students by offering them special discounts and privileges. Sax (2004) argues that even though the word customer brings with it the notion of superficiality and speaks of short-term relationships involving the exchange of cash. There is no reason today why the relationship between universities and students cannot be a long lasting one which does not end at the completion of a programme. The technologies of the day make it possible for the bond developed to exist even after graduation. The claims of Sax (2004) while not substantiated by theory or informed by a referenced review of the literature does help to highlight a link to the views of Mark (2013), Schwartzman (1995) and Shostack (1977) that students are the customers of higher education. Further, Kanji et al. (1999) recognised students as the internal and external customers of higher education institutions. Conversely, Parsell (2000) and Svensson and Wood (2007) disagrees with the concept that students are customers. Parsell (2000) because education is not a commodity which can be sold at the lowest cost and Svensson and Wood (2007) that the term is an inappropriate descriptor of the relationship between students and the university. Students are not customers but citizens of the community of the university. The theory has caused students to believe that they have purchased their

degrees at the time of payment. Parsel (2000) believes the concept implies that students determine what course is relevant and promotes the idea that a degree can be purchased rather than conferred after years of hard work. In support of his argument, the author used the example of medical students not knowing what is relevant to different aspects of their career and only after graduation are they able to make the judgement of relevancy. A commodity purchased on the other hand carries no further expectations after purchase other than use or design.

Mark (2013a) opined that in the present day the definition of customer is more appropriately viewed in the context of the actions students take in acquiring an education. The act of paying, actively participating in their learning, and specifying their needs all make students customers in the contemporary sense. While not disagreeing with the concept of student as customers, but owing to the implication for the quality of education provided, Eagle and Brennan (2007) suggest that users of the idea need to define the type of customer envisaged. Student as client or student as professional and not in the superficial approach of the buyer who pays for the services received. Since the government also funds higher education from taxation, higher education institutions must seek to serve the interest of other customers. Students need to be educated as to their role in meeting the requirements of different stakeholders and not just themselves. Svensson and Wood (2007) suggest in addition to the redefining of the role of students, the role of government, university and academics should also be redefined to help to remove the misconceptions. Schwartzman (1995) and Ostrom et al. (2011) believe that a customer descriptor has the advantage of ensuring that students are rightfully considered fundamental to the development of education systems and procedures but Schwartzman (1995) opined that the classification commercialises education and hence erodes its purposes. The argument of Schwartzman (1995) is inconsistent with the current trend where more students are required to pay in one form or another for their education which, according to OECD (2008), cause them to have high expectations and demand value for money. Ostrom et al. (2011) note that a customer focus ensures that the experiences of students are used to drive education improvement initiatives. Raeside & Walker (2001)

indicate that employing a student as customer view, obtaining their perceptions and assessing their satisfaction is done by many universities. In a research conducted at Curtin University Academic Registrar's Office among administrative staff to ascertain their perceptions of academics and students as customers, Pitman (2000) using a phenomenological approach found that administrative staff perceived students as internal customers.

Evidently, viewing students as customers could prove advantageous to higher education institutions in ensuring that dimensions of importance to the students are the focus of improvement efforts through which value for money could be assured. The view of students as customers is not a new one and can be linked to the activities of first universities which used incentives to attract students. Like earlier universities, the modern university also uses various media to influence students to make them the first choice for higher education. Using the technology of the day a higher education institution can reach and impact countless prospective students all over the world just like the traditional service marketing entities which use technology to attract customers to their offerings. The similarities of the actions of these two organisations suggest that the customer concept could be leveraged on students at higher education.

While there is some disagreement with the concept of students as customers on the premise that education is not a commodity which can be bought, there is no denying that students are users of the services provided by higher education institutions. Whether they pay or not, are defined as customers or not, students have expectations regarding the utility of a product/services offered at higher education institutions. Arguably only after graduation will a student be able to judge the utility of the education (degree, diploma, and certificate) but this gives rise to post experience of the product/service of the university in making them job ready. Identifying the students as customers make it possible for a researcher to employ the Expectation Disconfirmation Theory as a model to measure their level of satisfaction or dissatisfaction with the services provided to them during their education. Dissatisfaction with any aspect of the services provided could result in negative word of mouth behaviour,

unwillingness to pay the asking fee, failure to rebuy – return to the university or make referrals which would undoubtedly affect the viability of the institution. Thus, the delineation of the service element of a university is critical.

Mark (2013b) hypothesizes educators usually resist the student as customer concept owing to the emphasis on the archaic policy “the customer is always right”. They fear that if the term “customer” is applied to students then they would have to pander to their demands. The author argues that the meaning of customer in contemporary business organisations has changed from the position where “the customer is always right” to one which involves a partnership between the organisation and the customer. It is this transformation that makes it possible for the student to be classified as a customer who works with the institution to provide feedback on the services offered so that the institution can provide the kind and quality of education required by the student. Viewing the student as a customer does not imply that the institution has to ‘pander’ to students rather it is an opportunity for the institution to involve students in a partnership where the students’ feedback provides the institution with information that is used to improve the quality of education provided to them. As higher education institutions seek to provide the kind and quality of education required by its students they might very well find it beneficial to provide opportunities or means through which feedback could be obtained from its customers (students) on quality dimensions of importance to them so that improvement efforts could be directed to dimensions falling short of expectations.

There appears to be value in leveraging the customer concept on students since doing so could help direct improvement efforts on dimensions of importance to them at higher education. Given the influential role of “word of mouth” on the prior expectations of customers (Huang, et al., 2012) and subsequent judgements (Bone, 1995), the student as customer classification might very well be suitable. Bone (1995) found that word of mouth influenced short and long-term judgements especially when a perceived expert communicated disconfirmation. Blodgett et al. (1993) found negative word of mouth to be dependent on whether the customer perceived that complaints were dealt with justly

while Gremler et al. (2001) found that developing interpersonal relationships between service providers and customers was significantly related to positive word of mouth communication.

Institutions of higher education might want to consider the advice of Eagle and Brennan (2007) to identify students as clients or professional thereby removing the superficial connotation of the paying customer. The researcher argues that defining students as customers could help higher education institutions focus on dimensions of importance to these essential stakeholders whose patronage and actions have the potential to positively or negatively affect their business performance.

#### **2.4.1 Student Satisfaction**

The definition of customer satisfaction cited earlier in Section 2.2 can be aptly applied to student satisfaction. Student satisfaction is vital because the measurement of the degree of students' satisfaction with the services provided by higher education can help to highlight gaps in the service provided by the institution thereby guiding improvements efforts in areas of importance to the students.

In the long run, the institution might be able to reap the associated benefits of high student satisfaction.

To ascertain the factors which influence student satisfaction in higher education institutions, Machado et al. (2011) conducted a nationwide study with 13,000 higher education students in Portugal. The sample was selected using the stratified random sampling technique. The data, collected via questionnaires, when analysed revealed that student satisfaction with academics was significantly related, at the 0.05 level, to the dimensions of academic support, aspects of personal growth, institutional processes and services. Machado et al. (2011, p. 248) suggested that Higher Education Institutions wishing to raise the level of student satisfaction should consider the factors related to academics such as quality of teaching, variety of courses offered, interaction with faculty out of class and knowledge assessment.

Donald and Denison (2001) conducted a study to understand students university experiences and to improve university teaching and learning. They surveyed a sample of 400 undergraduate students at a research university. Statistical tests on the data collected revealed that student perception of the

quality criteria is an essential factor that should not be overlooked when assessing the quality of education received by them since they ensure that the students' needs are addressed. Unlike the usual input-output measures used by administrators and faculty which do not necessarily consider the effect of the environment and attitudinal factors on student performance.

Douglas et al. (2006) collected data using a questionnaire to ascertain the opinion of students at a United Kingdom University. Statistical analysis revealed many factors related to teaching and learning. Textbook, Value for Money, Promptness of Feedback on Performance, Usefulness on Feedback on Performance, Availability of Staff, Way Timetable is Organised, Course Workload, Textbooks' Availability within the Learning Resources Centre, Textbook Usefulness in Enhancing Understanding of Modules, Responsiveness of Teaching Staff to requests were more important to students than physical facilities such as lecture room, level of cleanliness, lecture room lighting, lecture room layout, lecture room furnishings, toilet facilities overall, recreational facilities overall, and the availability of parking among others. Douglas et al. (2006) also found that the attitude of staff such as the helpfulness of technical staff and the helpfulness of the administrative staff were regarded unimportant to students even though they registered dissatisfaction for the variable. Among the dimensions of high importance and high satisfaction identified by Douglas, et al. (2006) were the appropriateness of the method of assessment, the subject expertise of staff, and teaching ability of staff.

The measurement of student's satisfaction with the services provided by higher education could help to highlight gaps in the service provided by the institution thereby guiding improvements efforts in areas of importance to the students. Consequently, a question which arises is: How satisfied are students with the services provided by the Caribbean university?

## **2.5 Conclusion**

The purpose of higher education has consequences for an individual, economic and national development. The challenges brought about by globalisation and the vast improvements in

communication and information technology calls for a re-defining of the purposes of higher education. An appropriate philosophy needs to be specified so that the university while catering for the challenges in its environment does not lose its reason for being but remain a place where academic freedom and critical thinking exist while fulfilling its redefined roles. Central to the purpose of higher education is the concept of added value and its measurement. The literature suggests that value is indicative of improved student learning or inferred from the perceived value or quality of the education received. It is argued that since the education received by students is contingent on a series of services provided by administrative, ancillary and academic staff in a particular setting, the determination of the perception and the satisfaction of students regarding the quality of services provided to them by higher education institutions, might help uncover areas for improvement. The theorised link between customer satisfaction and profitability (Heskett, et al., 1994; Kristensen, et al., 2002; Livingston, 1993) and empirical evidence (Hallowell, 1996; Kamakura, et al., 2002) suggest that increasing customer (student) satisfaction might enable institutions to significantly impact students' perceptions of the value of the education received.

There is general agreement (Civil Society, 2000; Human Rights Education Associates, 1948; UNICEF, 2011) that no eligible person should be denied access to the kind of education necessary to stimulate and foster creativity using technology and the sciences owing to inability to pay. This caveat gives rise to the issue of funding regarding who should pay and by what means. Whether the state should fund is a political or policy decision, which may be guided by evidence from research which indicates the implications of not doing so. Should higher education be financed by an amalgam of state and private or should the cost be borne solely by individuals may also be guided similarly.

The focus of the current study, however, is not to uncover who or how higher education should be funded. Instead, given the apparent reluctance by students to proposals to raise tuition and fees, their demands that the quality of services received be improved, and the association identified in the



literature between customer satisfaction and business performance, the study aims to determine drivers of students (customers) satisfaction with the services offered by the Caribbean university.

Whether the students are classified as customers or otherwise at higher education does not appear to matter. What matters is that their satisfaction with the services provided by higher education be measured so that variations in the services can be identified with the aim of focusing quality improvement efforts on attributes of importance to them. It is argued that a customer focussed strategy could provide the administrators of higher education institutions with the tool to assess and maximise their efforts to provide the kind and quality of service required by its most valued customers – the students - which eventually is theorised to impact its bottom line positively.

Table 2.2 provides a summary of the key themes found in the literature and the associated research questions deemed relevant to the determination of the aim and the achievement the objectives at Section 1.4 of the study.

*Table 2.2: The Research Approach*

Key Literature	Theme	Author	Questions for Study
<b>Linking student satisfaction and service quality perceptions: the case of university education</b>	Prior Expectation, a factor in assessing student satisfaction.	Athiyaman (1997)	<b>What are students' expectations of the services provided by the Caribbean University?</b>
<b>A re-examination of the determinants of consumer satisfaction</b>	Prior perceptions influence satisfaction.	Spreng, et al. (1996)	
<b>'A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions.'</b>		Oliver (1980)	
<b>A Conceptual Model of Service Quality and its Implications for Future Research</b>	Meeting and Exceeding Customer Expectations ensures good service quality	Parasuraman, et al. (1985)	

Key Literature	Theme	Author	Questions for Study
<b>Quality Assessment of University Students: Student Perceptions of Quality Criteria</b>	Student Perception of Quality Criteria affects satisfaction	Donald and Denison (2001)	<b>How satisfied are students with the services provided by the Caribbean university?</b>
<b>Breaking Free from Product Marketing</b>	The setting in which services are provided influences student satisfaction	Shostack (1977)	
<b>Classifying Services to Gain Strategic Marketing Insights</b>		Lovelock (1983)	
<b>An Overview of Customer Satisfaction Models.</b>	Satisfaction/dissatisfaction is a function of prior expectation and actual experience of a good or service.	Hom (2000)	
<b>'A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions.'</b>		Oliver (1980)	
<b>A re-examination of the determinants of consumer satisfaction</b>		Spreng, et al. (1996)	
<b>Measuring Student Satisfaction at a UK University</b>		Student Satisfaction is affected by the: - Appropriateness of the method of assessment -The subject expertise of staff - Teaching ability of staff -Attitude of staff -Helpfulness of technical staff -Helpfulness of Administrative Staff	Douglas, et al. (2006)
<b>Satisfaction with Higher Education: critical data for student development</b>	Student Satisfaction is affected by: -Academic Support -Aspects of personal growth -Institutional Processes -Services	Machado, et al. (2011)	<b>How satisfied are students with the providers of services at the Caribbean university?</b>

Key Literature	Theme	Author	Questions for Study
<b>Breaking Free From Product Marketing</b>	The Providers of Services affect satisfaction	Shostack (1977)	

Source: Own developed from the literature reviewed

As indicated in Chapter 1 of this study, the proposal to increase tuition and fees elicited mixed reactions from stakeholders. There were students who believed that there should be no increases and others who asserted that the proposed increases should correspond to the improvement in the services provided by the Caribbean university. Implicit in their assertion was that the students view the university as a service entity and were dissatisfied with the services provided to them. The literature indicated that one way to overcome resistance to price increases was to improve satisfaction. The review of literature also showed that satisfaction is a function of prior expectation and actual use of service as exemplified in the Expectation Disconfirmation Model. The variables Student Satisfaction, Student Expectation and Overall Student Satisfaction, were deemed pertinent to the determination of the satisfaction level of students and the identification of the service elements upon which to focus improvement efforts. Figure 2.6 presents the University Service Element Framework for the study.

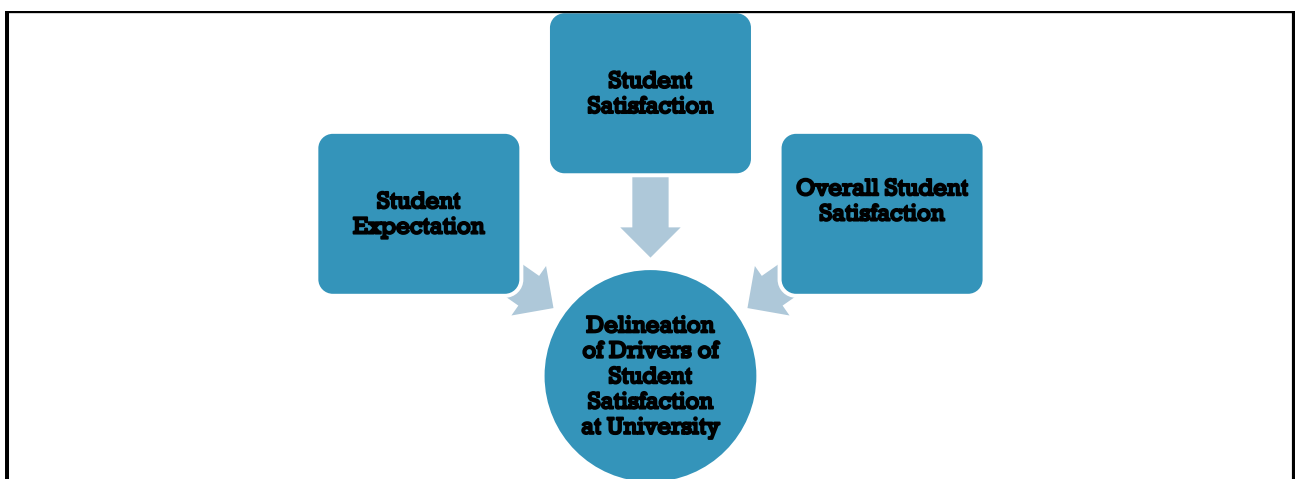


Figure 2.6: University Service Element Framework

Source: Own developed from the literature

The following chapter – Methodology and Methods will explain the processes used to address the research objectives at Section 1.3 and the research questions derived from the literature reviewed and identified in Table 2.4 and Section 1.4 of the study.

## Chapter 3 METHODOLOGY AND METHODS

### 3. Introduction

This chapter explains the methodology and methods used to provide the answers to the research questions developed from the literature reviewed and identified in Table 2.4 as well as Section 1.4 of this study in pursuit of the achievement of the aim and objectives defined at Section 1.3 of the study.

Figure 3.1 indicates how the chapter is organised.

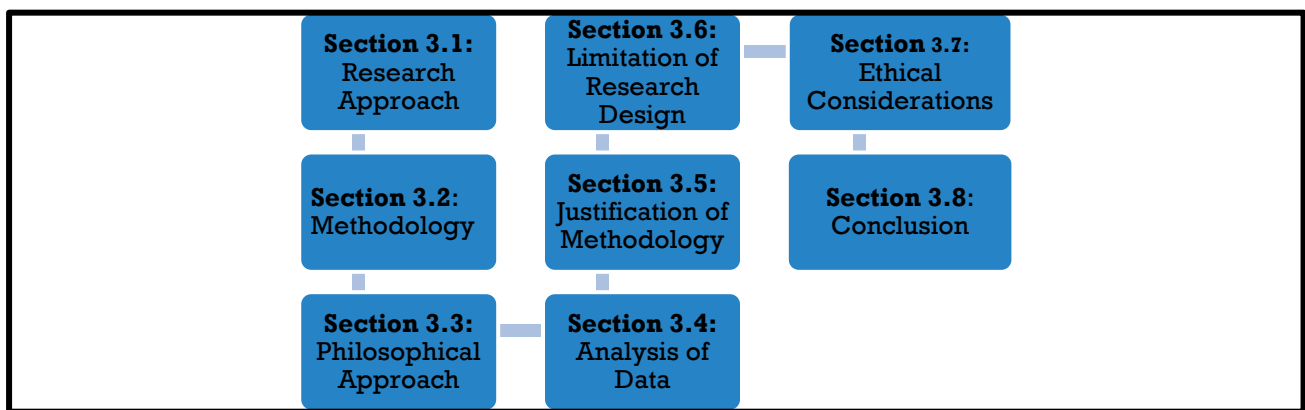


Figure 3.1: Organisation of Chapter

#### 3.1 Research Approach

Holden and Lynch (2004) have identified two major philosophical approaches to research: objective and subjective delimited by assumptions concerning ontology (view of reality), epistemology (knowledge), human nature, and axiology (the role values and process of research). They argue that the researcher's philosophical stance and the social phenomenon to be investigated dictates the methodological choice. Further, for research findings to be authentic, there should be consistency between the methodology and the problem the researcher has to investigate.

There are three ways of thinking about research philosophy: ontology, epistemology and axiology (Saunders, et al., 2007, p. 102). The approaches to research underpin the philosophies employed to derive answers to research questions in pursuit of research objectives. Holden and Lynch (2004) identify the interrelatedness of the philosophies as consequential to the research strategy and methods

employed to understand a phenomenon. Table 3.1 illustrates the connections between the researcher’s ontological, epistemological and axiological positions using the objective-subjective continuum.

Table 3.1: Linkages between Ontological, Epistemological and Axiological Assumptions

Philosophy/Assumption	Objectivist/Positivist Approach	Subjectivist/Phenomenological Approach
Ontology – views about reality	Reality is independent of the researcher	Social reality is shaped by perceptions
Epistemology-what is acceptable knowledge in a field of study?	Positivism – the researcher is independent of the phenomenon being studied	Subjectivism - the researcher is part of the phenomenon being studied
Axiology – the role of values	Research is value-free and unbiased	Research is value-laden and biased
Axiology – the process of research	Deductive – cause and effect; context-free	Inductive – conclusion based on observations; context bound

Source: Adapted from (Collis & Hussey, 2009; Saunders, et al., 2007)

### 3.1.1 Ontology

Ontology is the way in which the researcher views the world. The research *“Improving Student Satisfaction at a Caribbean University using a Customer Focussed Strategy”* was conducted in the workplace of the researcher. The aim of the research was to determine the drivers of student satisfaction with the services offered by a Caribbean university. My ontological assumption is that a researcher can conduct research without influencing it. This is consistent with the position of an Objectivist who views reality as being external to the individual (Bryman & Bell, 2011; Saunders, et al., 2007). The Objectivist ontology enabled me to take an outside-in perspective in investigating the phenomena of the apparent resistance by some students to the proposed price increase in tuition and fees which appeared linked to their level of satisfaction with the service quality dimensions at university.

When the researcher views reality as being socially constructed by individuals, the position is considered subjectivism (Saunders, et al., 2007) or constructivism (Bryman & Bell, 2011). Despite my ontological persuasion of an Objectivist, use was made of the subjectivist ontology with a focus

group comprising students of the Caribbean university, to refine and validate the university service dimensions (items) on the researcher developed Student Satisfaction Survey. Notably, the researcher's view of reality is the foundation of the other philosophical assumptions (Holden & Lynch, 2004). Sections 3.1.2 and 3.1.3 elucidate the epistemology and axiology related to the Objectivist ontology primarily embraced by the researcher to derive answers to the research questions in pursuit of the achievement of the aim and objectives of the study.

### **3.1.2 Epistemology**

The epistemology philosophy concerns itself with the nature of knowledge (Holden & Lynch, 2004), what is considered acceptable knowledge in a field of study (Bryman & Bell, 2011; Saunders et al., 2007) and how it can be acquired if at all (Holden & Lynch, 2004). A range of epistemologies (positivist, critical realist, interpretivist, post-positivist, pragmatist or post-modernist) exists which, depending on the ontology of the researcher, can be adopted in the pursuit of answers to research questions posed by a study.

By nature, my epistemology is that of a positivist. Often, when the researcher has to conduct a piece of research, she immediately thinks of how she would measure the data to be collected and the statistics she would use to analyse it. Given that the research questions of the study sought to determine the expectations of students with the services provided by a Caribbean university, how satisfied students were with the services provided and service providers of a Caribbean university, these endorsed the dominant positivist stance primarily employed in the study. Moreover, the positivist stance aligns itself with the deductive approach which enabled me to use theory to identify the variables (service quality dimensions, customer satisfaction) for the research and to develop the conceptual framework before the study. The subjectivist approach was initially used in the refinement and validation of the researcher developed data collection instrument (Student Satisfaction Survey) and subsequently employed to code, quantify and evaluate the qualitative responses provided in the open-ended section

of the questionnaire which allowed participants to give their lived experience of the services provided by a Caribbean university.

### **3.1.3 Axiology**

The axiology philosophy considers the role of a researcher's value play in the process of research (Saunders, et al., 2007). It also considers the interaction of the researcher with the participants in a study. The researcher considers the participants as objects or subjects depending on his/her epistemology. Where the researcher adopts a positivist epistemology, the researcher believes that his presence will in no way influence the researched object, and hence any research by him would be 'value-free' and 'unbiased' (Collis & Hussey, 2009). Where the researcher adopts a subjectivist epistemology, the researcher believes that it is necessary to interact with the subjects to gain an in-depth understanding of the phenomenon and hence the research would be value-laden and biased (Collis & Hussey, 2009).

The Objectivist ontology and positivist epistemology of the researcher was assured through planning and researching in such a way as to avoid: influencing the data collected; bias in the presentation and interpretation of data, thus ensuring that the results of the study are valid.

## **3.2 Methodology**

A methodology is an approach to the process of research encompassing a body of methods (Collis & Hussey, 2009, p. 73). Several methodologies exist to enable a researcher to investigate a phenomenon. Figure 3.2 illustrates a compendium of methodologies compiled from Creswell (2008), Collis and Hussey (2009), and Saunders, et al. (2007) which require either deductive or inductive approaches. The deductive approach is used when theory informs the research and the inductive method when the research informs theory (Bryman & Bell, 2011).

Researchers operating under a positivist epistemology usually conducts quantitative studies and adopts a deductive approach to research while the researcher working under the subjectivist epistemology



typically conduct qualitative studies and take an inductive approach to research. Collis and Hussey (2009) note that there are instances, though, where researchers of positivist studies collect a small amount of qualitative data which could be quantified.

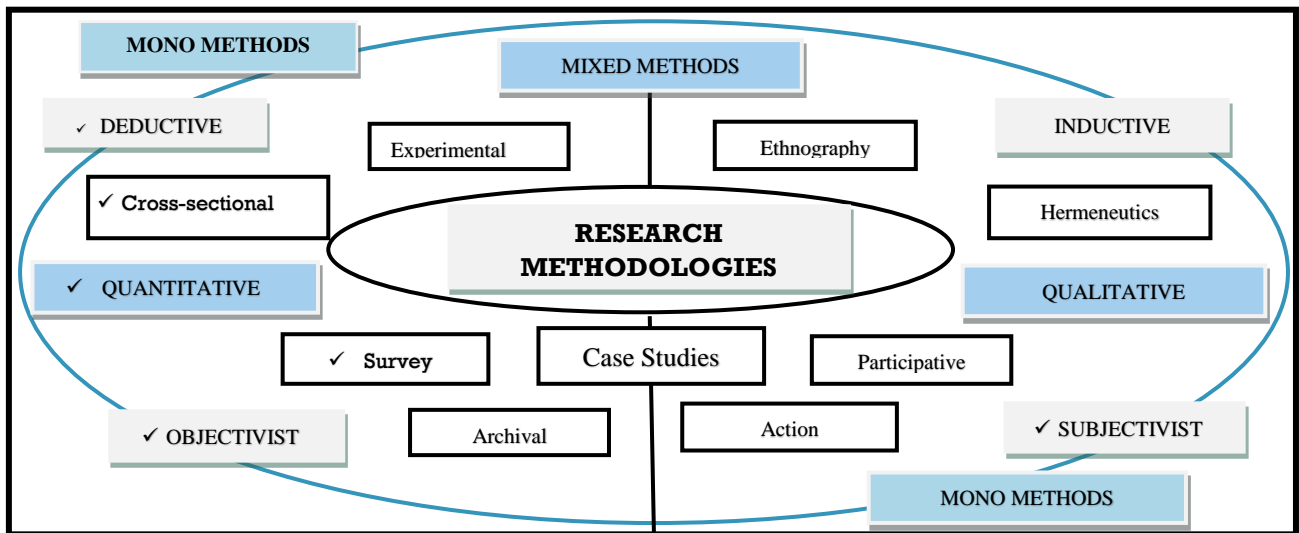


Figure 3.2: Compendium of Research Methodologies

Given that the research sought to obtain from respondents their level of satisfaction with the services provided to them by the Caribbean university, the Survey Methodology was considered appropriate for the answering of the research questions of the study. The survey methodology was also consistent with the objectivist ontology and positivist epistemology of the researcher. The following section presents the characteristics of the survey methodology and summarises in Table 3.5 the type of survey chosen and the features which make it suitable for the obtaining of data for the study.

### 3.2.1 The Survey

A survey methodology involves asking questions face to face, by telephone or via questionnaires of individuals, and departments or companies to find out personal, company or sector information (Adams, 2007; Creswell, 2008). The questions are usually couched in terms of who, what, where, how much and how many (Saunders, et al., 2007). A survey can be cross-sectional – done to investigate variables or a group of subjects in different contexts over the same period. They can also be longitudinal - conducted to investigate a small selection of variables or group of variables over an

extended period. The researcher takes repeated observations to identify the changes that have taken place during the period under study and enable him to explain the changes (Creswell, 2008).

The researcher employing a survey methodology collects primary or secondary data from a sample to analyse them statistically and make generalisations about the population (Collis & Hussey, 2009). The instrument used to collect the data is not mainly questionnaires, but structured observations and structured interviews are also used (Saunders, et al., 2007). The survey design allows the researcher to collect data on the entire population (Creswell, 2008). Where the population is large, time and cost constraints prevent the collection of data on the whole population; the researcher must ensure that the sample is representative of the population (Collis & Hussey, 2009).

Surveys can be descriptive (to provide an accurate representation of a phenomenon at one point in time or at various times) or analytical (to determine whether a causal relationship exists between the variables). When conducting an analytical survey, the researcher must develop a theoretical framework from existing literature to identify the variables (dependent and independent) to be tested (Collis and Hussey, 2009, p.p. 76-77). The advantages of the survey method are that it gives the researcher more control over the research process and when random sampling is used, it is possible to collect data that is representative of the entire population. According to Saunders, et al. (2007, p. 412) the time which must be spent pilot testing the instrument is a constraint of this method. However, a considered advantage of pilot testing is that it allowed for the refining, validating and testing of the reliability of the Student Satisfaction Survey developed by the researcher to collect the data for the study.

A disadvantage of the survey method is that the researcher is dependent on the respondents to obtain a good response rate. The use of questionnaires is believed by Saunders et al. (2007) to preclude the obtaining of a wide range of data owing to limits placed on the number of questions that the researcher concerned about not making the process tiresome can ask. The researcher was able to circumvent this limitation by including an open-ended section on the Student Satisfaction Survey which allowed respondents to add any other information not covered in the survey.

The cross-sectional survey design was judged appropriate for the obtaining of the data for answering the research questions and the determination of the aim and objectives of the study. Table 3.2 presents the characteristics which guided the selection of the cross-sectional survey design.

Table 3.2: Characteristics of Cross Sectional Surveys

CHARACTERISTIC	DESCRIPTION
Type of Data	Enables the collection of quantitative and qualitative primary data.
Locus of Control	Allows the researcher to control the research process.
Time Frame	Enables research to be conducted at a designated point in time.
Sample Size	Allows for the obtaining of data from many respondents.
Nature of Survey	Allows for the use of a questionnaire and the obtaining of responses to close-ended and open-ended questions.

Source: Own developed from the literature

### 3.3 Data collection

The population for the pilot study comprised 321 first-year undergraduate students enrolled during the Academic Year 2014/2015 at Campus II of the Caribbean university. A random sample of 30 students was selected in relation to the proportion in which they were represented in the population. The response rate was 100%. Table 3.3 indicates that 80% of the sample were females and 20% males. The students who comprised the focus group used to refine the Student Satisfaction Survey were excluded from the sample.

Table 3.3: Demographics of Pilot Sample

DEMOGRAPHICS (n=30)		FREQUENCY	PERCENTAGE
Sex of Respondent	Male	6	20%
	Female	24	80%
Age of Respondent	16-21	11	37%
	22-27	10	33%
	28-33	6	20%
	34-39	1	3%
	40-45	2	7%
	46 or older	0	0%

### **3.3.1 Radom Sampling versus Convenience Sampling – Lesson Learnt from Pilot Study**

Owing to the difficulties encountered in locating the students selected through random sampling for the Pilot Study, the researcher used Convenience Sampling to obtain the data for the main study. Use of the Random Sampling Method during the Pilot Study identified a sample of thirty students who were widely dispersed and difficult to locate (Daniel, 2012) primarily since the researcher was not familiar with all of them. To identify students, the researcher had to seek the assistance of other lecturers and students. Locating students consumed a lot of time. The lesson learnt was that another method would have to be used for the main study since the study would involve a much more extensive sample and encompass the two geographically dispersed campuses of the university. Thus, making the sample even more widely spread and difficult to locate should random sampling continued to be used to identify the students from whom to collect data for the main study. The need to have a good response rate and the length of time allotted for the completion of the main study were additional factors which militated against using random sampling. Other considerations were that Convenience Sampling allowed for the data to be obtained from students in their lecture rooms (Creswell, 2008; Daniel, 2012) and overcame the difficulties encountered during the Pilot Study of having to locate a widely dispersed sample. While convenience sampling is regarded as a method which does not produce a representative sample (Davern, 2008) to enable generalisation of findings to “individuals, settings/contexts, times, and operationalisations (Druckman & Kam, 2011, p. 43)”, it is contended by Lucas (2003) that methodological practices are not sufficient conditions for generalisations. What should be used instead is a composite of theory and methods. Importantly, Davern (2008) and Gobo (2004) argues that the criteria of representativeness are seldom met in survey research owing to non-response bias, and Davern (2008) maintains that biases produced from lack of representativeness hardly ever reduces the value of research findings. Davern (2008) suggested the restricting of inference to the population from which the sample was obtained to overcome the biases associated with lack of representativeness.

Gobo (2004) presents two views of representativeness (the variance of the phenomenon) which leads to the generalisation of a study's findings. The widely used Statistical Representativeness, the representativeness associated with random sampling and the making inferences to the population, and Social Representativeness, the representativeness related to the non-probability sampling of units possessing the characteristics of the phenomenon being studied where deduction to the population is made based on the pervasiveness of variances in the observed characteristics.

In summary, both probability and non-probability samples are argued as methodologies which result in lack of representativeness of some sort but have applicability for generalisations depending on the ontological position of the researcher. A consideration of the literature indicated that convenience sampling had been used in survey research to good effect by Ali et al. (2016) and DeShields et al. (2005) in understanding student satisfaction at higher education. It is also capable of replicating findings (Mullinix, et al., 2015). The indications are that data obtained from convenience sampling could provide answers to the research questions of the study and enable the achievement of its objectives and aim which seeks to determine drivers of students' satisfaction at the Caribbean university. The following section provides details of the sample and how it was collected.

### **3.3.2 Sample**

The main study was conducted during the Academic Year 2015/2016. A list of the number of students enrolled by year, gender and campuses for this period was obtained from the Registry of the Caribbean university. The population of the Caribbean university comprised 33% males and 67% females (Table 3.4). The guiding principle to achieve a representative sample was that it should include students in all the faculties/divisions of the university. An added caveat was that the sample should consist of students enrolled on first and second year programmes at the two campuses of the university since one campus primarily offered two-year programmes. With the assistance of lecturers, the researcher was able to identify the classes with these characteristics. The sample comprised 24% males and 45% females. Table 3.4 presents the population, sample, response rate by gender and year of study at the two campuses. The data was collected during November 2015 before final examinations and at the

beginning of regular lectures for all except two classes where the survey was done at the end of the lecture session. The initial response rate was 5% males and 11% females.

Table 3.4: Population, Sample, Response Rate by Campus, Gender and Year of Study

CAMPUS	POPULATION		SAMPLE		RESPONSE	
	Males	Females	Males	Females	Males	Females
	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> and 4 <sup>th</sup> Years	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> and 4 <sup>th</sup> Years	1 <sup>st</sup> and 2 <sup>nd</sup> Years	1 <sup>st</sup> and 2 <sup>nd</sup> Years	1 <sup>st</sup> and 2 <sup>nd</sup> Years	1 <sup>st</sup> and 2 <sup>nd</sup> Years
CAMPUS I	31%	59%	22%	39%	4%	8%
CAMPUS II	3%	8%	2%	7%	1%	3%
PERCENT AGE	33%	67%	24%	45%	5%	11%
	100%		69%		16%	

Owing to incomplete responses on the measurable dimensions on the Student Satisfaction Survey, the researcher used listwise deletion to achieve complete data sets on which to conduct the statistical analyses necessary to answer the research questions and achieve the aim and objectives of the study. While the Listwise deletion procedure produced complete data sets for 512 or 77.58% of the respondents for the measurable dimensions, two respondents gave no indication of their sex and one respondent did not indicate his/her Faculty/Division. Table 3.5 provides the details of the final response rate by campus, gender and year of study.

Table 3.5: Final Response Rate by Campus, Gender and Year of Study

CAMPUS	FINAL RESPONSE		NO RESPONSE TO GENDER
	Males	Females	
	1 <sup>st</sup> and 2 <sup>nd</sup> Years	1 <sup>st</sup> and 2 <sup>nd</sup> Years	
CAMPUS I	3%	6%	0.05%
CAMPUS II	1%	2%	
PERCENTAGE	4%	9%	0.05%
FINAL RESPONSE RATE AND FREQUENCY	510 or 13%		2 or 0.05%

Table 3.6 presents the distribution of the respondents by faculties and campuses. The highest number of respondents were from the Faculties of Social Sciences, Natural Sciences and Education and Humanities respectively. That of the three, the highest number of respondents were from the Faculty

of Social Sciences is not surprising given that this faculty usually records the highest number of students enrolled on its programmes.

Table 3.6: Distribution of Respondents by Faculty and Campus

FACULTY	CAMPUS		n	PERCENTAGE
	I	II		
Agriculture and Forestry	16	10	26	5.08
Earth and Environmental Sciences	16	0	16	3.13
Education and Humanities	83	27	110	21.48
Health Sciences	18	0	18	3.52
Natural Sciences	83	33	116	22.67
Social Sciences	150	56	206	40.2
Technology	19	0	19	3.71
<b>Sub Total</b>	<b>385</b>	<b>126</b>	<b>511</b>	<b>99.81</b>
No Response			<b>1</b>	<b>0.19</b>
<b>n</b>			<b>512</b>	<b>100.0</b>

Krejcie and Morgan (1970) suggest that a sample of 354 is adequate for a population of 4500. The Convenience Sampling Method employed in the study identified a sample which exceeded the recommendation of Krejcie and Morgan (1970) by one hundred and fifty-eight. Noteworthy is that the ratio of males to females which approximated 50% in the final response was similar to the proportion in which they occurred in population and sample. The study did not consider the students enrolled on the open/distance education programmes nor the students enrolled on the research and graduate programmes.

### 3.4. Research Design

The research was designed using the survey methodology. Items from the literature reviewed, Tangibles, Competence, Attitude, Content, Delivery and Reliability (Douglas, et al., 2006; Owlia & Aspinwal, 1996; Parasuraman, et al., 1985), and the list of demands made by students during industrial action (Kaieteur News, 2015; Staff Writer, 2014) guided the development of an 86 item Student Satisfaction Survey (SSS) for the respective dimensions.

Principal Component Analysis explained at 3.3.3., conducted on the 86 item **SSS** during the pilot study, revealed a 24-item instrument with seven dimensions: Attitude, Tangibles, Setting, Course Deliverables, Ergonomics, Copying Facilities, and Utility. Table The survey was divided into three sections. The first section of the instrument required students to provide biographic data which was used to describe and segment the sample population. The second section required respondents to give their level of satisfaction or dissatisfaction with, and degree of importance of, the items measuring the seven dimensions cited earlier in this section, using a five-point Likert Scale. The level of satisfaction ranged from 5 = very satisfied to 1 = very dissatisfied, and degree of importance ranged from 5 = most important to 1 = not at all important. The third section, an open-ended one, gave students the opportunity to pinpoint anything they might want regarding the services or the service providers of the university.

### **3.4.1 Validity and Reliability**

To assure confidence in the results obtained from survey data a researcher usually ensures that the instrument used to collect the data is valid and reliable.

The use of focus groups has been lauded by Nassar-McMillan and Borders (2002) as being useful in developing items for surveys and by Berkeley University (2006) for refining them. The researcher developed instrument was validated by a focus group of eight students, two from each of the four divisions at Campus II who reviewed it for content validity (comprehension, readability and missing statements/items of importance to them) and face validity. The researcher amended the improperly worded or unclear items, included or removed items identified, and included an example of how to complete the questionnaire as suggested by the group. Feedback from a member of the focus group indicated that the instrument was too long. PCA, a data reduction technique, enabled the 86-item instrument to be reduced to the 24 item one mentioned earlier.

A known level of assessing the reliability of an instrument is the Cronbach Alpha. Alpha levels  $\geq .70$  are regarded as evidence of the ability of the instrument to measure what it intends to (Netemeyr, et



al., 2003; Nunnally, 1975). Where alpha levels are low Santos (1999) suggests removing items that are not highly correlated with each other or adding more items that measure the variable of interest improves alphas.

Table 3.7 indicates the Alpha Levels for **SSS** on the dimensions on the 86-item instrument were all within the acceptable range ( $\geq .70$ ) as determined by Nunnally (1975) for all the dimensions measuring satisfaction and importance except for the dimension Competence measured using the importance rating which was below the accepted level.

*Table 3.7: Cronbach Alpha Levels for Dimensions*

<b>DIMENSIONS</b>	<b>NUMBER OF ITEMS ON (SSS)</b>	<b>SAMPLE SIZE LISTWISE DELETION</b>	<b>ALPHA LEVELS BASED ON SATISFACTION RATINGS</b>	<b>SAMPLE SIZE LISTWISE DELETION</b>	<b>ALPHA LEVELS BASED ON IMPORTANCE RATINGS</b>
<b>Tangibles</b>	33	24	.898	22	.913
<b>Competence</b>	7	29	.873	28	.367
<b>Attitude</b>	14	28	.935	27	.883
<b>Content</b>	9	30	.813	30	.715
<b>Delivery</b>	13	29	.928	29	.727
<b>Reliability</b>	10	28	.879	30	.875

Factor Analysis, a test of factorial validity, was employed to determine the extent to which the items constituting the scales were measuring the dimensions of interest (Bryman & Cramer, 2003) and for dataset reduction (Kim & Mueller, 1978). A criterion for judging the suitability of items for Factor Analysis is that the items should be significantly related to each other (Bryman & Cramer, 2003) with item values mostly above .30 but not strongly correlated ( $\geq .90$ ) since this gives rise to multicollinearity and could cause problems (Field, n.d.). Bartlett's Test of Sphericity at the  $p < .05$  level enabled judgement of the suitability of the data for Factor Analysis. Cognizance was also taken of the Kaiser-Meyer-Olkin (**KMO**) measure, a judge of sampling adequacy. Owing to partially completed Student Satisfaction Surveys the listwise deletion default procedure in SPSS was employed to obtain complete data sets for analysis.

### 3.4.2 Data Reduction and Structure Detection Parameters

The Statistical Package for the Social Sciences (SPSS) Version 20 was the tool used to conduct the analyses to validate the items measuring the dimensions of interest on the SSS. Principal Component Factor Analysis (PCA) with Varimax Rotation, Listwise deletion, and option fixed to suppress factor loadings  $< .50$  were the settings used in the analysis. Using factor loadings  $> .50$  is considered significant (Burton & Mazerolle, 2011; Costello & Osborne, 2005). Kaiser's principle of Eigenvalues  $> 1$  was used to identify significant factors (Bryman & Cramer, 2003). Burton and Mazerolle (2011) suggested that items which loaded on to more than one factor could be removed to ensure an interpretable structure. Similarly, Costello and Osborne (2005) recommended the removal items which loaded singly to a factor. The 86 items comprising the SSS were subjected to PCA. An examination of the output for the descriptive statistics indicated that there were some missing data. The correlation matrix indicated that many of the items had correlations above .30 and hence was suitable for Factor Analysis. There were, however, two pairs of items with correlations  $> .90$  which were removed from the analysis (Field, n.d.).

The result in the initial Rotated Component Matrix revealed many cross loaded items with communalities  $> .90$ . The cross loaded items were removed and the analysis re-run. This process continued until there were no more cross loaded factors. Items which single loaded to a factor were then removed and the analysis rerun. The steps were repeated sequentially until a clean structure appeared. Even though the KMO statistic was below the .50 range considered significant Bartlett's Test of Sphericity at the  $p < .05$  suggested that the data was suitable for Factor Analysis. The final step of the analysis indicated a 7-factor solution comprising 24 items which accounted for 81.03% of the variation in the original data (Table 3.8). The Factors identified were given suitable names. Factors 1 and 4 were named Attitude and Tangibles respectively and were the only two factors with clear links to the original dimensions named after. Factors 2, 3, 5, 6 and 7 were designated Setting, Deliverables, Ergonomics, Copying Facilities, and Utility respectively. None of the items representing the

dimension Delivery of Courses was among any of the factors identified. Only one item (Delivering on Promises), from the dimension Reliability, clustered to a factor.

Table 3.8 indicates the factors extracted, communalities and Cronbach Alphas. All the alpha levels for the Factors identified except for Factor 7 (Utility) are within the acceptable range ( $\geq .70$ ). The alpha level .699 for Factor 7 is marginally below the acceptable range. This Factor comprises two items hence no removal could be made to improve it. The Communalities ( $h_2$ ) for the items comprising the Factors range from .675 to .986 with three of the communalities below .70 suggesting that the model extracted through PCA can explain well the variation in the items.

Table 3.8: Factors Extracted, Communalities, Cronbach Alpha and Percent of Variability Explained

ITEM	Component							$h_2$
	1 ATTITUDE	2 SETTING	3 DELIVER- ABLES	4 TANGIBLES	5 ERGONO MICS	6 COPYING FACILITIES	7 UTILITY	
Approachable administrative staff	.904							.769
Courtesy of administrative staff	.882							.683
Courtesy of office staff	.855							.853
Staff caters for students' specific needs	.843							.895
Helpfulness of office staff	.832							.807
Cleanliness of the campus environment		.873						.715
Layout of lecture rooms		.785						.853
Lecture room furnishings		.780						.860
Cleanliness of lecture rooms		.728						.795
Easy to access facilities			.816					.811
Content consistent with course outline			.786					.880
Easy to acquire textbooks			.705					.874
Up to date content			.704					.679
Delivering on Promises			.557					.675
Boarding Accommodation				.873				.862
Laboratory materials				.862				.818
Common room				.679				.861

ITEM	Component							$h_2$
	1 ATTITUDE	2 SETTING	3 DELIVER- ABLES	4 TANGIBLES	5 ERGONO MICS	6 COPYING FACILITIES	7 UTILITY	
Temperature of lecture rooms					.854			.866
Lighting of lecture rooms					.765			.897
Photocopying facilities						.886		.906
Printing facilities						.838		.746
Relevancy of content to chosen career							.852	.810
Qualified teaching staff							.678	.768
Content transferrable to other courses							.670	.764
<b>Cronbach Alpha (<math>\alpha</math>)</b>	.882	.874	.782	.747	.902	.871	.699	
<b>OVERALL CRONBACH (<math>\alpha</math>)</b>								.886
<b>Percentage of Variance Explained</b>	30.389	15.040	9.966	8.246	6.762	5.962	4.668	<b>81.033</b>
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 10 iterations.								

Checks subsequently conducted, on responses of the items comprising the SSS used in the main study, to determine the ability of the instrument to repeatedly measure what it intends to measure revealed an overall alpha level of 0.89 for the satisfaction ratings and 0.89 for the importance (expectation) ratings. Given that alpha levels were above 0.70 the inference is that the instrument is a reliable one.

### 3.5 Analysis of Data

In preparation for data analysis, the data was cleaned. A missing value analysis revealed that there were 22.42% of missing values corresponding to 148 cases. Procedures which exist to deal with missing data are pairwise *deletion*, *list wise deletion*, *single imputation*, *multiple imputations* and *maximum likelihood estimation*. Allison (2001), Baraldi and Enders (2010), Rubin (1976), and Schafer and Graham (2002) recommend using multiple imputations since this method is least likely to produce biased results. They warned against using traditional techniques - deletion and single imputation - for dealing with missing data. Parent (2012) suggests that researchers consider whether they need complete data sets and if they do not they could use pairwise deletion or pairwise inclusion. Graham (2012) asserts that analyses which do not require hypotheses testing can use the Expected

Maximization (EM) technique to impute a single data set for analyses. The EM technique is regarded as one alternative to listwise deletion (Roth, 1994). The researcher used listwise deletion to deal with the missing data since the sample size was large enough not to affect statistical power and the method despite its shortcomings tend not to produce Type I errors and is an "honest" method for dealing with missing data (Allison, 2001; Allison, 2014). Consequently, the sample used in the analysis of data was reduced to 512.

Section 3.5.1 outlines the method used to analyse the quantitative responses and Section 3.5.2 explains how the qualitative data, associated with the subjectivist approach, was analysed in a study designed using the positivist philosophy.

### **3.5.1 Analysis of Quantitative Data**

The Expectation Disconfirmation Theory was the model used to operationalise the research. The researcher adapted the equations developed by (Elliot & Shin, 2002) to specify the Expectation Disconfirmation Model. Pareto Charts, a managerial tool used in quality control where 20% of the attributes are responsible for 80% of the variation (Grosfeld-Niry, et al., 2007) was used to identify drivers of student satisfaction on which to direct improvement efforts.

The Overall Satisfaction Score (OSS) for each of the dimensions Attitude, Tangibles, Setting, Course Deliverables, Ergonomics, Copying Facilities, and Utility was determined using the equation:

$$OSS = \sum_i W_i G_{ij}$$

Equation 3.1

Where:

$W_i$ : Weight (relative importance) of the *ith* respondent on the attribute determined based on the student survey.  $W_i$  represents an overall viewpoint of all the respondents on the *j – th* attribute.  $W_i$  was found by summing the expectation (importance) ratings given by all the respondents for a

statement and dividing by the sum of the ratings given by all the respondents on all the statements measuring the dimension of interest.

$G_{ij}$ : Gap (dissatisfaction or expectations surpassed) in the services for each respondent on each statement measuring the specific dimension were measured using the equation:

$$G_{ij} = A_{ij} - I_{ij}$$

*Equation 3.2*

*Where:*

$I_{ij}$  = Expectation: importance rating of the *ith* attribute by the *jth* respondent

$A_{ij}$  = Satisfaction: perception rating by the *jth* respondent on the *ith* attribute

The difference between the satisfaction and importance ratings ( $A_{ij} - I_{ij}$ ) for each student was computed to form a 'Gap' score (Elliot & Shin, 2002) for each of the items comprising the data set measuring the dimensions Attitude, Tangibles, Setting, Course Deliverables, Ergonomics, Copying Facilities, and Utility. A positive score was interpreted as evidence of the university surpassing the expectation of students while a negative score was interpreted as evidence of dissatisfaction. A score of zero was interpreted as met expectations.

The product of the weighted score and gap score, for all the statements measuring each dimension, was summed to obtain the OSS for each student. The **OSS** was interpreted using the benchmarks: excellent:  $\geq 1$ ; good: between 0 and 1; fair: between 0 and  $-1$ ; and poor: less  $\leq -1$  (Elliot & Shin, 2002).

For meaningful representation on the Pareto Charts and ease of interpretation, the OSS and GAP scores were categorised into the respective ranges through the recoding procedure in SPSS. The Gap scores were recoded: -1 thru -5 = Dissatisfied;

1 thru 5 - Delighted; Expectations Surpassed; Else – Satisfied. The OSSs were recoded:

1 thru highest Excellent; 0 thru 1 Good; -1 thru 0 fair; and Lowest Thru -1 Poor.

### 3.5.2 Analysis of Qualitative Data – Open Ended Section

The qualitative responses in the open-ended section of the questionnaire were transcribed, summarised, themes identified and categorised (Collis & Hussey, 2009). The themes were classified according to the dimensions in the study to which they relate. New themes which emerged were described according to the literature. The frequency and percentage of similar themes were established (Collis & Hussey, 2009) and used in conjunction with the quantitative data to provide answers to the research questions posed in the study. Descriptions, provided by respondents, pertinent to the measurable dimensions were used to give voice to students lived experiences.

Table 3.9 provides a synopsis of the type of data collected and data analyses used in the study.

Table 3.9: Synopsis of Data Collected and Data Analyses

Research Questions	Type of Data	Data Analysis
1) <i>What are students' expectations of the services provided by the Caribbean university?</i>	Importance Data (quantitative) <b>Importance:</b> measured on 5-point Likert Scale: 5 = most important to 1 = least important  Student Comments Data (Qualitative)	Charts generated by SPSS Version 20 and Excel 2013  Weighted Importance Score  Descriptive Statistics: Frequency; Percentages Narratives
2) <i>How satisfied are students with the services provided by the Caribbean university?</i>	Satisfaction and Importance Data (quantitative) <b>Satisfaction:</b> measured on 5-point Likert Scale: 5 = very satisfied to 1 = very dissatisfied <b>Importance:</b> measured on 5-point Likert Scale: 5 = most important to 1 = least important  Student Comments Data (Qualitative)	Charts and tables generated by SPSS Version 20 and Excel 2013.  GAP formula  Overall Satisfaction Score ( <b>OSS</b> ) formula  Descriptive Statistics: Frequency; Percentages Narratives
3) <i>How satisfied are the students with the providers of services at the Caribbean university?</i>	Student Satisfaction and Importance Data (quantitative) for the Service Provider Statements measured on 5-point Likert Scale: 5 = very satisfied to 1 = very	Charts (Pareto) generated by SPSS Version 20  GAP formula

Research Questions	Type of Data	Data Analysis
	dissatisfied and 5 = most important to 1 = least important  Student Comments Data (qualitative)	Overall Satisfaction Score (OSS) formula  Descriptive Statistics: Frequency; Percentages Narratives

### 3.6 Justification of Methodology

The research was conducted primarily under the epistemology of a positivist. The study was designed using the survey methodology since it is consistent with the deductive approach; enabled variable measurement and catered for questions couched in terms of what and how like the ones in the proposed study: (i) What are students' expectations of the services provided by a Caribbean university? (ii) How satisfied are students with the services provided by a Caribbean university? (iii) How satisfied are students with the providers of services at a Caribbean university?

The deductive approach was employed since it allowed the researcher to use theory to identify variables “customer satisfaction”, “customer expectation”, “services” and “improved business performance” and formulate pertinent research questions for the study. Within the positivist approach employed by the researcher, minimal use was made of a focus group to provide face and content validity for the developed instrument. Berkeley University (2006) promote focus groups as a means through which a researcher could obtain additional information for the refinement of surveys. The subjectivist strategy enabled the responses in the open-ended section of the survey to be coded into themes associated with the research questions or emergent ones. The qualitative responses were used to substantiate the findings from the quantitative data obtained from participants. Even though Pareto Analysis is a tool formerly identified with industry, it has been used at higher education by Pavlović, et al. (2014) to identify “vital minority” of courses responsible for engineering students not passing examinations at the University of Niš. Pareto Analysis was employed in the study to detect drivers of



student satisfaction with the services offered by the Caribbean university on which management could concentrate improvement efforts.

### **3.7 Limitations of Research Design and Counteractive Measures**

Surveys can be administered face to face or online using web technology. A limitation of this methodology is that it restricts the number of questions that the researcher can ask and hence prohibits the obtaining of a wide range of data. Principal Component Analysis (PCA), a data reduction technique, reduced the 86 item Student Satisfaction Survey (SSS) piloted on a sample of 30 students, to a 24 item one. PCA allowed the researcher to overcome the shortcoming of the SSS which was reported as being too long by a member of the focus group and some respondents. Additionally, an open-ended question was provided to enable respondents to give any other information not requested by the questionnaire to allow for the reporting of "lived experience" and the obtaining of a broader range of data. The provision of an open-ended question enabled the researcher to cater for an observation made by some respondents during the Pilot that the questions required them to give general perceptions which serve to hide the negative ones they might have regarding the services provided to them by some persons.

Another limitation of the survey methodology lies in the necessity of having a good response rate from which to generalise about the population. Nulty (2008) notes that online surveys usually generate smaller response rates than face to face. He suggests, irrespective of the method used, but especially online, response rates can be improved using multiple techniques such as reminders and incentives. To ensure a good response, rate the researcher utilised the face to face survey methodology and had the participants in the sample fill the survey questionnaires at the time of distribution. Surveying students in their lecture rooms before the start of a lecture helped to overcome the disadvantage of dispersion and assembly and avoid the "timing" constraint encountered during the Pilot Study where few participants were able to meet at the time and location identified by the researcher. The researcher conducted the survey at a time when students were not preparing for a test/exam or other related

activity so that they could pay sufficient attention to the responses given. To circumvent the limitation related to the presence of the researcher causing respondents to provide socially desirable answers, the researcher stepped outside the lecture room while participants completed the **SSS**.

Pareto Charts are charged with producing information that is useful and useless (dimensions have almost similar frequency) hence making identification of critical factors difficult (Grosfeld-Niry, et al., 2007). To ensure inferences were made from useful information, the Pareto charts are examined to determine that the total frequency of the dimensions of interest in the study was above 60% (Grosfeld-Niry, et al., 2007).

### **3.8 Evaluation of other considered philosophies**

A consideration of the methodologies elucidated at 3.2 above indicates that in addition to the survey methodology a researcher using the deductive approach can use the experimental or archival methods. These approaches lend themselves to the determination of relationships or causation which were not the objectives of the study. Further, experimental studies require the use of a control and experiment group with some form of intervention to determine whether the treatment worked or not while archival studies make use of information that already exists. The survey methodology was deemed appropriate considering the aim of the study was to identify drivers of customer (student) satisfaction with the services offered by the Caribbean university.

A researcher also has the option to use an inductive approach to understand a phenomenon. Researchers using the inductive method usually do not start with theory to identify variables or develop a theoretical framework for the study as has been done for the study. However, an aspect of the subjectivist approach was used minimally through the provision of an open-ended section on the survey to enable participants to give "voice" to any other matter of concern to them regarding the services provided to them by the Caribbean university. The responses had to be coded similarly to data obtained by a researcher operating under the subjectivist paradigm.

Given the aim of the study was to determine drivers of customer (student) satisfaction with the services offered by the Caribbean university, this made the hermeneutics, participative enquiry, ethnographic action research methodologies inappropriate for use. Hermeneutics concentrate on historical meaning within context; participative enquiry uses the participants to collect data; ethnography to gain an in-depth understanding and the researcher is required to immerse himself in the group's setting; and action research used to bring about conscious change in partly controlled environment (Collis & Hussey, 2009).

### **3.9 Ethical Considerations**

Ensuring that research is conducted ethically is critical to the success of theses or dissertations (Bryman & Bell, 2011; Adams, et al., 2007). Many caveats have been proposed by Adams et al. (2007), Bryman and Bell (2011) and Greener and Martelli (2015) for checking that research is ethics compliant. (i) Research should not subject participants to harm; physically or emotionally (Bryman & Bell, 2011; Greener & Martelli, 2015). (ii) Participants should be treated with dignity (Bryman & Bell, 2011). (iii) Consent of participants should be obtained (Bryman & Bell, 2011; Greener & Martelli, 2015). (iv) Privacy of participants should be protected (Bryman & Bell, 2011). (v) Research data should be kept confidential (Bryman & Bell, 2011). (vi) Participants and organisations have the right to be kept anonymous. (vii) Researchers should not exaggerate aims or objectives (Bryman & Bell, 2011) or fabricate data and falsify results (Adams, 2007). (viii) The researcher should declare any sources of conflict, funding, and affiliations (Bryman & Bell, 2011). (ix) Research should be communicated honestly and clearly (Bryman & Bell, 2011). (x) The researcher should maintain objectivity throughout the data collection, analysis and reporting phases (Greener & Martelli, 2015). Data analysis should be appropriate (Adams, 2007) and findings should be presented in an unbiased manner (Bryman & Bell, 2011).

Before the commencement of the study and in keeping with the caveat for consent (Bryman & Bell, 2011; Greener & Martelli, 2015), permission was sought from the Deputy Registrar of the Caribbean

university, the gatekeeper, to conduct the research. Owing to ethical considerations the letter is not appended to this study. Permission from the participants was sought through a letter signed by the researcher (Appendix I). The letter informed participants of the purpose of the survey that their participation was voluntary, the uses to which the data obtained would be put and gave assurances of confidentiality. The letter also asked participants not desirous of being a part of the study not to fill the questionnaire. Before distributing the Student Satisfaction Survey (SSS) to students, the researcher asked their permission to conduct the research and reiterated the content of the letter requesting their consent. Participants who were not desirous of being a part of the study were asked not to fill the survey instrument. One participant indicated a desire not to fill the SSS, and another left the unfilled SSS on the desk. Efforts were made to disturb the research site minimally. The design of the research (survey) assured that participants came to no harm (Bryman & Bell, 2011; Greener & Martelli, 2015) and were treated with respect (Bryman & Bell, 2011). The survey did not require participants to give their names or any form of identification, and hence this served to assure their anonymity. The name of the organisation where the study was conducted was also kept anonymous by replacing the name of the university with its geographical location.

Throughout the study, great care was exercised to ensure that the evidence supported statements made or extended from other studies and that works used or cited in the study were accurately referenced using the Harvard Style to avoid cases of plagiarism. Before inputting the data into SPSS or Excel, the data was screened and cleaned. The researcher ensured that the data was accurately recorded by double checking inputs against the responses on the Student Satisfaction Survey. Data was analysed using a method, described in the scholarship of Elliot and Shin (2002), which modelled the Expectation Disconfirmation Theory, a widely used model for ascertaining customer satisfaction. At no time did the researcher present data or interpret it to mislead the reader. Interpretation of data was done considering the statistical analyses conducted.

### **3.10 Conclusion**

One cannot underscore sufficiently the importance of a researcher's overall philosophical approach in the selection of the appropriate research design and method. A researcher who does not understand the linkage between her ontology, epistemology and axiology is likely to run the risk of using the wrong research design and method to derive answers to research questions in addressing objectives. This chapter identified the methodology employed to provide answers to the research questions identified in the study in pursuit of the achievement of the aim and objectives of the study. The following chapter describes the quantitative and qualitative findings as per research question and identifies the emergent dimensions of student satisfaction.

## Chapter 4 FINDINGS

### 4. Introduction

The study aimed to determine drivers of student satisfaction with the services offered by a Caribbean university. Four research objectives and three research questions were identified as the means through which the aim of the study could be achieved. The objectives of the study were to: (i) determine the level of customer (student) satisfaction with the services offered by a Caribbean university; (ii) identify the factors that influence customer (student) satisfaction level with the services offered by a Caribbean university; (iii) provide management of Caribbean university with a means through which the business performance of the institution might be improved and (iv) identify the conceptual link between a Caribbean university and students' perception of the service it offers.

The chapter describes, as per research question, the results of the analyses conducted on the data for the 7 factors 24 item Student Satisfaction Survey. An open-ended section was provided on the questionnaire to allow students to give voice to their lived experiences of the services provided to them by the university. The responses to the open-ended section were grouped into themes according to the questions and dimensions to which they relate to supplement the findings of the close-ended questions. Emergent themes Responsiveness, Reliability, Security, Credibility, Communication and Value for Money were identified as six additional university service dimensions.

#### 4.1 Research Question 1: What are students' expectations of the services provided by the Caribbean university?

Students' expectations of the services provided by the Caribbean university were measured through the variables "Attitude of Staff", "Setting", "Course Deliverables", "Tangibles", "Ergonomics", "Copying Facilities", and "Utility".

##### 4.1.1 Students Expectations of the Attitude of Staff

The variable 'Attitude of Staff' was measured using the characteristics: "helpfulness of office staff", "staff caters for students' specific needs", "courtesy of administrative staff", 'courtesy of office staff'. Table 4.1 indicates that all the characteristics were considered most important and moderately

important by an almost proportionate percentage of the respondents. Responses to the characteristics using the most important ranking went from 56.3% for “Staff Caters for Students Specific Needs” to 47.3% for “Courtesy of Office Staff”. Very few respondents considered the characteristics as not important at all.

Table 4.1: Distribution of Students Expectation of Attitude Dimension

Attitude	Not Important at All	Low Importance	Neutral	Moderately Important	Most Important	Percent
Approachable Administrative Staff	2.5	4.9	9.2	32.2	51.2	
Courtesy of Administrative Staff	2.9	3.5	10.4	31.1	52.1	
Courtesy of Office Staff	2.7	4.3	13.5	32.2	47.3	
Staff Caters for Students Specific Needs	2.0	4.3	11.5	26.0	56.3	
Helpfulness of Office Staff	1.8	5.7	12.1	33.4	47.1	

N= 512

Students weighted importance ratings of the attitude dimension for the variable Staff Caters for Students Specific Needs suggest they had higher expectations regarding this item than for the four items measuring the dimension.

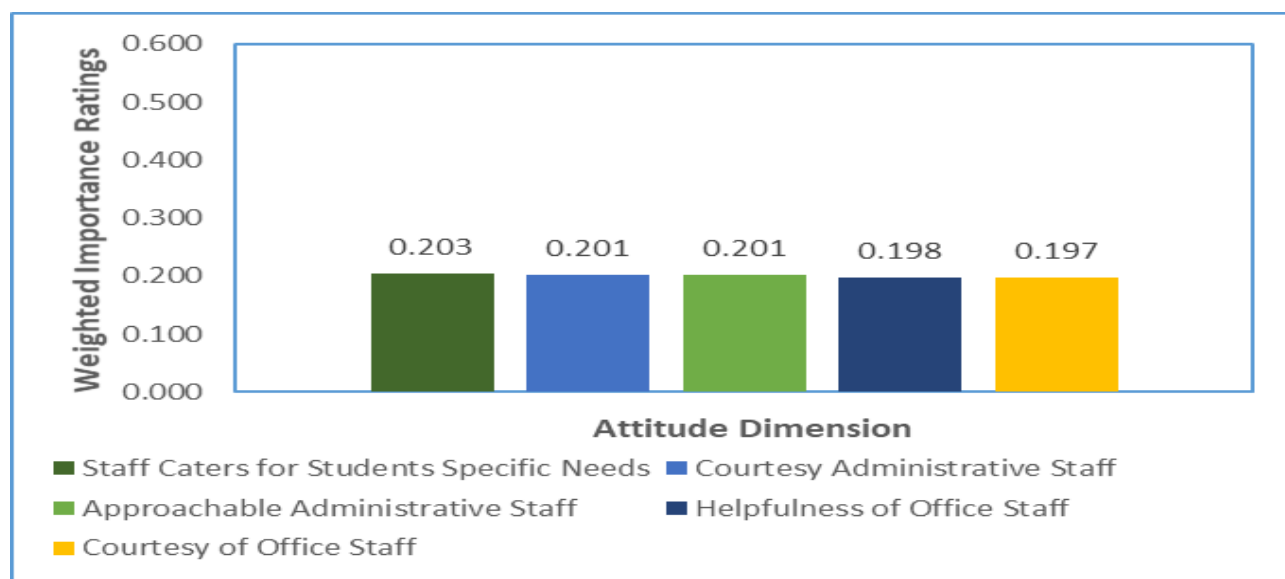


Figure 4.1: Students Weighted Importance Ratings with Attitude Dimension

### 4.1.2 Students Expectations of the Setting

Students' expectation regarding the 'Setting' was measured using four quality dimensions – “cleanliness of the campus environment”, “layout of lecture room” “cleanliness of the lecture room”, and “lecture room furnishings”. The details in Table 4.2 indicate that most of the respondents (70.9%) indicated that the cleanliness of the campus environment was most important to them. Many respondents 61.5% and 61.7 % respectively indicated that the cleanliness of the lecture rooms and lecture room furnishings were important to them. Few candidates (1.4%) expressed low importance concerning the characteristic “cleanliness of lecture room”.

Table 4.2: Distribution of Students Expectation of the Setting Dimension

Setting	Not Important at All	Low Importance	Neutral	Moderately Important	Most Important	Percent
Cleanliness of Campus Environment	1.4	2.5	6.6	18.6	70.9	
Layout Lecture Room	3.1	5.5	9.4	27.0	55.1	
Lecture Room Furnishing	2.0	4.3	10.0	22.1	61.7	
Cleanliness of Lecture Room	1.8	3.7	8.6	24.4	61.5	

N= 512

Of the variables measuring the Setting dimension, Figure 4.2 indicates that more was expected by students of the Cleanliness of the Campus Environment. Students appear to have had almost equal expectations of the Cleanliness of Lecture Room and Lecture Room Furnishing.



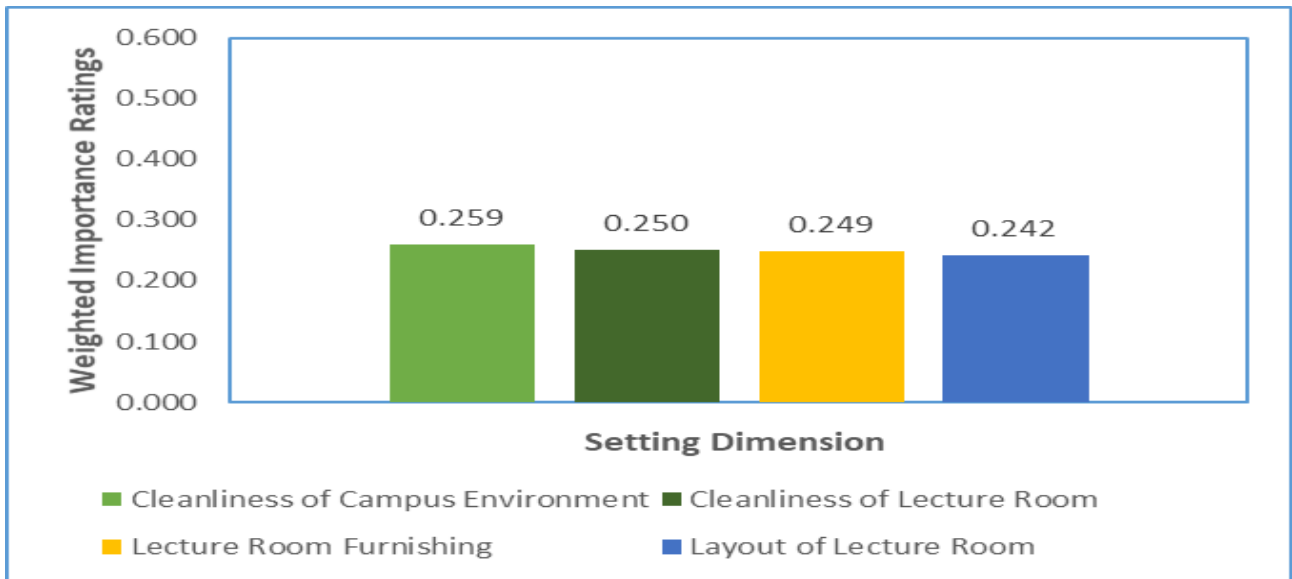


Figure 4.2: Students Weighted Importance Ratings with the Setting Dimension

The inference is that the setting in which teaching and learning occur presents a possible source of dissatisfaction for students.

#### 4.1.3 Students Expectations of Deliverables

The measurement of the variable ‘**Deliverables**’ considered the characteristics “Easy to Access Facilities”, “Easy to acquire Text Books”, “Up to date Content”, “Content Consistent with Course Outline”, and “Delivering on Promises”. The statistics in Table 4.3 show that most respondents indicated that all the characteristics of the variable were most important and moderately important. Content Consistent with Course Outline was considered by 73.6% of the respondents as most important. A little over half the respondents indicated that Delivering on Promise was most important. Very few (1.0%) considered “Content Consistent with Course Outline” as not important at all.

Table 4.3: Distribution of Students Expectation of Deliverables Dimension

Course Deliverables	Not Important at All	Low Importance	Neutral	Moderately Important	Most Important	Percent
Easy Access to Facilities	2.3	3.5	9.6	27.7	56.8	
Content Consistent with Course Outline	1.0	2.0	6.8	16.6	73.6	
Easy to Acquire Text Book	1.4	1.6	8.0	20.1	68.9	
Up to Date Content	1.4	2.5	6.3	19.7	70.1	
Delivering on Promises	3.1	4.7	12.9	27.9	51.4	

N= 512

The details in Figure 4.3 suggests that students' expectations of the Course Deliverables dimension for the variable Content Consistent with Course Outline were higher than the other variables measuring the dimension while expectations for the variables Up to Date Content and Easy to Acquire Text books were almost similar. Students had the lowest expectation for the item Delivering on Promises.

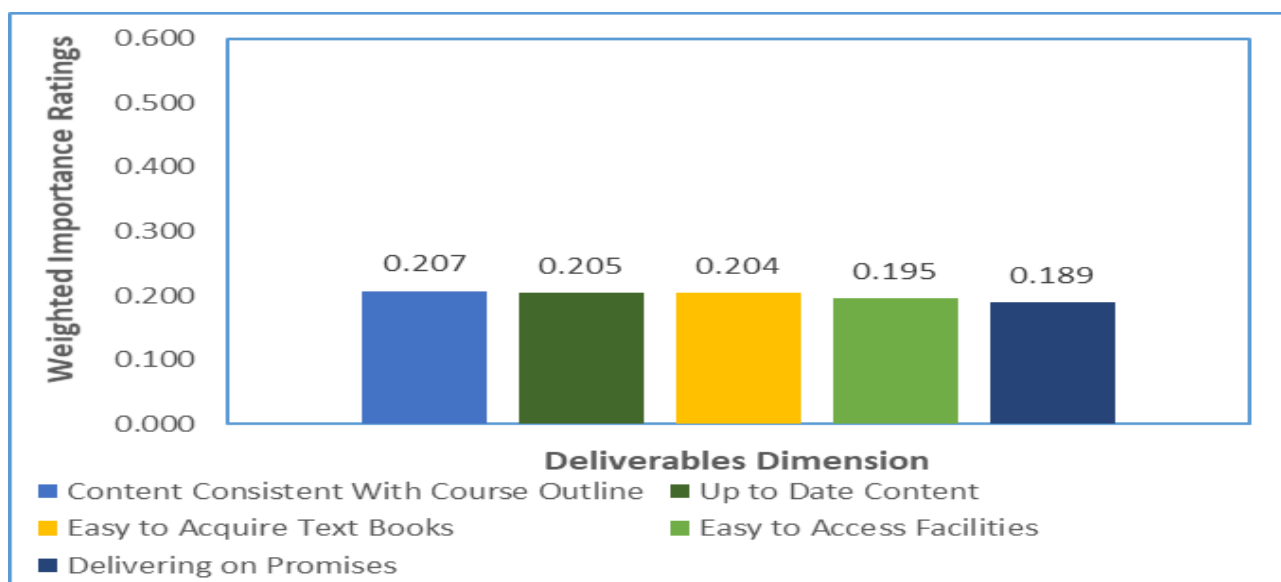


Figure 4.3: Students Weighted Importance Ratings of the Deliverables Dimension

#### 4.1.4 Students Expectation of Tangibles

The dimension **Tangibles** was measured using the items “Boarding Accommodation”, “Laboratory Materials”, and “Common Room”. Table 4.4 depicts that laboratory materials were considered by 58.8% of the respondents as most important and by 15.5% as moderately important. Respondents had almost equal expectations for the characteristics “Boarding Accommodation” and “Common Room” with 7.8% viewing them as of low importance.

Table 4.4: Distribution of Students Expectation of Tangibles Dimension

Tangibles	Not Important at All	Low Importance	Neutral	Moderately Important	Most Important	Percent
Boarding Accommodation	13.3	7.8	27.7	22.5	28.7	
Laboratory Materials	7.4	3.3	14.6	15.8	58.8	
Common Room	7.8	7.8	26.6	27.0	30.9	

N= 512

Figure 4.4 indicates that of the variables measuring the Tangibles dimension, students had the highest expectations for the variable Laboratory Materials.

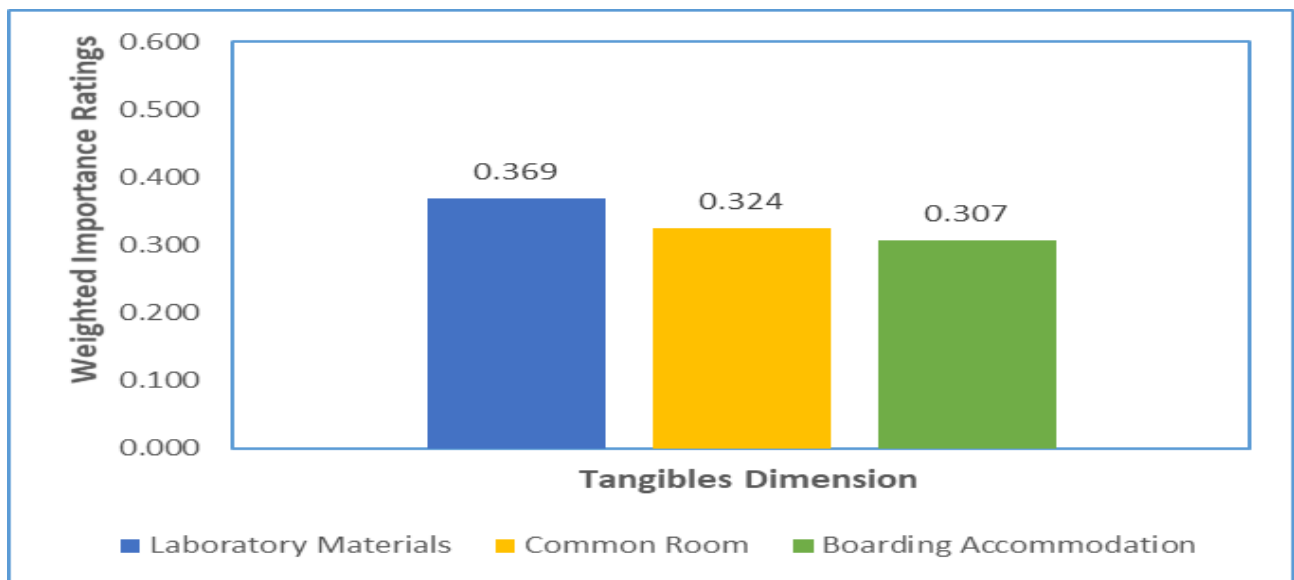


Figure 4.4: Students Weighted Importance Ratings for the Tangibles Dimension

The inference could be drawn that Laboratory Materials has the potential to impact students' expectations of the Tangibles dimension.

#### 4.1.5 Students Expectation of Ergonomics

The dimension 'Ergonomics' was measured using the items "Lighting of Lecture Rooms" and "Temperature of Lecture Rooms". Table 4.5 shows that the lighting of lecture rooms was perceived by 66.2% of the respondents as most important and by 20.7% as moderately important. A few (2.1%) regarded the lighting of lecture rooms as of low importance.

Table 4.5: Distribution of Students Expectation of Ergonomics Dimension

Ergonomics	Not important at All	Low Importance	Neutral	Moderately Important	Most Important	Percent
Temperature of Lecture Room	3.9	3.1	10.0	28.7	54.3	
Lighting of Lecture Room	2.1	3.9	7.0	20.7	66.2	

N= 512

Figure 4.5 indicates that students had high expectations for the variable Lighting of Lecture Room. Of all the weighted importance ratings measuring the expectations of students for all the measurable dimensions, the variable recorded the highest weighted importance rating of 0.510.

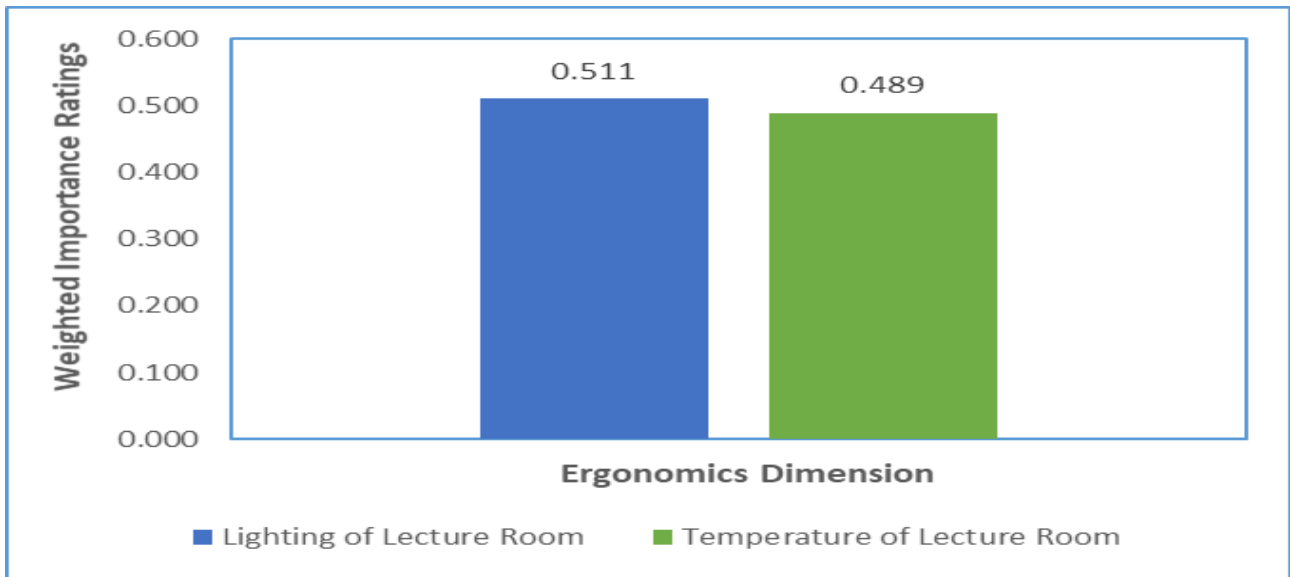


Figure 4.5: Students Weighted Importance Ratings with the Ergonomics Dimension

It could be advanced that students possessed the higher expectation for the variable Lighting of Lecture Room.

#### 4.1.6 Students Expectation of Copying Facilities

Photocopying Facilities and “Printing Facilities” were the measurable items comprising the dimension ‘Copying Facilities’. The details in Table 4.6 reveal that little over half (58%) of the respondents indicated that photocopying facilities were most important and moderately important. Very few (1.4%) respondents viewed photocopying and printing facilities were not important at all.

Table 4.6: Distribution of Students Expectation of Copying Facilities Dimension

Copying Facilities	Not Important at All	Low Importance	Neutral	Moderately Important	Most Important	Percent
Photocopying Facilities	1.4	2.9	10.2	27.5	58.0	
Printing Facilities	1.4	2.3	10.4	24.0	61.9	

N= 512

Figure 4.6 reveals that students’ expectations for the variable Printing facilities were higher than that of Photocopying Facilities.

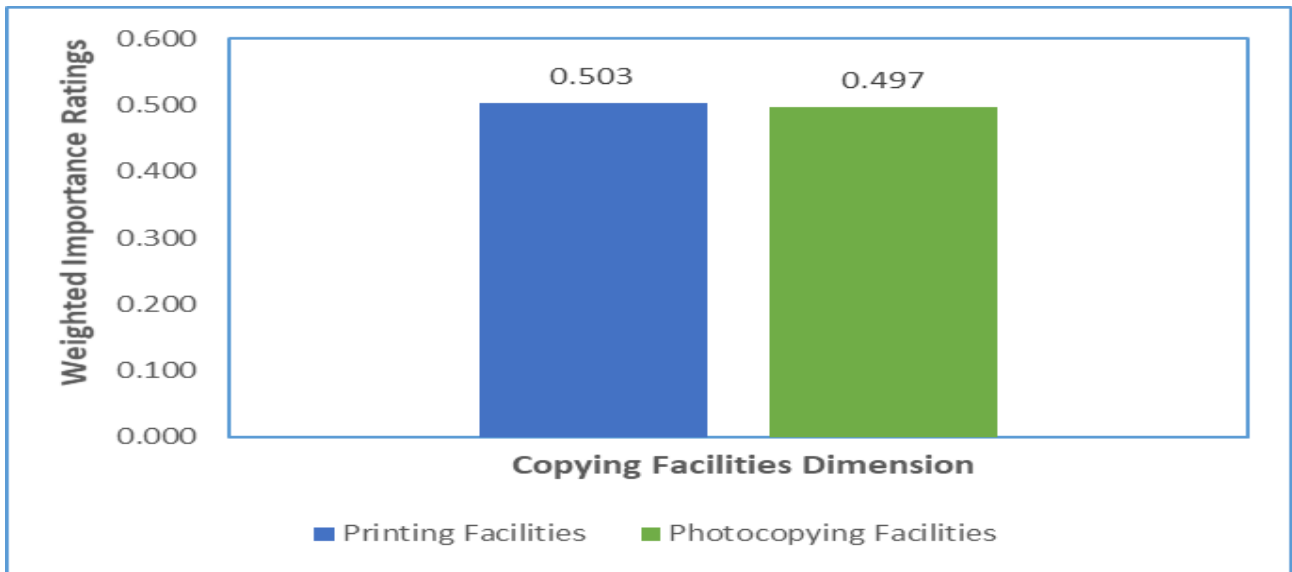


Figure 4.6: Students Weighted Importance Ratings for the Copying Facilities Dimension

While the support services of printing and photocopying facilities were regarded by most respondents as most important, the indications are that respondents had higher expectations of the printing facilities. It could be argued that printing facilities appear critical to students' expectation of the services provided by the university and could impact student satisfaction.

#### 4.1.7 Students Expectation of Utility

The measurable dimension '**Utility**' comprises the items "Relevance of Content to chosen Career", "Qualified Teaching Staff" and "Transferability of Content to Chosen Career".

The statistics in Table 4.7 pinpoint that respondents had high expectations regarding the variable "Qualified Teaching Staff" and "Relevance of Content to Chosen Career". Most respondents (83%) viewed qualified teaching staff as most important. The relevancy of content to their chosen career was considered as most important by 68% of the respondents and by 19.9% as moderately most important.

Table 4.7: Distribution of Students Expectation of Utility Dimension

Utility	Not Important at All	Low Importance	Neutral	Moderately Important	Most Important	Percent
Relevance of Content to Chosen Career	2.1	2.1	7.8	19.9	68.0	
Qualified Teaching Staff	1.4	1.4	5.1	9.2	83.0	
Content Transferrable to Other Courses	3.1	2.5	12.3	27.7	54.3	

N= 512

Respondents had higher expectations for the variable Qualified Teaching Staff (Figure 4.7).

Expectations were lower for the variable Content Transferrable to Other Courses

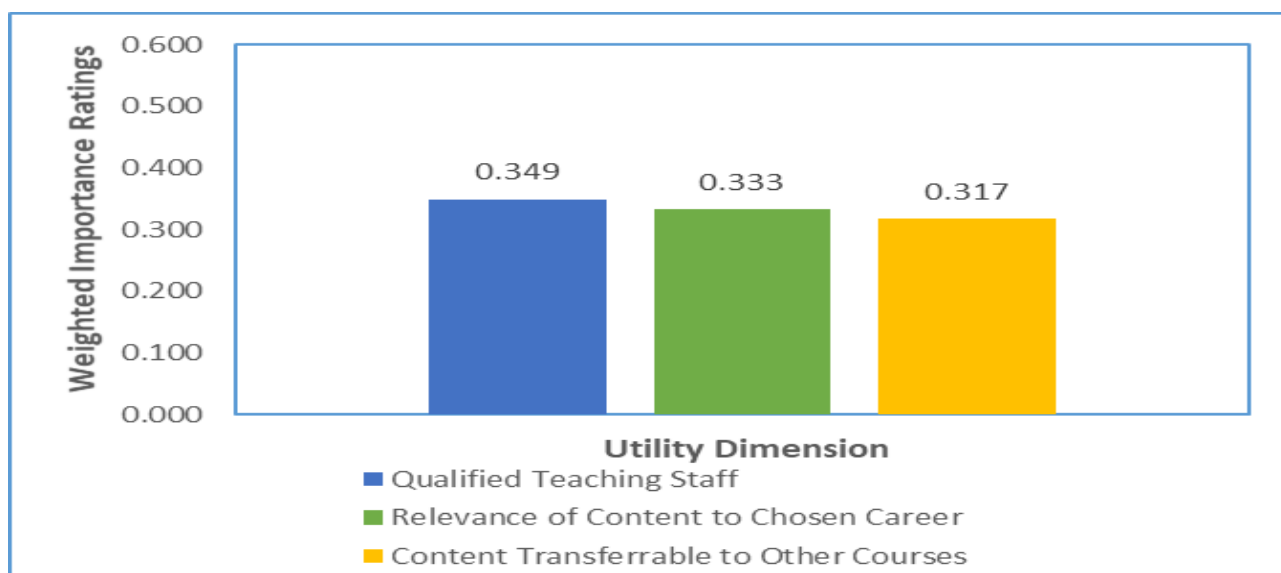


Figure 4.7: Students Weighted Importance Ratings of the Utility Dimension

While all the items measuring the Utility dimension were rated by the majority of respondents as most important, the majority of students had high expectation of the item Qualified Teaching Staff. Noteworthy is the high expectation of students regarding the relevancy of content to chosen career and the findings of Gruber et al. (2010) that a significant relationship exists between student satisfaction and the ‘relevance of teaching to practice’. However, the finding suggests that a possible area for immediate attention by the university is the variable “Qualified Teaching Staff”.

The Ranked Importance Ratings of Students' Satisfaction in Figure 4.8 groups the measured dimensions into four distinct groups suggesting that some items were considered more important to students than others.

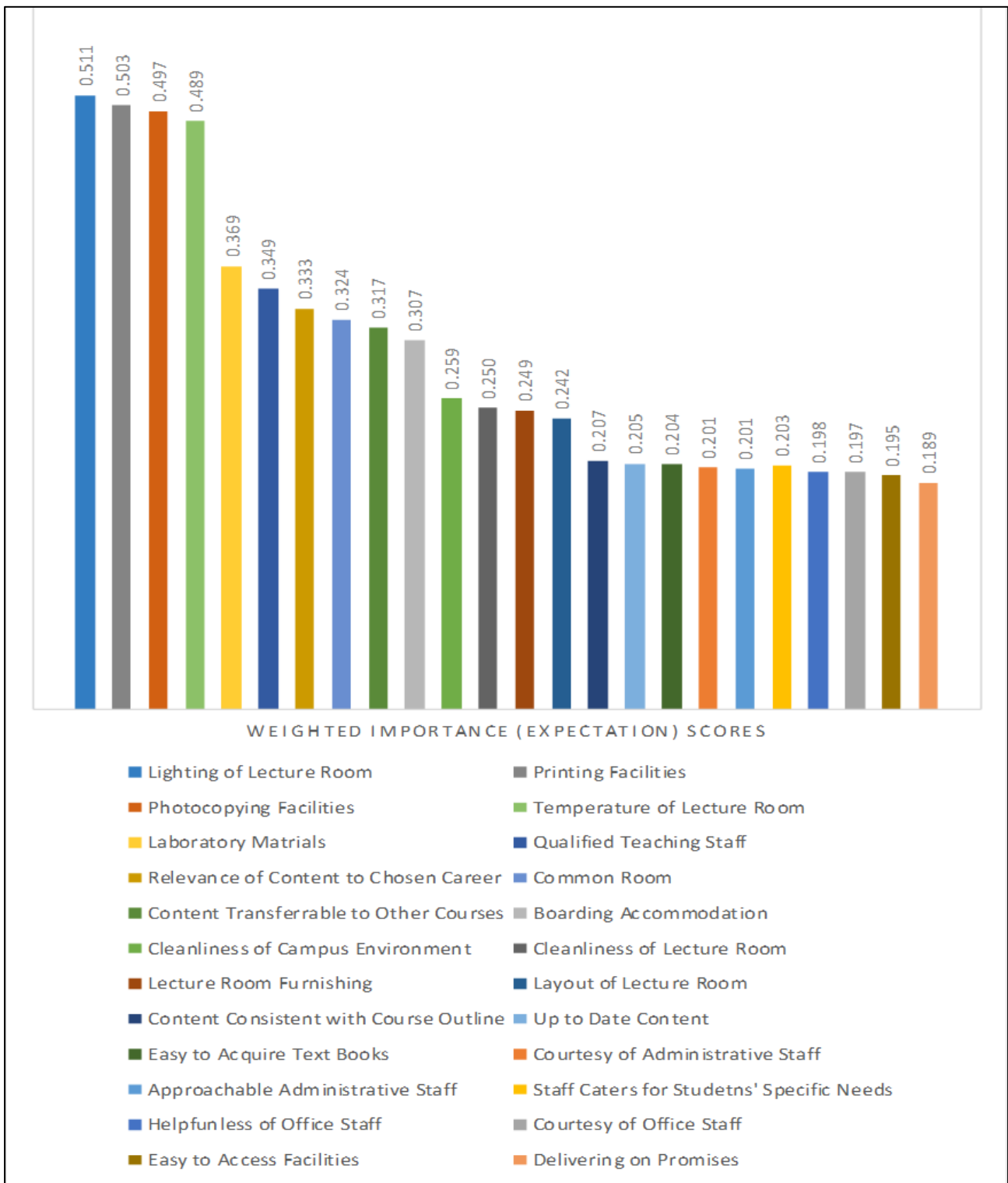


Figure 4.8: Ranked Importance Factors of Students' Satisfaction



## **4.2 Research Question 2: How satisfied are students with the services provided by the Caribbean university?**

The dimensions “Attitude”, “Setting”, “Course Deliverables”, “Tangibles”, “Ergonomics”, “Copying Facilities”, and “Utility” were examined to provide the answer to this question.

The difference between the satisfaction and importance ratings,  $A_{ij} - I_{ij}$ , for each student was computed to form a ‘Gap’ Score,  $G_{ij}$ , (Elliot & Shin, 2002) for each of the variables comprising the dimensions of interest. A positive Gap score was interpreted as the university delighting (surpassing expectations) students on the variable in question; a negative score as dissatisfaction; and score of zero as satisfaction – met expectations.

The product of the weighted score and gap score, for all the items measuring the dimensions “Setting”, “Deliverables”, “Tangibles”, “Ergonomics”, “Copying Facilities”, and “Utility” were summed to obtain an Overall Satisfaction Score (**OSS**) for each student. An **OSS** of  $\geq 1$  is assessed as excellent; between 0 and 1 as good; between 0 and  $-1$  fair; less  $\leq -1$  as poor (Elliot & Shin, 2002).

The narratives and themes identified from them are in conjunction with the statistical findings to provide additional insights regarding students’ satisfaction level with the services provided by the Caribbean university.

### **4.2.1 Students Satisfaction with the Setting**

The Setting refers to the environment in which educational experiences take place (Shostack, 1977).

The details in Table 4.8 indicate that students were more dissatisfied than satisfied with the services related to the Lecture Room Furnishings followed by the Layout of the Lecture Room. Expectations for the variables related to the Setting were surpassed in some instances. Thirty-two percent of the students appeared satisfied with the cleanliness of the lecture room which 11.7% of the students indicated that they were delighted.

Table 4.8: Distribution of Students' Satisfaction with the Setting Dimension

Setting	Dissatisfied	Met Expectations	Expectations Surpassed	Percent
Cleanliness of Campus Environment	61.3	31.4	7.2	
Layout Lecture Room	65.6	24.0	10.4	
Lecture Room Furnishings	70.3	20.9	8.8	
Cleanliness Lecture Room	56.1	32.2	11.7	

Narratives of 43 (12.95%) of the students surveyed support the findings that students were mostly dissatisfied with the setting in with their educational experiences took place. Typical themes in the narratives relating to the setting were: State of the Buildings; Cleanliness of the Environment; Cleanliness of the Facilities; Layout of lecture room; Lecture room furnishings. Connected to the themes were the narratives:

- Student No. 022 “The environment of the university is not conducive for students”.
- Student No. 072 “The buildings are very old and when in class you can get wet”.
- Student No. 082 “Not enough bins around the compound”.
- Student No. 087 “They should also provide a place so students can sit and eat”.
- Student No. 323 “... our second home is infested with dogs”
- Student No. 339 “The drains are filled with weeds ...”.
- Student No. 465 “Unwanted visitors – I find it very comical that the University employ horses and dogs, as they are seen all the time on campus”.
- Student No. 473 “Washroom facilities need to be more hygienic”.
- Student No. 489 “The seating arrangements in the classroom should be better”.
- Student No. 636 “... the classroom should be more tidy”.
- Student No. 642 “The university needs a lot more resources (bigger classrooms....)”.

Inconsistent with the narratives is the comment of Student No. 022: “I am satisfied with our faculty and the services they provide”. It is posited that the positive comment could explain the findings that the expectations of a few students were met and even surpassed by the university or point to a possible bias in that student with complaints were more likely to complete the narratives.

#### 4.2.2 Students Overall Satisfaction with the Setting

The overall satisfaction of students as depicted in Figure 4.9 suggests that most students considered the setting as poor or fair while few considered it as excellent.

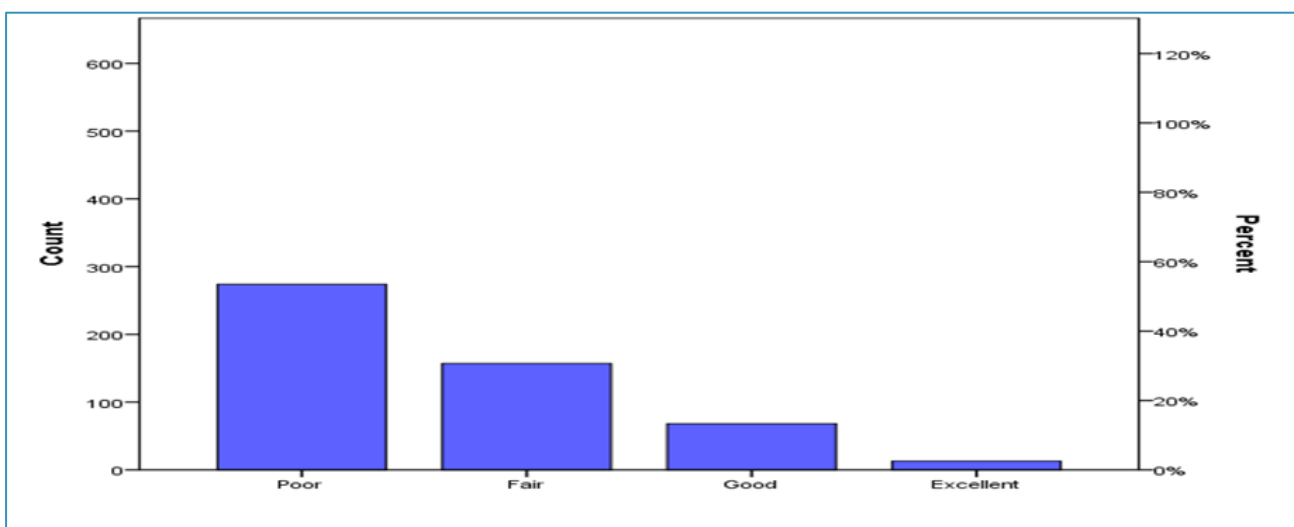


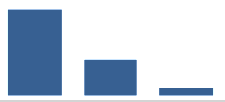
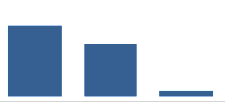
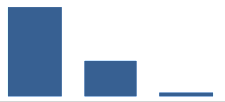

Figure 4.9: Students Overall Satisfaction with the Setting Dimension

Students appear to have varying levels of satisfaction with the setting in which their educational experiences take place. An OSS of poor was assessed for the majority of students suggesting that the variable might be a driver of student satisfaction at the university.

#### 4.2.3 Students Satisfaction with the Deliverables

The appropriateness of teaching methods, availability of suitable teaching and learning resources, timing of lectures and other items needed for the successful delivery and completion of a course of study (Own). The details in Table 4.9 show that students were dissatisfied with the Deliverables with the greatest level of dissatisfaction (73.2%) registered for the ease with which text books can be acquired. Noteworthy is the statistics 40.6% for met expectations on the variable Content Consistent with Course Outline suggesting that students were satisfied with the variable.

Table 4.9: Distribution of Students' Satisfaction with the Deliverables Dimension

Course Deliverables	Dissatisfied	Met Expectations	Expectations Surpassed	Percent
Easy to Access Facilities	64.3	27.9	7.8	
Content Consistent with Course Outline	52.5	40.6	6.8	
Easy to Acquire Text Books	73.2	23.8	2.9	
Up to date Content	66.6	27.9	5.5	
Delivering on Promises	66.6	24.8	8.6	

In addition to the prior identified themes Easy to access facilities, Content Consistent with Course Outline, Easy to Acquire Text Books, Up to date Content and Delivering on promises; emerging themes from the narratives of 17.47% of the students with indicative relationship to the dimension Deliverables were: In class interaction with all students; Availability of essential literature; Sufficient time for content coverage; Appropriate teaching methods; Convenience of lecture time and Motivating students. Narratives supportive of the themes identified are:

- Student No. 006 “Several services were promised to students of the University before they raised the student fees, upon two semesters that have gone by yet promises are not fulfilled”.
- Student No. 041 “.... more attention to every student would be appreciated”.
- Student No. 065 “Campus needs a .... as well as updated books”.
- Student No. 154 “Old fashioned way of delivery”.
- Student No. 247 “Interaction between students and teachers is important”.
- Student No. 340 “It is very important for me to take the opportunity to pinpoint my view on the dissatisfaction I have. Lecturers do not use handouts”.

It could be advanced that the above expectations and experiences negatively impacted students' satisfaction level with the variable Deliverables.

#### 4.2.4 Students Overall Satisfaction with the Deliverables

The analysis of Figure 4.10 reveals varying overall satisfaction scores for the Deliverables. Overall Satisfaction Scores ranged in descending order: poor, fair, good and excellent. Noteworthy is that very few of the Overall Satisfaction Scores indicated that students viewed the dimension as good or excellent.

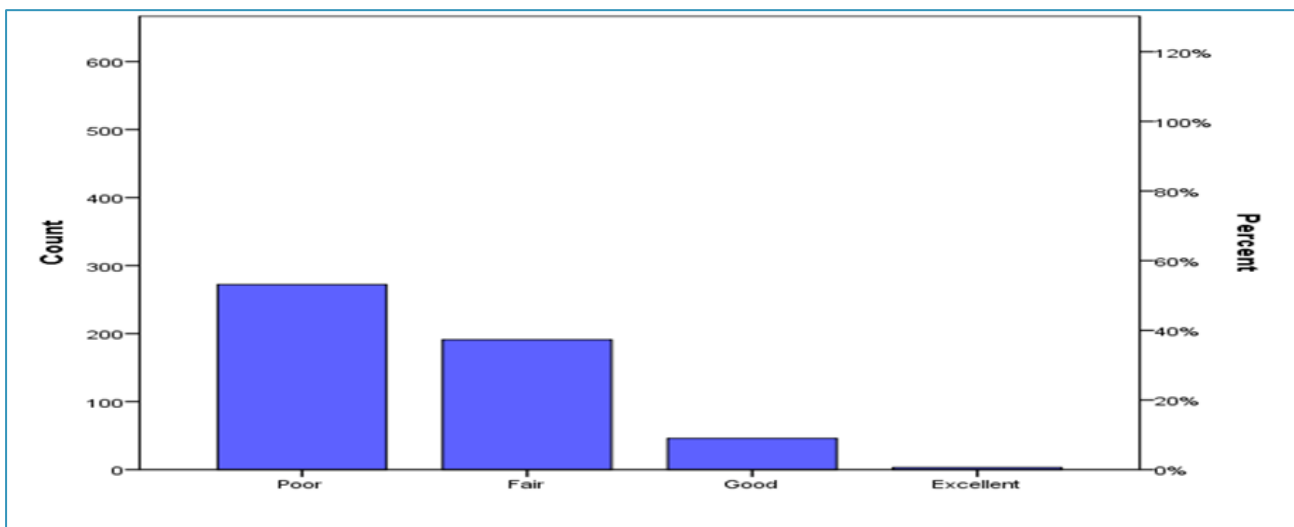


Figure 4.10: Students' Overall Satisfaction with the Deliverables Dimension

The findings suggest that students' satisfaction with the dimension "Deliverables" was poor in the majority of cases. Typical levels of overall satisfaction surrounded the variables identified at 4.2.3. Exceptionally, the following statement is noteworthy regarding the dimension deliverables.

Student No. 158: "Some classes are too big (large) and I pity the lecturers whenever they have to mark test questions"

#### 4.2.5 Students Satisfaction with the Tangibles

Tangibles connote the physical evidence of the service provided to customers (Parasuraman, et al., 1985). The details in Table 4.10 reveal that 64.8% of the students were dissatisfied with the tangible service of laboratory materials while 51.0% were dissatisfied with the variable common room. The expectations for at least 25% of the students surveyed appeared to have been met for all the variables measuring this dimension. Supportive of the indications of dissatisfaction with the Tangibles is the comment of Student No. 158:

"All the classrooms must be equipped with technological materials if all are expected to be prepared to impart knowledge to our pupils".

Table 4.10: Distribution of Students' Satisfaction with the Tangibles Dimension

Tangibles	Dissatisfied	Met Expectations	Expectations Surpassed	Percent
Boarding Accommodation	43.2	38.5	18.4	
Laboratory Materials	64.8	25.6	9.6	
Common Room	51.0	35.5	13.5	

#### 4.2.6 Students Overall Satisfaction with the Tangibles

The OSS for most of the students surveyed indicated that the dimension “Tangibles” was mainly poor. To a lesser degree, the OSS showed a rating of good. Very few respondents OSS could be interpreted as excellent (Figure 4.11).

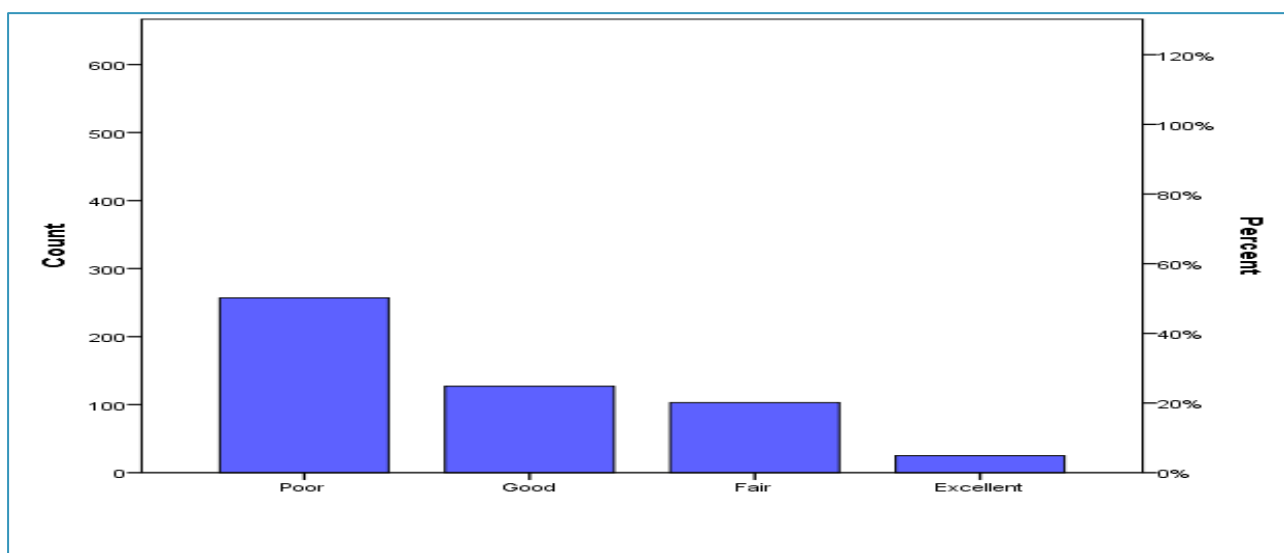


Figure 4.11: Students' Overall Satisfaction with the Tangibles Dimension



Of the 332 students who responded to the open-ended section, narratives of 177 (53.31%) highlight variables connected to the Tangibles dimension. These were Internet Access, Medical Care, Toilet Facilities and Supplies, Sufficiency of Furniture, Library, Common Room, Laboratories, Sports facilities, Insufficient Classrooms, Recreational Facilities, and Cafeteria Facilities, and Differently Aabled Facilities. The matter of internet connectivity was the main theme. A sample of students comments consistent with the general finding of dissatisfaction with the Tangibles dimension are:

- Student No. 192: “Should have enough furniture in each classroom....”.
- Student No. 201: “I have a special needs friend who say the facilities the university provides for him are not adequate and at times he feels alone when trying to pursue his education. I had also noticed that there are ramps for wheel chairs to enter the library no ramps to go upstairs where the books actually are”.
- Student No. 626: “With limited Wi-Fi capabilities how can you expect students to find information to compete on a global Level”.
- Student No. 634; “The university said it offers free “Wi-Fi” but apparently you have to be at certain “cracks” and corners to access it and at times you cannot connect at all”.

#### 4.2.7 Students Satisfaction with the Ergonomics

Ergonomics is the design of furniture and method employed in lecture rooms to ensure students comfort and wellbeing during the teaching and learning sequence (Adapted from International Ergonomics Association, 2016). The data in Table 4.11 indicates that most of the students surveyed were dissatisfied with the temperature of the lecture room while a little over half were dissatisfied with the lighting of the lecture room.

Table 4.11: Distribution of Students' Satisfaction with the Ergonomic

Ergonomics	Dissatisfied	Met Expectations	Expectations Surpassed	Percent
Temperature of Lecture Room	72.1	6.6	6.6	
Lighting of Lecture Room	57.2	33.8	9.0	

In addition to the themes identified in Table 4.11 the narratives of 41(12.35%) of the students surveyed pinpointed the themes Durability of Furniture, Provision of Furniture for Left Handed Students, and Comfort of Furniture. While the majority of students appear dissatisfied with the Ergonomics as it relates to the temperature of the lecture rooms, the following comment tends to support the findings that there were instances where the expectations of students were met or surpassed for the dimension.

- Student No. 133 “The temperature and lighting of the lecture rooms are good. However, the room depends heavily on natural lighting and ventilation”

#### 4.2.8 Students Overall Satisfaction with the Ergonomics

The majority of respondents' overall satisfaction score classified the ergonomics of the lecture rooms as poor (Figure 4.12).

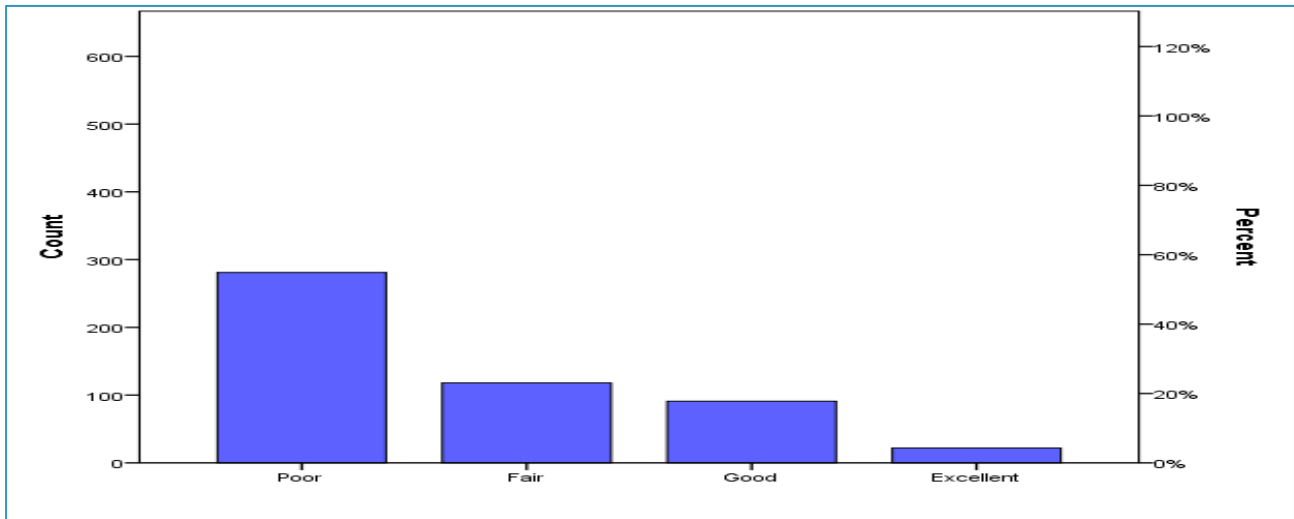


Figure 4.12: Students' Overall Satisfaction with the Ergonomics Dimension

Of the 332 students who responded to the open-ended section 42 (12.65%) of the written comments could be linked to the dimension Ergonomics. The comments of students related Lighting of Lecture Room, Temperature of Lecture Room, Durability of furniture, Furniture for left-handed students, Comfort of furniture, and Ventilation of Lecture Rooms. The narratives below support the statistical inference of poor students' satisfaction with the dimension Ergonomics.

Student No. 097: "Many classrooms are not properly ventilated and are hot in the sunny days".

Student No. 108: "The lighting in the lecture room should really be better".

Student No. 210: "Not enough furniture to accommodate left handed students".

#### 4.2.9 Students Satisfaction with the Copying Facilities

The details in Table 4.12 reveal that the students surveyed were more dissatisfied with the printing facilities than the photocopying facilities. There were those who indicated that the services met their expectations while a minority indicated their expectations were surpassed.



Table 4.12: Distribution of Students' Satisfaction with the Copying Facilities

Copying Facilities	Dissatisfied	Met Expectations	Expectations Surpassed	Percent
Photocopying Facilities	58.6	31.8	9.6	
Printing Facilities	64.5	27.0	8.6	

Written narratives of 10 (3.01%) of the students surveyed suggest that the items: price exorbitant, faulty, building always crowded, provide facilities at cheaper or reasonable cost, inadequate to little photocopying and printing services, exerted minor pressure on students' dissatisfaction.

#### 4.2.10 Students Overall Satisfaction with the Copying Facilities

Figure 4.13 indicates that the overall satisfaction level of the students surveyed could in the main be described as poor and to a lesser degree good.

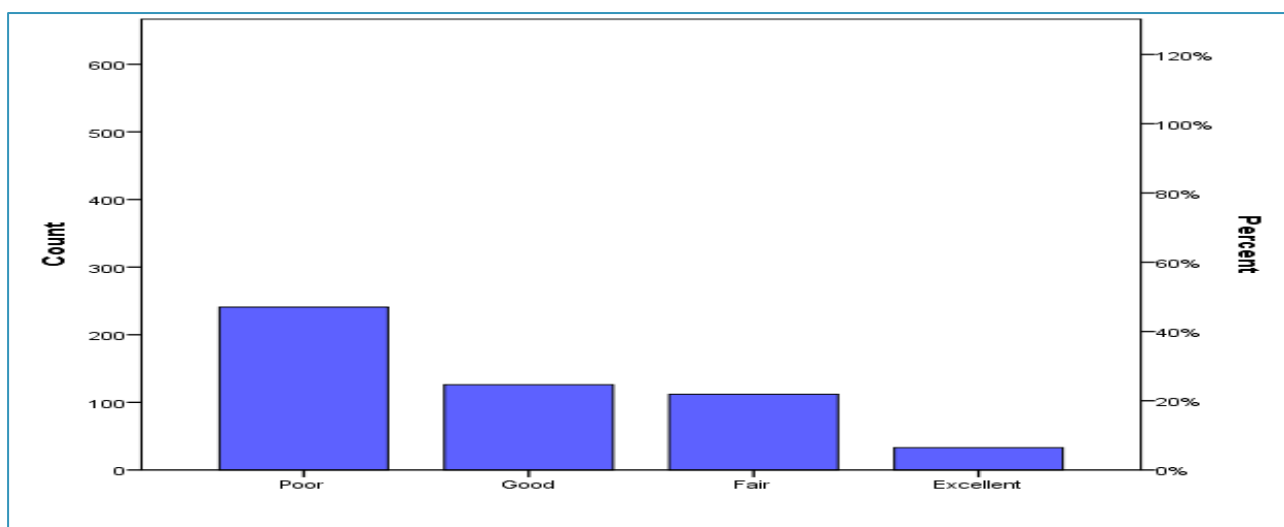


Figure 4.13: Students' Overall Satisfaction with the Copying Facilities Dimension

#### 4.2.11 Students Satisfaction with the Utilities

Utilities refer to the capability of teaching staff and applicability of knowledge imparted to career and other disciplines (Own). The data in Table 4.13 reveals that while there was some level of dissatisfaction with the variables comprising the dimension utility, a slightly less proportion of the students were satisfied with the variables Relevance of Content to Chosen Career, Qualified Teaching

Staff and Content Transferrable to Other Courses. A few of the students surveyed were delighted with the variables their expectations having been surpassed.

Table 4.13: Distribution of Students' Satisfaction with the Utility

Utilities	Dissatisfied	Met Expectations	Expectations Surpassed	Percent
Relevance of Content to Chosen Career	51.4	42.4	6.3	
Qualified Teaching Staff	53.5	42.6	3.9	
Content Transferrable to Other Courses	45.7	46.1	8.2	

#### 4.2.12 Students Overall Satisfaction with the Utility

Figure 4.14 indicates that the overall satisfaction scores of the students surveyed fell in the classification of fair, poor and good. A minority of the students' overall satisfaction scores revealed ratings of excellent.

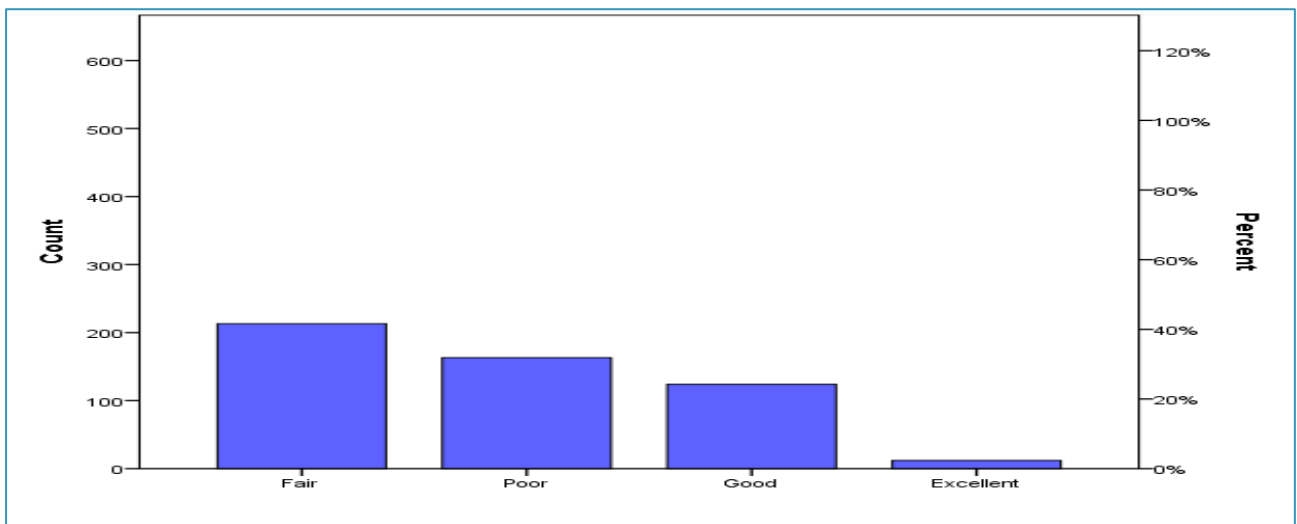


Figure 4.14: Students' Overall Satisfaction with the Utility Dimension

The inference is that students satisfaction with the dimension Utility were mixed and could be mostly considered as fair rather than poor, good or excellent. Written narratives of 49 (14.76%) of the students who responded to the open-ended question on the SSS also convey similar satisfaction levels. The

following comments are noteworthy and support the statistical finding that students had mixed experiences the Utility dimension.

Student No. 054: “Teacher seem to know their respective courses and teach them well”.

Student No. 463: “University of ... in my opinion is a work in progress. I have had mixed experiences with the institution but I believe it is getting better”.

### **4.3 Emerging Dimensions of Students Satisfaction**

The written narratives of students surveyed point to Responsiveness, Reliability, Security, Credibility, Communication and Value for Money as six additional dimensions impacting students’ satisfaction with the services provided by the Caribbean university.

#### **4.3.1 Responsiveness**

Responsiveness is the readiness to provide services (Parasuraman, et al., 1985). An analysis of the narratives provided by 26 (7.83%) of the students to the open-ended section of the **SSS** highlight the timeliness of the commencement of courses; non-recurrent changes to timetables; timely release of grades; timeliness of commencement of classes; accurate timetabling; and the timely issuance of student identification cards as factors impacting students’ satisfaction with the dimension Responsiveness.

Student No. 011 “Most courses took a while to start and the board does not compensate with us for the time and money lost. Many times we are in suspense on what course is about to start. Some courses have not lecturers and may start during the holiday leaving burden on student’s lives since more finance will be needed”.

Student No. 193 “Some lecturers have problems submitting grades in a timely manner”.

Student No. 414 “...tuition fees have been paid and yet we are awaiting our badges”.

The indications are that the students are dissatisfied with the processes prior to and after the teaching and learning owing to the delay of the university in delivering the concomitant services.

#### **4.3.2 Reliability**

Reliability is the performance of the service in the designated time (Parasuraman, et al., 1985). The most recurrent themes identified from the responses of 12 (3.61%) of the students to the open-ended section of the **SSS** suggest that covering of courses in the stipulated time, non-interruption of classes,

accuracy in billing and the giving of semester breaks were important to students' satisfaction with the services. Response suggestive of dissatisfaction regarding the dimension reliability were:

- Student No. 187      “The university NEEDS to stop attaching a \$10,000 late fee to students' invoice even though they did not pay late....”.
- Student No. 396      “My concern is that some lecturers do not full consume the three hours of lectures, instead there are two hours of lectures provided”.
- Student No. 490      “We need semester break”
- Student No. 658      “This campus suffers from persistent blackouts”.

Accurate billing, lecturers teaching for the assigned hours, the giving of semester breaks and having uninterrupted electricity appear to be central to students' dissatisfaction with the emerging theme reliability. The capitalisation of the word “needs” by student no. 187 suggest that accurate billing is a significant aspect of the service quality dimension at the university.

#### **4.3.3 Security**

Security refers to the freedom from danger, risk or doubt (Parasuraman, et al., 1985). From the narratives of 3 (0.90%) of the students, physical safety, confidentiality of student data and assessment information, lighting on campus and authorised access to the university were the emerging themes related to the dimension Security. The narratives below present these issues.

- Student No. 171      “Lights on campus should be improved.... aids activities that can be harmful to students”
- Student No. 116      “Campus needs upgrade its security especially the online access to Moodle where your personal data is not protected”
- “Security on campus is not good at all...the main gate makes no sense when all around there are access points”.
- Student No, 372      “The current security services is inefficient”.

Only a small percentage of students highlighted that the dimension of security was not good at the Caribbean university. The narratives of the students suggest that they were dissatisfied with the security provided to them and that they perceive the environment of the university as unsafe. The danger inherent in their statements has significance for the safety of students, staff and visitors to the university.

#### **4.3.4 Credibility**

Credibility refers to the trustworthiness, honesty, and believability (Parasuraman, et al., 1985) of the services provided by the Caribbean. About the dimension, 3 (0.90%) of the students' narratives referred to the reputation of the Caribbean university and fees being reflective of the quality of services.

Student No. 145      "I personally do not recommend this university to myself again or any member of my household, if the university is not upgraded".

Student No. 193      "Additionally, fees at the campus is too high for the mediocre work some of the lecturers put out".

Student No. 336      "More effort into being accredited".

From the statements of students numbered 145, 193 and 336, the credibility of the university to provide the kind and quality of services required by them appear to be questionable. The narratives suggest that the reputation of the university is at stake and likely to be further tarnished by negative word of mouth. Student no. 145 indicated that he/she would not give referrals to the university.

#### **4.3.5 Communication**

Communication is concerned with keeping customers informed in a language they can understand and listening to them (Parasuraman, et al., 1985). Themes identified from the narratives of 18 (5.42%) of the students indicated clear application and registration process; giving clear information; accurate information regarding examinations; organised and up-to-date website; notice of cancellation of classes; complaint and redress mechanism; feedback on complaints; clear instructions for assignments; academic advisement; navigation instructions; understandable marking and grading schemes were areas of concern to them. Comments typifying the variables tend to suggest some degree of dissatisfaction with the Communication dimension.

Student No. 058      "Communication, Communication, Communication!! Sometimes when one has an inquiry you may go to one department, someone tells you something and sends you to another department. When you go to this department, the information you get there contradicts the initial information".

Student No. 196      "No notice from lecturers when there are cancellation of classes".

Student No. 199      "There is no one to complain to who can look into our problems".

Student No. 214      "Lecturers need to give clear instruction on submission dates of assignment".

- Student No. 378      “There should be a guide to help first year students find various buildings”.
- Student No. 597      “If we have a problem with a lecturer, we have to “deal with it” because “complaining on a lecturer” is frowned upon....”.

The inference is made that students were not satisfied with the way in which the university communicated with them. The dissatisfaction appears connected to the system in place to redress complaints, the absence of notification by lecturers for classes which will not be held and the lack of clarity regarding how to locate specific building on campus.

#### **4.3.6 Value for Money**

Value for Money is the perceived quality of services received from every sum of money spent in tuition and facility fees (Adapted from Web Finance, 2016). In most cases, the narratives of 23 (6.93%) of students in the open-ended section of the SSS referred to fees. The general wording of the narratives indicated that students were dissatisfied with the dimension Value for Money.

- Student No. 011      “University does not value student’s time, effort and money. We paid for something, we expect our service. I am questioning my attendance at this institution every day, it is no longer about learning, it is now about passing. On a scale of 1-100, I am 2% satisfied”.
- Student No. 145      “The facilities fees need to be lowered since we are not granted everything covered on the fees list breakdown....”.
- Student No. 224      “... the tuition fees. It is very dissatisfying”.
- Student No. 339      “We are paying more fees we should be comfortable”.
- Student No. 441      “I find it very unreasonable for us students not to have adequate teaching facilities and yet still have to pay humongous \$50,000”.
- Student No. 519      “Giving the amount of money that is being paid through miscellaneous fees, the Wi-Fi service should be nothing but the best. This should really be looked into”.
- Student No. 628      “Dissatisfied with the services I am paying for such as up to date information”.
- Student No. 659      “I am after all paying and not given anything free”.

Value for money appears to be a driver of students’ satisfaction with the services offered by the university and could be linked to the views of Douglas, et al. (2014), that ‘Value for Money’ was primarily linked to the support services at higher education and Woodall et al. (2014) that a significant relationship exists between net value and the overall satisfaction of students.

#### 4.3.7 Overall Satisfaction Statements

The narratives of students which did not map on to an individual dimension or theme conveyed a sense of overall dissatisfaction with the services provided by the Caribbean university.

- Student No. 464: “I finding everything about this campus annoying and uncomfortable”
- Student No. 465: “I am just here to get my degree. I honestly find this place a waste of time, energy & funds”.
- Student No. 471: “This place sucks but can’t afford to go anywhere else so students just accept what they are given. We fight but that does not always end well for us”.
- Student No. 620: “As a working student I would like to have the best quality of service provided and not work all day and then come to ...and be treated like I’m not relevant”.

Generally, students appear to be more dissatisfied rather than satisfied or delighted with the items measuring the dimensions of interest. The finding is inconsistent with (Daniel & Berinyu, 2010) who found that students were dissatisfied with all the measurable service dimensions.

#### 4.4 Research Question 3: How satisfied are students with the providers of services at the Caribbean university?

Students’ satisfaction with the service providers was measured using the Attitude dimension comprising the items “approachable administrative staff”; “courtesy of administrative staff”; “courtesy of office staff”; “staff caters for student-specific needs”; and “helpfulness of office staff”. Attitude is defined as the courtesy, friendliness of ancillary and teaching staff, approachability of ancillary and teaching staff (Adapted from Parasuraman et al., 1985).

The difference between the satisfaction and importance ratings,  $A_{ij} - I_{ij}$ , for each student was computed to form a ‘Gap’ Score,  $G_{ij}$ , (Elliot & Shin, 2002) for each of the variables comprising the dimension. A positive Gap score was interpreted as the university delighting (surpassing expectations) students on the variable in question; a negative score as dissatisfaction; and score of zero as satisfaction – met expectations.

The product of the weighted score and gap score, for all the items measuring the dimension Attitude of Staff, were summed to obtain an Overall Satisfaction Score (OSS) for each student. An OSS of  $\geq$

1 is assessed as excellent; between 0 and 1 as good; between 0 and -1 fair; less  $\leq -1$  as poor (Elliot & Shin, 2002).

#### 4.4.1 Students Satisfaction with the Providers of Services

An examination of the statistics in Table 4.14 highlight that respondents were more dissatisfied than satisfied with the providers of services. A minority of respondents were delighted with the providers of service. The highest level of dissatisfaction was recorded for the item Staff Caters for Students' Needs (69.1%) with the lowest being the Courtesy of Office Staff (52.7%) which was marginally (0.8%) below the dissatisfaction for the Helpfulness of Office Staff.

Table 4.14: Distribution of Students' Satisfaction with the Providers of Services

Attitude	Dissatisfied	Met Expectations	Expectations Surpassed	Percent
Approachable Administrative Staff	60.2	29.1	10.7	
Courtesy of Administrative Staff	59.8	28.7	11.5	
Courtesy of Office Staff	52.7	35.7	11.5	
Staff Caters for Students Needs	69.1	24.2	6.6	
Helpfulness of Office Staff	53.5	35.5	10.9	

The written narratives of 15.36% of the students pinpointed many characteristics relating to the Providers of Services with which students appear dissatisfied. These were: more professionalism; hostile and unhelpful service providers; poor service for admissions; library cashier staff unmannerly, attitude of guards, lecturers and library staff attitudes need to be improved; friendlier staff; better staff at loan agency; staff need to be more approachable; practicum lecturers not confidential; lecturers display high level of favouritism.



#### 4.4.2 Students Overall Satisfaction with the Provider of Services

Figure 4.15 illustrates that students' overall satisfaction with the providers of services ranged in descending order from poor to excellent. Very few of the respondents' overall satisfaction score could be interpreted as excellent.

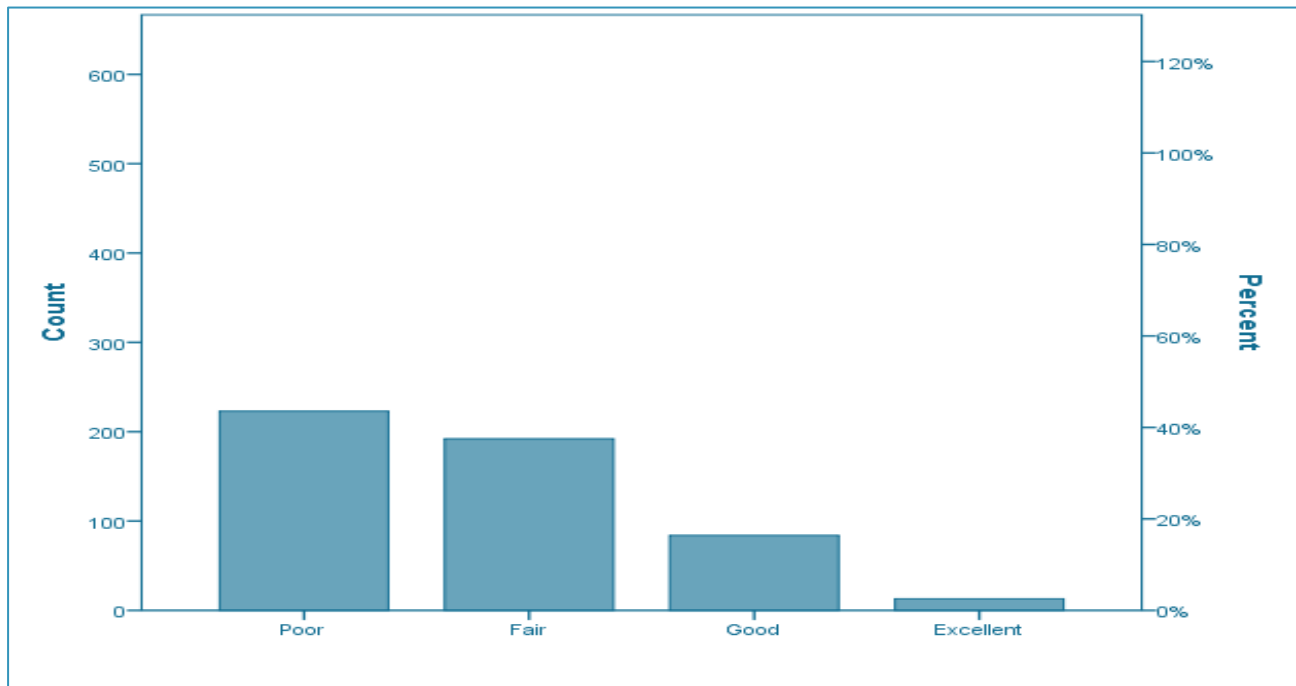


Figure 4.15: Students' Overall Satisfaction with the Providers of Services

Written narratives of the students surveyed tend to indicate a general sense of dissatisfaction with the attitude of the service providers.

- Student No. 086: “The University of . . . does not respect students. They do not take students seriously. Majority of the staff are impolite. All they are concerned with is tuition fees. Every student pays a facility fee of \$50,000 but do not get the benefit of them”
- Student No. 025: “I think the service provided should be improved. At times when you approach the service providers they are very hostile and treat your problem or issues as irrelevant. They are not helpful at all”.
- Student No. 145: “. . . some lecturers are approachable while others are not. . . .”
- Student No. 620: “I know that lecturers also work all day but they are being paid to teach and have patience with students”.
- Student No. 617 “I strongly believe that enough is not being done for students, most of the staff just come here to collect pay cheque. The long lines just to get service, their tone and attitude”.

While many of the comments which relate to students' satisfaction with the providers of service indicate that the attitude of the service providers was perceived as not satisfactory, the narrative of Student No. 146: "Like there is bad there are many good things and lecturers as well" suggest that not all the providers of service displayed undesirable attitude.

#### **4.5 Students' Expectation and Satisfaction by Study Year and Gender**

The findings indicated that students had high expectations of the services provided to them and were to a large extent dissatisfied with the service offerings of the Caribbean university but that there were instances where the university was able to meet or even exceed students' expectation on some service elements. Analyses using the Independent Sample T-Test were conducted to ascertain whether there were significant differences in the expectations and satisfaction of students as per study year and gender.

##### **4.5.1 Analysis of Students' Expectation and Satisfaction by First and Second Years**

Analysis of the individual items comprising the measurable dimensions using the Independent Sample T-Test revealed that there were significant differences at the  $p < .05$  level between the means of the Importance Ratings of first-year and second-year students for the items Helpfulness of Office Staff, Cleanliness of Lecture Room, Lighting of Lecture Room (Table 4.15). The inference is that students' expectations differed for these items but were similar for the other twenty-one items of the measurable dimensions.

The Independent Sample T-Test also revealed that there was a significant difference at the  $p < .05$  level between the satisfaction level of first and second year students for the items Content Consistent with Course Outline, Temperature of Lecture Room, Photocopying Facilities and Printing Facilities (Table 4.15). It could be advanced that the satisfaction of first and second-year students was different for these four items but similar for the other twenty items of the measurable dimensions.

Table 4.15: Test of Significance, Means of Importance and Satisfaction Ratings by First and Second Years

ITEM	IMPORTANCE			SATISFACTION		
	Mean for 1 <sup>st</sup> Year	Mean for 2 <sup>nd</sup> Year	P-Value of Difference	Mean for 1 <sup>st</sup> Year	Mean for 2 <sup>nd</sup> Year	P-Value of Difference
Approachable Administrative Staff	4.2171	4.3627	.181	3.2415	3.4608	.091
Courtesy of Administrative Staff	4.2561	4.2745	.866	3.2585	3.4608	.109
Courtesy of Office Staff	4.1854	4.1078	.484	3.3707	3.5686	.108
Staff Caters for Students Specific Needs	4.3000	4.3137	.898	3.0049	3.1765	.182
Helpfulness of Office Staff	4.2268	4.0098	.043	3.3244	3.5098	.144
Cleanliness of Campus Environment	4.5244	4.6569	.152	3.4610	3.3725	.538
Layout of Lecture Room	4.2951	4.0882	.072	3.0098	2.9706	.767
Lecture Room Furnishing	4.3951	4.2843	.299	2.7732	2.8137	.771
Cleanliness of Lecture Room	4.4463	4.2255	.030	3.4707	3.5098	.776
Easy to Access Facilities	4.3488	4.2647	.426	3.1195	3.0000	.383
Content Consistent with Course Outline	4.6049	4.5784	.760	3.9122	3.5098	.001
Easy to Acquire Text Books	4.5293	4.5686	.664	2.9366	2.7549	.197
Up to date Content	4.5366	4.5882	.575	3.2244	3.3725	.266
Delivering on Promises	4.1951	4.2059	.925	2.9415	2.9412	.998
Boarding Accommodation	3.4683	3.4020	.654	2.9439	2.8627	.461
Laboratory Materials	4.1707	4.0784	.498	2.7610	2.5392	.081
Common room	3.6780	3.5490	.337	2.7244	2.7745	.679
Temperature of Lecture Rooms	4.3049	4.0980	.068	2.3293	2.8725	.000
Lighting of Lecture Rooms	4.5122	4.1961	.002	3.4073	3.5882	.206
Photocopying Facilities	4.3780	4.3824	.965	3.2341	2.8529	.010
Printing Facilities	4.4268	4.4314	.962	3.1488	2.7647	.009
Relevance of Content to Chosen Career	4.5268	4.3627	.096	3.6537	3.6667	.921
Qualified Teaching Staff	4.7268	4.6471	.333	3.9390	3.7745	.179
Content Transferrable to Other Courses	4.2585	4.3431	.439	3.7073	3.6275	.484
<b>OVERALL MEAN</b>	<b>4.313</b>	<b>4.2508</b>		<b>3.2041</b>	<b>3.1977</b>	

#### 4.5.2 Analysis of Students' Expectation and Satisfaction by Gender

Analysis of the individual items comprising the measurable dimensions using the Independent Sample T-Test indicated that there were significant differences at the  $p < .05$  level between the means of the Importance Ratings of males and females for the items Cleanliness of Campus Environment, Boarding Accommodation, Laboratory Materials, Common Room and Photocopying Facilities (Table 4.16). It could be argued that while the study indicated that students had high expectations regarding the services provided to them that there were differences between the expectation of males and females for these five items of the measurable dimensions but not the other nineteen.

The analysis also indicated that there were no significant difference between the satisfaction of males and females at the  $p < .05$  level for eighteen items of the twenty-four measurable dimensions (Table 4.16). The findings support the quantitative and qualitative analyses that students were mostly dissatisfied with the services provided by the university.

Table 4.16: Test of Significance, Means of Importance and Satisfaction Ratings by Gender

ITEM	IMPORTANCE			SATISFACTION		
	Mean for Males	Mean for Females	P-Value of Difference	Mean for Males	Mean for Females	P-Value of Difference
Approachable Administrative Staff	4.1813	4.2886	.250	3.3125	3.2771	.753
Courtesy of Administrative Staff	4.2063	4.2914	.359	3.3938	3.2600	.220
Courtesy of Office Staff	4.0938	4.2029	.254	3.5625	3.3429	.038
Staff Caters for Students Specific Needs	4.3000	4.3000	1.000	3.0563	3.0429	.904
Helpfulness of Office Staff	4.2063	4.1686	.685	3.4750	3.3229	.162
Cleanliness of Campus Environment	4.4188	4.6086	.017	3.2188	3.5571	.006
Layout of Lecture Room	4.2875	4.2429	.652	2.8125	3.0914	.014
Lecture Room Furnishing	4.3625	4.3829	.824	2.6125	2.8629	.037
Cleanliness of Lecture Room	4.3875	4.4143	.760	3.3313	3.5514	.062
Easy to Access Facilities	4.2625	4.3629	.271	3.1063	3.0971	.939

ITEM	IMPORTANCE			SATISFACTION		
	Mean for Males	Mean for Females	P-Value of Difference	Mean for Males	Mean for Females	P-Value of Difference
Content Consistent with Course Outline	4.5313	4.6371	.153	3.6813	3.9057	.034
Easy to Acquire Text Books	4.5000	4.5543	.487	2.7500	2.9743	.065
Up to date Content	4.5688	4.5400	.717	3.0313	3.3629	.004
Delivering on Promises	4.3250	4.1457	.068	2.9500	2.9371	.908
Boarding Accommodation	3.6875	3.3571	.009	2.9688	2.9143	.565
Laboratory Materials	4.4563	4.0257	.000	2.6063	2.7714	.132
Common room	3.8438	3.5686	.017	2.7938	2.7057	.401
Temperature of Lecture Rooms	4.3625	4.2171	.138	2.3125	2.4857	.160
Lighting of Lecture Rooms	4.4188	4.4600	.646	3.3000	3.5114	.086
Photocopying Facilities	4.2625	4.4286	.049	3.1438	3.1771	.793
Printing Facilities	4.3313	4.4686	.099	3.0188	3.1086	.476
Relevance of Content to Chosen Career	4.4688	4.5143	.592	3.5813	3.6914	.328
Qualified Teaching Staff	4.7000	4.7286	.681	3.8250	3.9486	.239
Content Transferrable to Other Courses	4.2938	4.2743	.835	3.6750	3.7086	.732
<b>OVERALL MEAN</b>	<b>4.3107</b>	<b>4.2993</b>		<b>3.1466</b>	<b>3.2337</b>	

#### 4.6 Conclusion

The aim of this chapter was to present the findings of the survey conducted to determine drivers of student satisfaction with the services offered by the Caribbean university. The findings were presented using three research questions which sought to determine students' expectations of the services provided to them, the degree to which students were satisfied with the services provided to them, and the degree to which students were satisfied with the providers of services. In many instances, the findings suggest that students had high expectations of the services provided to them and were mostly dissatisfied rather than satisfied with the services and service providers. All the dimensions surveyed,

and those which emerged from the narratives of students, could be regarded as dimensions of importance to students and by extension, enablers of students' satisfaction at the Caribbean university. The following chapter discusses the findings of the study in relation to the literature reviewed as well as considers how the conceptual framework and methodology employed might have impacted the findings.

## Chapter 5 DISCUSSION

### 5. Introduction

The findings suggest that the drivers of student satisfaction at the Caribbean university were Attitude, Setting, Deliverables, Tangibles, Responsiveness, Reliability, Copying Facilities, Utility, Ergonomics, Security, Credibility, Communication and Value for Money.

The findings also highlighted that students had high expectations of, and displayed high levels of dissatisfaction with, the services and service providers of the university. There were a few instances when the statistical results and narratives suggested that students' expectations were met or surpassed by the university. The following discusses the findings as per research question.

#### 5.1 Research Question 1: What are students' expectations of the services provided by the Caribbean university?

The measurable dimensions used to provide answers to this question were Attitude, Setting, Course Deliverables, Ergonomics, Copying Facilities and Utility. A large percentage of respondents' expectations ranged from most important to moderately important for the services provided by the Caribbean university. The items comprising the measurable dimensions were in the many cases rated as most important.

The item Staff Caters for Students Specific Needs for the Attitude Dimension appeared to be critical to students' satisfaction. The weighted expectations ratings for this item was higher than those for the other items comprising the dimension. Similarly, the item Cleanliness of the Campus Environment for the Setting Dimension, Content Consistent with Course Outline for the Deliverables Dimension, Laboratory Materials for the Tangible Dimension, Lighting of Lecture Room for the Ergonomics Dimension, Qualified Teaching Staff for the Utility Dimension, and Printing Facilities for the Copying Facilities Dimension recorded higher weighted expectations ratings from students than the other items comprising the respective dimensions. The observation is made that of all the items for which students had high expectations that the highest expectation overall could be attributable to the variable Lighting

of Lecture Room followed by Printing Facilities. It could be advanced that generally, students had high expectations of the services provided to them by the Caribbean university and that the high expectations evinced have the potential to affect students' level of satisfaction with the services provided to them by the university.

An extrapolation of the Expectation Disconfirmation Theory suggests that where students' experiences of the services were consistent with their expectations satisfaction occurs. Students whose expectations were higher than their experience of the services provided by the University would be dissatisfied. Where students' experiences of the services exceeded their expectation, they would be delighted with the services provided to them (Hom, 2000; Oliver, 1980; Spreng, et al., 1996). Meeting and exceeding customer expectations has been argued by Parasuraman et al. (1985) as one way in which an organisation could assure good service quality. When one considers the argument of some stakeholders that an increase in tuition and fees is only justifiable where the quality of the services improves, the Caribbean university, might want to ensure that it implements some defined link to its evaluation and management system. Parasuraman et al. (1991) contend that customers view higher prices paid for services as indicative of good services quality but do not regard lower prices as a reason for decreasing service quality.

## **5.2 Research Question 2: How satisfied are students with the services provided by the Caribbean university?**

A Gap Score and an Overall Satisfaction Score was computed to ascertain how satisfied students were with the dimensions "Setting", "Deliverables", "Tangibles", "Ergonomics", "Copying Facilities", and "Utility. Negative Gap Scores were interpreted as evidence of students' dissatisfaction while positive scores suggested that students were delighted with the services provided by the University their expectations having been surpassed. A Gap Score of Zero was interpreted as evidence that the expectations of students were met and hence they were satisfied with the services offered to them. An **OSS** of  $\geq 1$  was used to infer that the students considered the respective dimensions as excellent; between 0 and 1 good; between 0 and  $-1$  fair; less  $\leq -1$  as poor. Themes from the narratives which



mapped on to the respective dimensions were used in conjunction with the statistics derived for the Gap Scores and Overall Satisfaction Scores to determine how satisfied students were with the services provided by the Caribbean university. Each of the dimensions is now discussed in turn.

### **5.2.1 Setting**

Cleanliness of Lecture Room, Layout of Lecture room, Lecture Room Furnishings, and Cleanliness of Lecture Room were the items which comprised the Setting dimension.

The Gap Score for the Setting dimension indicated that students were more dissatisfied rather than satisfied or delighted with the setting in which their educational experiences took place. Narratives of 43 (12.95%) of the students who responded to the open-ended section of the SSS suggested that the dissatisfaction could be related to the: State of the Buildings; Cleanliness of the Environment; Cleanliness of the Facilities; Layout of lecture room; and Lecture room furnishings. The Overall Satisfaction Score indicated that most students were overall dissatisfied with the setting and considered it poor or fair. There were some students whose overall satisfaction appeared to have been met or surpassed as evidenced by the excellent classification scores of the dimension which was  $\geq 1$ . The findings of the study that students were dissatisfied with the state of the buildings, layout of lecture room and lecture room furnishings are inconsistent with Douglas, et al. (2006) but similar to Gruber, et al. (2010) who found that the university buildings and quality of lecture theatres were sources of dissatisfaction to students. Collectively, the findings tend to support the theory of Shostack (1977) and Lovelock (1983) that the setting in which services are delivered influences students' satisfaction.

### **5.2.2 Deliverables**

The Deliverables comprised the items Easy to access facilities, Content Consistent with Course Outline, Easy to Acquire Text Books, Up to date Content and Delivering on promises. The findings indicated that students were mainly dissatisfied with the Deliverables with the highest level of dissatisfaction registered for the ease with which textbooks can be acquired. Of the total students surveyed, 73.2% of the students found it difficult to acquire textbooks. Some students (40.6%) appeared to have been

satisfied with the item Content Consistent with Course Outline while 6.85% indicated that they were delighted. Almost 54% of the students were dissatisfied with the item Content Consistent with Course Outline which suggests that the content delivered to students did not coincide with the content identified in the Course Outline. The **OSS** for the Deliverables was indicative of an overall poor view of the services provided to students.

In class interaction with all students; availability of essential literature; sufficient time for content coverage; appropriate teaching methods; convenience of lecture time and motivating students were determined from the narratives of students as other possible sources which impacted their satisfaction level with the Deliverables. While many of the narratives did not specifically indicate that students were dissatisfied, the general tone and the way in which they were worded was suggestive of some degree of dissatisfaction. Like Douglas, et al. (2006) this study found that the convenience of lecture time and appropriate teaching methods were sources of dissatisfaction for students. Students' dissatisfaction with the time set for lectures could be related to the working students whose employers do not grant them time off to attend classes. While Douglas et al. (2006) found that "textbook value for money" impacted students satisfaction this study revealed that the availability of the requisite texts books affected students' satisfaction level. Inconsistent with Douglas, et al. (2006) findings were findings of this study which revealed that the deliverables related to teaching such as in-class interaction, motivating students, sufficient time for content coverage and consistency of content with course outline, to some degree, impacted students' satisfaction.

### **5.2.3 Tangibles**

Boarding Accommodation, Laboratory Materials and Common Room were the items measuring the Tangibles dimension. The Gap Score for many students indicated that they were dissatisfied with the item Laboratory Materials. Noteworthy is that the expectations of at least 25% of the students were met for all the items measuring the Tangibles. The Overall Satisfaction Scores inform that students believed that overall the services related to the Tangibles provided to them by the university were poor. There were some students however whose **OSS** indicated that the services provided to them were good.

The written narratives of the 53.31% of the students who responded to the open-ended section, conveyed a general sense of dissatisfaction with the Tangibles. Other sources of dissatisfaction for students were variabilities in the services related to Internet Access, Medical Care, Toilet Facilities and Supplies, Sufficiency of Furniture, Library Facilities, Common Room, Laboratories, Sports facilities, Sufficiency of Classrooms, Recreational Facilities, and Cafeteria Facilities, Differently Abled Facilities. The matter of internet connectivity was the most frequently occurring item in the narratives. An exceptional item which featured only once was the item Differently Abled Facilities.

*“I have a special needs friend who say the facilities the university provides for him are not adequate and at times he feels alone when trying to pursue his education. I had also noticed that there are ramps for wheel chairs to enter the library with no ramps to go upstairs where the books actually are”.*

The narrative conveys the sense that the needs of differently abled persons were not adequate and gave the impression that more thought needs to be exercised in the determination of facilities for such students.

#### **5.2.4 Ergonomics**

The Temperature of Lecture Room and Lighting of Lecture Room were the items which comprised the Ergonomics dimension. The Gap Score of students indicated that most students were dissatisfied with the temperature of the lecture room while a little over half were dissatisfied with the lighting of the lecture room. The OSS for the Ergonomics point to an overall level of dissatisfaction for the dimension given most students rated the services provided through this dimension as poor. The narratives of the 12.65% of the students, indicated that in addition to the temperature of the lecture room and lighting of the lecture room, other sources of dissatisfaction were the variabilities in the durability of furniture, the paucity of furniture for left-handed students, furniture which was uncomfortable, and poor ventilation of lecture rooms.

#### **5.2.5 Copying Facilities**

The factors measuring the dimension Copying Facilities were Photocopying Facilities and Printing Facilities. The Gap Score indicated that most students were dissatisfied with the services provided to

them by photocopying and printing facilities. The **OSS** indicated that overall, many students considered the services provided by the copying facilities as poor. Some students while not considering the services to be poor, fair or excellent believed it to be good. Written narratives of 3.01% of the students who responded to the open-ended section suggest that students perceived the price which had to be paid to access copying facilities as exorbitant, that copies provided were faulty, the building housing the facility was always crowded, and that there was inadequate photocopying and printing services available on campus. The implications are that this could have accounted for some of the dissatisfaction revealed by the Gap Score as well as account for a proportion of the overall dissatisfaction of students with the services provide by the copying facilities. The inference is that students were more dissatisfied rather than satisfied with the services provided by the Copying Facilities available at the University.

#### **5.2.6 Utility**

The Utility dimension comprised the factors Relevance of Content to Chosen Career, Qualified Teaching Staff and Content Transferrable to Other Courses. The Gap Scores for the items indicate that an almost equal and great percentage of students were dissatisfied or satisfied with the utility of the services provided to them. The **OSS** for most students indicated that they considered the Utility dimension as fair rather than poor. The inference is that students experienced variability in the services covered by the Utility dimension and that of all the services provided by the Caribbean university, students' satisfaction level was better for the Utility dimension.

#### **5.2.7 Emergent Dimensions of Student Satisfaction**

The written narratives of students surveyed point to Responsiveness, Reliability, Security, Credibility, Communication and Value for Money as six additional dimensions impacting students' satisfaction with the services provided by the Caribbean university. Each dimension is discussed in turn.

##### **5.2.7.1 Responsiveness**

The responsiveness of the university in providing requisite service emerged as a dimension with the potential to impact students' satisfaction at the Caribbean university. Some students 26 (7.83%) who

responded to the open-ended section of the SSS highlighted issues surrounding the timeliness of the commencement of courses; recurrent changes to time tables; timely release of grades; timeliness of commencement of classes; accurate timetabling; and the timely issuance of student identification cards.

#### 5.2.7.2 Reliability

Reliability is the performance in the designated time (Parasuraman, et al., 1985). The most recurrent factors identified from the responses of 12 (3.61%) of the students were related to the activities of courses not being covered in the stipulated time, the interruption of classes, inaccuracy in billing by the University and students not given semester breaks. From the tone and wording of the narratives it is inferred that students were dissatisfied with the Reliability dimension.

#### 5.2.7.3 Security

Security refers to the freedom from danger, risk or doubt (Parasuraman, et al., 1985). A few students 3 (0.90%) expressed concern regarding their physical safety, lack of confidentiality of student data, lack of confidentiality of assessment information, poor lighting on campus, and unauthorised access to the campus. The indications are that the variables present possible sources of dissatisfaction for other students as well. Evidently, the issue identified relating to poor lighting on campus could be hypothesized as an event that could have affected students as well as staff.

#### 5.2.7.4 Credibility

Credibility refers to the trustworthiness, honesty, and believability (Parasuraman, et al., 1985) of the services provided by the Caribbean university. Students 3 (0.90%) responses were grouped under the factors Reputation and Fees. The reputation of the Caribbean university as it relates to accreditation and fees being reflective of the quality of services were concerns which emanated from the narratives provided in the open-ended section of the questionnaire. Given the influential role of “word of mouth” on the prior expectations of customers (Huang, et al., 2012) and subsequent judgements (Bone, 1995), a narrative which stands out as having the potential to negatively affect the credibility of the university is:

*“I personally do not recommend this university to myself again or any member of my household, if the university is not upgraded”.*

While the argument might be proffered that the statement is from a single student, Bone (1995) found that word of mouth influenced short and long-term judgements especially in the face of disconfirmation and when it was communicated by a perceived expert. The student in this instance might very well be considered an expert by students of the Caribbean university. Given the multiplier effect of negative word of mouth on the ability of an organisation to attract, retain and have repeat purchases, then dealing with the source of dissatisfaction could serve to mitigate against the consequences of non-referrals. The phrase, “if the university is not upgraded” in the narrative cited, suggest that negative word of mouth will occur where the perceived source of dissatisfaction is not resolved. Blodgett et al. (1993) found negative word of mouth to be dependent on whether the customer perceived that complaints were dealt with justly. In the context of the study, this could be where the students perceived that the university was not providing them with services consistent with fees paid as inferred from the following narrative.

*“Additionally, fees at the campus is too high for the mediocre work some of the lecturers put out”.*

In an era where universities are being called upon to account for increased spending and tuition fees by stakeholders Liu (2011), the call to have an accredited university by another student presents a possible avenue through which the university can seek to establish accountability and improve the credibility of the institution. The added benefit is that an accredited Caribbean university, or any other higher education institution, could experience an increase in demand for its programmes with the very likely spin-off benefit of improved business performance.

#### 5.2.7.5 Communication

Communication is concerned with keeping customers informed in a language they can understand and listening to them (Parasuraman, et al., 1985). The narratives of 18 (5.42%) of students identified

concerns related to the application and registration process which they regarded as unclear; the inability of the institution to give clear information; the giving of inaccurate information regarding examinations; the absence of an organised and up-to-date website; lack of notice of cancellation of classes; no recognised complaint and redress mechanism; lack of feedback on complaints; unclear instructions for assignments; lack of academic advisement; lack of navigation instructions on how to locate important buildings; incomprehensible mark and grading schemes. Comments typifying the variables tend to suggest some degree of dissatisfaction with the Communication dimension and is consistent with the findings of Lewis and Clacher (2001) that a lack of, or inaccurate communication, leads to dissatisfied customers.

Evidently, an institution which fails to communicate clearly with its students could find itself in a position where it is misunderstood and unable to deliver quality service owing to the lack of clarity of its processes. The inability to deliver promised services efficiently is likely to negatively impact students' satisfaction with the particular service offered by the institution. For example, the following verbatim student comment illustrates a situation involving the lack of clarity regarding information and directions which were given to resolve a difficulty encountered by a student.

*“Communication, Communication, Communication!! Sometimes when one has an inquiry you may go to one department, someone tells you something and sends you to another department. When you go to this department, the information you get there contradicts the initial information”.*

Evidently, providing clear instructions, processes and guidelines could alleviate the degree of frustration and dissatisfaction embodied in the narrative above.

#### **5.2.7.6 Value for Money**

Many students believed that they were not receiving value for money. The general wording of the narratives of 23 (6.93%) suggested that they perceived that the tuition and facilities fees paid to the university were not reflective of the services provided to them.

*“University does not value student’s time, effort and money. We paid for something, we expect our service. I am questioning my attendance at this institution every day, it is no longer about learning, it is now about passing. On a scale of 1-100, I am 2% satisfied”.*

The narrative above raises questions concerning the raison d'être of the Caribbean university and casts doubt on the ability of the institution to equip students with the knowledge that allows them to advance personally and professionally as well as to contribute to national development. It also suggests that the Caribbean university was not giving value for money. In the face of increased tuition fees, the narrative tends to support the view of Liu (2011) that in the face of increased public spending on tuition and fees, higher education institutions will continue to be called into accountability by stakeholders for such expenditures.

The narrative above is suggestive of a very dissatisfied student and resonates with the findings of the study that students were specifically, and overall, dissatisfied with the services provided to them by the Caribbean university for the measurable and emergent dimensions. The inference is that the experiences of students with the services provided to them were below their expectations which lead to some level of dissatisfaction. There were some students whose expectations were met or surpassed by the university on all the dimensions ascertained before the study.

### **5.3 Research Question 3: How satisfied are students with the providers of services at the Caribbean university?**

Students’ satisfaction with the service providers was measured using the Attitude Dimension comprising the items “approachable administrative staff”, “courtesy of administrative staff”, “courtesy of office staff”, “staff caters for student specific needs”, and “helpfulness of office staff”. Attitude is defined as the courtesy, friendliness of staff and approachability of staff (Adapted from Parasuraman et al., 1985).

The findings suggest that many students were mostly dissatisfied rather than satisfied with the attitude of the staff. A few students appear to have been delighted with the service providers’ attitude. The inference is that service providers displayed varying levels of soft skills.



The written narratives of 15.36% of the students pinpointed several characteristics relating to the Providers of Services with which they were dissatisfied. Identified in the written narratives provided by students were the phrases: “more professionalism; hostile and unhelpful service providers; poor service for admissions; library cashier staff unmannerly, attitude of guards, lecturers and library staff attitudes need to be improved; friendlier staff; better staff at loan agency; staff need to be more approachable; practicum lecturers not confidential; lecturers display high level of favouritism”. The narratives support inference made from the quantitative data that students were mainly dissatisfied rather than satisfied or delighted with the service provided to them. Few students had Overall Satisfaction Scores which suggests they perceived the service providers as possessing excellent attitudes. It could be advanced that the variable, “Attitude of Staff”, *ceteris paribus* exerts some pressure on the satisfaction of students. The finding supports Shostack (1977) and Lovestock (1983) theory that customer satisfaction with a service is influenced by the personnel providing it.

#### 5.4 The Aim of the Study

The study aimed to determine drivers of student satisfaction with the services offered at a Caribbean university. The answers to Questions 1, 2 and 3 enabled the identification of the drivers of students’ satisfaction at the Caribbean university. Table 5.1 presents these drivers in no order of importance.

Table 5.1: Drivers of Students' Satisfaction

Drivers	Factors of Students Satisfaction	Interpretation
<b>Attitude</b>	Professionalism Helpfulness Courtesy Approachability Catering for students’ specific needs	The courtesy, friendliness of staff and approachability of staff (Adapted from Parasuraman et al., 1985).
<b>Setting</b>	State of the Buildings Cleanliness of the Environment Cleanliness of the Facilities Layout of lecture room Lecture room furnishings	The environment in which educational experiences take place (Shostack, 1977).

<b>Drivers</b>	<b>Factors of Students Satisfaction</b>	<b>Interpretation</b>
<b>Deliverables</b>	Ease of access to facilities/text books Delivering on promises Up to date content In class interaction with all students Availability of essential literature Sufficient time for content coverage Appropriate teaching methods Convenience of lecture time Motivating students Provision of handouts	The appropriateness of teaching methods, availability of suitable teaching and learning resources, timing of lectures and other items needed for the successful delivery and completion of a course of study (Own).
<b>Tangibles</b>	Physical Facilities Tools Equipment Internet Cafeteria/Cafeteria Recreational facilities Sufficient classrooms Generators to cater for power outages Sufficient Furniture	These include the physical evidence of the service provided to customers (Parasuraman, et al., 1985).
<b>Responsiveness</b>	The timeliness of the commencement of courses Non-recurrent changes to time tables Timely release of grades Timeliness of commencement of classes Accurate timetabling Timely issuance of student identification cards	Readiness to provide Services (Parasuraman, et al., 1985)
<b>Reliability</b>	Courses covered in the stipulated time Non-interruption of classes Accuracy in billing Giving of semester breaks as scheduled	Performance of Service in the Designated time (Parasuraman, et al., 1985).
<b>Copying Facilities</b>	Price of printing Sufficiency of printing and photocopying services	The facilities which are available to offer copying services to students (Own).
<b>Utility</b>	Qualified teaching staff Relevance of content to chosen career Opportunities to achieve best performance Unique course content Fully delivered course content Opportunities for job- related training/practical Ability of lecturers to teach concepts	The capability of teaching staff and applicability of knowledge imparted to career and other disciplines (Own).
<b>Ergonomics</b>	Lighting of Lecture Room Temperature of Lecture Room Durability of furniture Furniture for left-handed students	The design of furniture and method employed in lecture rooms to ensure students comfort and wellbeing during the teaching and

<b>Drivers</b>	<b>Factors of Students Satisfaction</b>	<b>Interpretation</b>
	Comfort of furniture Ventilation of Lecture Room	learning sequence (Adapted from International Ergonomics Association, 2016).
<b>Security</b>	Physical Safety Confidentiality of student data Confidentiality of assessment information Authorised access to campus Lighting on campus	Freedom from danger, risk or doubt (Parasuraman, et al., 1985).
<b>Credibility</b>	Reputation of UG Fees reflective of quality of service	The trustworthiness, honesty, believability (Parasuraman, et al., 1985)
<b>Communication</b>	Clear application and registration process Giving clear information Accurate information regarding examinations Organised and up-to-date website Notice of cancellation of classes Complaint and redress mechanism Feedback on complaints Clear instructions for assignments Academic Advisement Navigation Instructions Understandable mark schemes Understandable grading schemes	Keeping customers informed in a language they can understand and listen to them (Parasuraman, et al., 1985).
<b>Value for Money</b>	Receipt of requisite services paid for Quality of services provided Adequate teaching facilities	The perceived quality of services received from every sum of money spent in tuition and facility fees (Adapted from Web Finance, 2016).

### **5.5 The Conceptual Link between the Caribbean University and Students' Perception of the Service It Offers**

Objective 4 is examined here owing to the significance of the achievement of this objective and its contribution to the ongoing debate on the advisability of conceptualising education as a service. The objective sought to identify the conceptual link between the Caribbean university and students' perception of the service it offers.

Students like proponents perceive education as service. That they regard education as a service is inferred from the importance they ascribed to the dimensions identified in the study and those which emerged as drivers of their satisfaction at higher education. That this service has both tangible and

intangible elements is also clear from the identified dimensions and is consistent with the arguments advanced by Lovelock (1983) that the nature of the service act is such that services at higher education could be characterized as the tangible actions which result in physical effects on students and intangible actions aimed at the mind. Characterising education as a service is, however, inconsistent with the views of Ng and Forbes (2009) who argue that students are partners in the process of assuring quality owing to the uniqueness of their role in the education process. Hence education cannot be regarded as a service. Students of the Caribbean university have however clarified that from their perspective education is a service and that regardless of the duality of their role in the education process, the quality of the services provided to them needs to be improved. Figure 5.1 illustrates the link between the Caribbean university and students' perception of the service it offers.

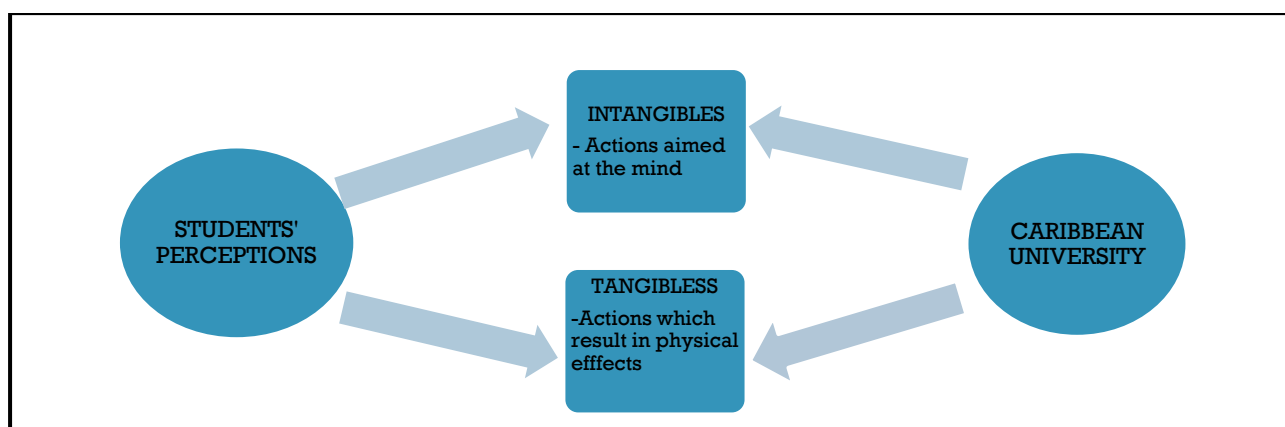


Figure 5.1: Service Bundle at Higher Education

Source: Own developed from the literature

## 5.6 Revisiting the Conceptual Framework

The Conceptual Framework (Figure 1.1) developed from the literature reviewed was founded on the Expectation Disconfirmation Theory, a widely used model (Hom, 2000) which theorises that customers form judgements before the use of a product/service and subsequent use either confirms perceptions resulting in satisfaction or disconfirms perception resulting in dissatisfaction (Hom, 2000; Oliver, 1980; Spreng, et al., 1996). The framework depicts the theorised and empirical relationship between customer satisfaction and improved business performance and proffers the theory that

improving customer satisfaction improves business performance. Given Parasuraman, et al. (1991) assertion that customers expect higher prices to be reflective of higher quality but do not equate lower prices with lower service quality, it could be argued that irrespective of the level of fees, students will want to have the best quality of service provided to them. This brings into question the assertion by Livingston (1993) that improving customer satisfaction helps to create willingness in customers to pay the asking price and questions the theorised relationship between improved student satisfaction, increased revenue and improved business performance. The relationship might not hold even when higher education institutions succeed in meeting and exceeding students' expectation on the dimensions identified as important to them. Students might want to pay less for more. When one considers the history of higher education in the Caribbean country where the study was conducted it is recognised that funding of higher education has travelled a circuitous route from paying to non-paying and then a return to paying. Consequently, there might still exist the perception that education is a free good to which everyone is entitled. Higher Education Institutions wanting to increase revenue might have to settle for the option of increasing demand (Livingston, 1993) rather than increasing prices given that there are no guarantees that improving student satisfaction will result in acceptance of, or lowering of resistance to, increased prices. Admittedly, in addition to the perceived lack of quality in the services provided by the university, there might be other variables not included in the framework that could have given rise in the first instance to students' resistance to the proposed increases in fees. The model, however, provided a good base for the study and was consistent with the empirical findings of (Anderson, et al., 1994; Hallowell, 1996; Kamakura, et al., 2002) that improving customer satisfaction results in improved business performance. The variables in the model enabled the researcher to use the equations developed by (Elliot & Shin, 2002) to provide answers to the three research questions posed in the study and to achieve the aim and objectives of the study.

## **5.7 Conclusion**

Three research questions were posed in the study to determine the drivers of student satisfaction at a Caribbean university and to achieve the four objectives of the study. Research Question 1 sought to uncover the level of students' expectations of the services provided by the Caribbean university. The study revealed that students had high expectations of the services provided. Hom (2000), Oliver (1980) and Spreng et al. (1996) theorised that where expectations exceeded the actual experience of the services dissatisfaction would occur and where the actual experiences are more than or equal to prior expectations satisfaction and delight would occur respectively. This theory is consistent with the findings of Research Questions 2 and 3. Research Question 2 sought to uncover how satisfied students were with the services provided by the Caribbean. It was established that many students were dissatisfied with the services provided to them but that there were a few students whose expectations were met or surpassed for all the service dimensions. Research Question 3 sought to uncover students' satisfaction level with the providers of services. It was revealed that students were mainly dissatisfied rather than satisfied with the providers of services. This is consistent with the theory of Shostack (1977) and Lovestock (1983) that satisfaction with a service is influenced by the personnel providing it.

The aim of the study was to determine drivers of student satisfaction with the services offered by the Caribbean university. Possible drivers of students satisfaction determined from the findings are Attitude, Setting, Deliverables, Tangibles, Responsiveness, Reliability, Copying Facilities, Utility, Ergonomics, Security, Credibility, Communication and Value for Money.

The following chapter presents the summary of findings, implications, limitations, conclusion, recommendations and directions for future research.

## Chapter 6 CONCLUSION AND RECOMMENDATIONS

### 6. Introduction

In 2014, the Caribbean university found itself in a position where the necessary financial resources to meet their obligations were inadequate. It was determined that the time had arrived for the tuition fees paid by students to be increased since these had not moved from the minimum cost of US\$1,000 (127,000 dollars of the country in which the Caribbean university is located) instituted in 1994 when paying for higher education was reintroduced. Additional, justification for the proposed rise in tuition and fees was that the prices charged had not moved in concert with the depreciation of the currency used by the Caribbean country in which the university is located. The prices charged for tuition were also well below what similar programmes cost internationally. The announcement of the planned rise in tuition fees was met with mixed reactions and gave rise to debates on the advisability of doing so. There were calls from stakeholders not to increase the tuition and fees since this might prohibit access to higher education. The literature informed that correlations exist between customer satisfaction and the revenue earning ability of institutions (Hallowell, 1996; Heskett, et al., 2008; Kamakura, et al., 2002) and that resistance to price increases could be overcome by improving customer satisfaction (Livingston, 1993).

Consequently, the study aimed to determine drivers of student satisfaction with the services offered by the Caribbean university. The study identified four objectives through which the aim of the study could be achieved. The first objective - to determine the level of customer (student) satisfaction with the services offered by a Caribbean university is rooted in theory in the literature which specifies that customers form judgements before using a product or service. The actual use of the product or service leads to confirmation (satisfaction) or disconfirmation (dissatisfaction). Experiences which exceed prior judgements usually lead to customers who are delighted with the product or services offered. The second objective - to identify the factors that influence customer (student) satisfaction level with the

services offered by the Caribbean university is related to the empirical work undertaken through the methods and methodology outlined in Chapter 3. The third objective - to provide management of the Caribbean university with a means through which student satisfaction at the institution might be improved is associated with the intended practical use of the findings. The fourth objective - to identify the conceptual link between the Caribbean university and students' perception of the service it offers is linked to theory and designed to reveal the meaning of services offered at higher education as perceived by the students. The achievement of the objectives was premised on the provision of answers to three research questions which are summarised in Section 6.2. Section 6.3 elucidates the implications of the study, Section 6.4 identifies the contribution of the study to theory, Section 6.5 highlights the contribution of the findings to practice and Section 6.6 gives directions for future research. The conclusions formed are set out in Section 6.7, and the recommendations are presented in Section 6.8.

## **6.2 Summary of Findings**

Theory (Hom, 2000; Oliver, 1980; Spreng, et al., 1996) and empirical studies connect customer satisfaction with the performance of a business (Anderson, et al., 1994; Athiyaman, 1997; Hallowell, 1996; Kamakura, et al., 2002). In an era where the Caribbean university is financially challenged, and proposals to the now increased tuition fees met with mixed reactions and raised questions concerning the quality of the services provided, the study aimed to uncover the enablers of customer satisfaction at the university. The Expectation Disconfirmation Theory (Oliver, 1980) was used to model the study and the Weighted Importance Score - the relative importance of an item expressed as a percentage of the sum (Elliot & Shin, 2002) to determine the expectations of the customers (students) of the services provided by the Caribbean university. A Gap Score and an Overall Satisfaction Score (Elliot & Shin, 2002) were used to determine the satisfaction of the customers (students) with the services and service providers of the Caribbean university. To determine the achievement of the objectives of the study each of the three research questions is discussed in turn.



### **6.2.1 Research Question 1: What are students' expectations of the services provided by the Caribbean university?**

The measurable dimensions used to provide answers to this question were Attitude, Setting, Course Deliverables, Tangibles, Ergonomics, Copying Facilities and Utility. A large percentage of respondents' expectations ranged from most important to moderately important for the services offered by the Caribbean university indicating that their expectations of the dimensions differed. The items comprising the measurable dimensions were in all the cases rated as most important.

It could be advanced that generally, students had high expectations of the services provided to them by the Caribbean university and the high expectations have the potential to affect students' level of satisfaction with the services provided by the university.

### **6.2.2 Research Question 2: How satisfied are students with the services provided by the Caribbean university?**

A Gap Score and an Overall Satisfaction Score was computed to ascertain how satisfied students were with the dimensions "Setting", "Deliverables", "Tangibles", "Ergonomics", "Copying Facilities", and "Utility. Negative Gap Scores were interpreted as evidence of students' dissatisfaction while positive scores suggested that students were delighted with the services provided by the University. Their expectations having been surpassed. A Gap Score of Zero was interpreted as evidence that the expectations of students were met and hence they were satisfied with the services offered to them. An OSS of  $\geq 1$  was used to infer that the students considered the respective dimensions as excellent; between 0 and 1 good; between 0 and  $-1$  fair; less  $\leq -1$  as poor. Themes from the narratives which mapped on to the respective dimensions were used in conjunction with the statistics derived for the Gap Scores and Overall Satisfaction Scores to determine how satisfied students were with the services provided by the Caribbean university. Each of the dimensions is now discussed in turn.

#### ***Setting***

Cleanliness of Lecture Room, Layout of Lecture room, Lecture Room Furnishings, and Cleanliness of Lecture Room were the items which comprised the Setting dimension.

The Gap Score for the Setting dimension indicated that students were more dissatisfied rather than satisfied or delighted with the setting in which their educational experiences took place. Narratives of 43 (12.95%) of the students who responded to the open-ended section of the **SSS** suggested that the dissatisfaction could be related to the: State of the Buildings; Cleanliness of the Environment, Cleanliness of the Facilities, Layout of lecture room, and Lecture room furnishings. The Overall Satisfaction Score indicated that most students were overall dissatisfied with the setting and considered it poor or fair. There were a few students whose overall satisfaction appeared to have been met or surpassed as determined by the excellent classification scores of the dimension which was  $\geq 1$ .

### ***Deliverables***

The Deliverables comprised the items Easy to access facilities, Content Consistent with Course Outline, Easy to Acquire Text Books, Up to date Content and Delivering on promises. The findings indicated that students were mainly dissatisfied with the Deliverables with the highest level of dissatisfaction registered for the ease with which text books can be acquired. Of the total students surveyed, 73.2% of the students found it difficult to acquire text books. Some students (40.6%) appeared to have been satisfied with the item Content Consistent with Course Outline while 6.85% indicated that they were delighted. Approximately 54% of the students were dissatisfied with the item Content Consistent with Course Outline which suggests that students experienced some degree of inconsistency between the content identified in the Course Outline and what was taught. The **OSS** for the Deliverables was indicative of an overall poor view of the services provided to students.

Narratives of students pinpointed other items related to the Deliverable such as In Class Interaction with all Students; Availability of Essential Literature; Sufficient Time for Content Coverage; Appropriate Teaching Methods; Convenience of Lecture Time and Motivating Students as areas of services needing attention. While the narratives did not specifically indicate that students were dissatisfied the general tone and the way in which they were worded was suggestive of some degree of dissatisfaction.

### ***Tangibles***

Boarding Accommodation, Laboratory Materials and Common Room were the items measuring the Tangibles dimension. The Gap Score for many students appeared dissatisfied with the item Laboratory Materials. Noteworthy is that the expectations of a minority of students (25%) were met for all the items measuring the Tangibles. The Overall Satisfaction Scores inform that students believed that overall the services provided to them by the university through the Tangibles were poor. There were students however whose **OSS** indicated that the services provided to them were good.

The written narratives of the 53.31% of the students who responded to the open-ended section, conveyed a general sense of dissatisfaction with the Tangibles. Other sources of dissatisfaction for students were variabilities in the services related to Internet Access, Medical Care, Toilet Facilities and Supplies, Sufficiency of Furniture, Library Facilities, Common Room, Laboratories, Sports facilities, Sufficiency of Classrooms, Recreational Facilities, and Cafeteria Facilities, Differently Abled Facilities. The matter of internet connectivity was the most frequently occurring item in the narratives. An exceptional item which featured only once was the item Differently Abled Facilities, the narrative of which is noteworthy and identified below because of the connotations and implications of the finding.

*“I have a special needs friend who say the facilities the university provides for him are not adequate and at times he feels alone when trying to pursue his education. I had also noticed that there are ramps for wheel chairs to enter the library no ramps to go upstairs where the books actually are”.*

### ***Ergonomics***

The Temperature of Lecture Room and Lighting of Lecture Room were the items which comprised the Ergonomics dimension. The Gap Score of students indicated that most students were dissatisfied with the temperature of the lecture room while a little over half were dissatisfied with the lighting of the lecture room. The **OSS** for the Ergonomics point to an overall level of dissatisfaction for the dimension given most students rated the services provided through this dimension as poor. The narratives of

12.65% of the students, indicated that in addition to the temperature and lighting of the lecture room, other sources of dissatisfaction were the variabilities in the durability of furniture, the scarcity of furniture for left-handed students, furniture which was uncomfortable, and poor ventilation of lecture rooms.

### ***Copying Facilities***

The factors measuring the dimension Copying Facilities were Photocopying Facilities and Printing Facilities. The Gap Score indicated that most students were dissatisfied with the services provided to them by photocopying and printing facilities. The **OSS** indicated that overall, most students considered the services provided by the copying facilities as poor. Some students believed the services provided by the copying facilities were good. Written narratives of 3.01% of the students who responded to the open-ended section suggest that students perceived the price which had to be paid to access copying facilities as exorbitant, that copies provided were faulty, the building housing the facility was always crowded, and that there were inadequate photocopying and printing services available on campus. The implications are that this could have accounted for some the dissatisfaction revealed by the Gap Score as well as account for a proportion of the overall dissatisfaction of students with the services provided by the copying facilities. The inference is that students were more dissatisfied rather than satisfied with the services provided by the Copying Facilities available at the University.

### ***Utility***

The Utility dimension comprised the factors Relevance of Content to Chosen Career, Qualified Teaching Staff and Content Transferrable to Other Courses. The Gap Scores for the items indicate that an almost equal and great percentage of students were dissatisfied or satisfied with the utility of the services provided to them. The **OSS** for most students indicated that they considered the Utility dimension as fair rather than poor. The inference is that students experienced variability in the services covered by the Utility dimension and that of all the services provided by the Caribbean university, students' satisfaction level was better for the Utility dimension.

### **6.2.2.1 Emergent Dimensions of Student Satisfaction**

The written narratives of students surveyed point to Responsiveness, Reliability, Security, Credibility, Communication and Value for Money as six additional dimensions impacting students' satisfaction with the services provided by the Caribbean university. Each dimension is discussed in turn.

#### ***Responsiveness***

The responsiveness of the university in providing requisite service emerged as a dimension with the potential to impact students' satisfaction at the Caribbean university. Pinpointed were issues surrounding the timeliness of the commencement of courses; non-recurrent changes to time tables; timely release of grades; timeliness of commencement of classes; accurate timetabling; and the timely issuance of student identification cards.

#### ***Reliability***

Reliability is the performance in the designated time (Parasuraman, et al., 1985). The most recurrent factors identified from the narratives of the students were related to the activities of courses not being covered in the stipulated time, the interruption of classes, and inaccuracy in billing by the Caribbean university and students not given semester breaks. The indications are that students were dissatisfied with the Reliability dimension.

#### ***Security***

Security refers to the freedom from danger, risk or doubt (Parasuraman, et al., 1985). A few students expressed concern regarding their physical safety, lack of confidentiality of student data, lack of confidentiality of assessment information, inadequate lighting on campus, and unauthorised persons gaining access to the campus. The indications are that the variables present possible sources of dissatisfaction for other students as well. The issue identified relating to poor lighting on campus could be hypothesised as an event that could have affected students as well as staff.

### ***Credibility***

Credibility refers to the trustworthiness, honesty, and believability (Parasuraman, et al., 1985) of the services provided by the Caribbean university. Students responses were grouped under the factors Reputation and Fees. The reputation of the Caribbean university as it relates to accreditation and fees being reflective of the quality of services were concerns which emanated from the narratives provided in the open-ended section of the questionnaire. Students' satisfaction appears to have been negatively affected by the Credibility Dimension.

### ***Communication***

Communication is concerned with keeping customers informed in a language they can understand and listen to them (Parasuraman, et al., 1985). Students identified concerns related to the application and registration process which they regarded as unclear; the inability of the institution to give clear information; the giving of inaccurate information regarding examinations; the absence of an organised and up-to-date website; lack of notice of cancellation of classes; no recognised complaint and redress mechanism; lack of feedback on complaints; unclear instructions for assignments; lack of academic advisement; lack of navigation instructions on how to locate important buildings; incomprehensible mark and grading schemes. Comments typifying the variables tend to suggest some degree of dissatisfaction with the Communication dimension.

### ***Value for Money***

Many students believed that they were not receiving value for money. Narratives suggested that they perceived that the tuition fees and facilities fees were not reflective of the services the university was providing.

*“University does not value student’s time, effort and money. We paid for something, we expect our service. I am questioning my attendance at this institution every day, it is no longer about learning, it is now about passing. On a scale of 1-100, I am 2% satisfied”.*

The comment above is suggestive of a very dissatisfied student and echoes the findings that the majority of students were dissatisfied with the measurable dimensions “Setting”, “Deliverables”, “Tangibles”, “Ergonomics”, “Copying Facilities”, “Utility and emerging dimensions “Responsiveness”, “Reliability”, “Security”, “Credibility”, “Communication” and “Value for Money”, that students were specifically, and overall, dissatisfied with the services provided to them by the Caribbean university which has not lived up to their expectations of the services that should be provided to them. There were some students whose expectations were met or surpassed by the university for the dimensions ascertained prior to the study.

### **6.2.3 Research Question 3: How satisfied are students with the providers of services at the Caribbean university?**

Satisfaction with the providers of service was measured using the dimension Attitude which comprised the factors “helpfulness of office staff”, “courtesy of administrative staff”, “approachable administrative staff”, “staff caters for student specific needs”, and “courtesy of office staff”. The satisfaction level was interpreted using the Gap Score where a positive score is interpreted as the university delighting students on the item in question; a negative score as dissatisfaction; and a score of zero as satisfaction. An OSS of  $\geq 1$  is assessed as excellent; between 0 and 1 as good; between 0 and  $-1$  fair; less  $\leq -1$  as poor (Elliot & Shin, 2002).

The statistics suggested that many students were mostly dissatisfied rather than satisfied with the attitude of the staff. A few students appeared to have been delighted with the service providers’ attitude. The analysis of the Pareto Charts pinpointed the classifications of poor and fair as the focal point of interpretation of students’ overall satisfaction with the service providers. Very few students OSS classifications indicated that they considered the attitude of the service providers as good or excellent.

The written narratives of the students pinpointed many characteristics relating to the Providers of Services. Identified in the written narratives provided by students were the phrases: more professionalism; hostile and unhelpful service providers; poor service for admissions; library cashier

staff unmannerly, attitude of guards, lecturers and library staff attitudes need to be improved; friendlier staff; better staff at loan agency; staff need to be more approachable; practicum lecturers not confidential; lecturers display high level of favouritism. The variables are also suggestive that students possessed some measure of dissatisfaction with the attitude of the service providers.

### **6.3 Achievement of Aim and Objectives**

As identified in the introductory chapter, the study had an overarching aim and four objectives. The achievement of the aim and objectives of the study relative to the answers derived from research questions are discussed here.

#### **6.3.1 Objectives of the Study**

Objective 1 sought to determine the level of customer (student) satisfaction with the services offered by the Caribbean university. The answer provided by Research question 2 indicated that students were mainly dissatisfied with the services provided by the university and there were very few instances of students being satisfied or delighted with the services provided to them. Overall, the services provided to students could be rated as poor followed by fair in many instances. Students' overall satisfaction with service providers was slightly better than for the services, with students considering the services providers' attitude fairer than poor. There was still a general level of dissatisfaction regarding the attitude of the service providers.

Objective 2 sought to identify the factors that influence customer (student) satisfaction level with the services offered by the Caribbean university. In answering Research Questions 2 and 3 a number of possible factors of students' satisfaction were unearthed and are presented in the second column in Table 5.1. Objective 3 sought to provide management of the Caribbean university with a means through which the business performance at the institution might be improved. The study found that many students were more dissatisfied rather than satisfied or delighted with the services offered by the Caribbean university and overall ranked the services more often as poor or fair rather than good or excellent. Given this finding, Figure 4.8 which illustrates students' importance ratings suggests the



possible order or phases (four) in which the university could commence improvement efforts. Phase 1: Lighting of Lecture Rooms, Printing Facilities, Copying Facilities and Temperature of Lecture Room. Phase 2: Laboratory Materials, Qualified Teaching Staff, Relevance of Content to Chosen Career, Common Room and Content Transferrable to Other Courses, and Boarding and Accommodation. Phase 3: Cleanliness of Campus Environment, Cleanliness of Lecture Room, Lecture Room Furnishing and Layout of Lecture Room. Phase 4: Content Consistent with Course Outline, Up to date Content, Easy to Acquire Text Book, Courtesy of Administrative Staff, Approachable Administrative Staff, Staff Caters for Students' Specific Needs, Helpfulness of Office Staff, Courtesy of Office Staff, Easy to Access Facilities and Delivering on Promises.

Objective 4 focussed on identifying the conceptual link between the Caribbean university and students' perception of the service it offers. Students of the Caribbean university conceptualise the services offered at higher education as having cognitive and physical effects. From the drivers of students satisfaction identified in Table 5.1 and the importance ascribed to the concomitant factors in Figure 4.8, it is evident that services at higher education are perceived by students as having tangible and intangible elements which range from the setting in which their education experience take place to receiving value for money.

## **6.4 Implications of Study**

The study has significance for the academic community engaged in ascertaining student satisfaction at higher education. It also has significance for the administration of the Caribbean university who could use the findings to inform practice. The contribution of the study to theory and directions for future research as well as contribution to practice are discussed in turn here.

### **6.4.1 Contribution to Theory and Directions for Future Research**

The inability of the Caribbean university to garner sufficient resources to honour its financial obligations when they became due gave rise to proposals to increase tuition and fees which evinced

mixed responses from stakeholders and saw declarations from students that service quality at the university should improve to justify the increases. Theory informed that a focus on the dimensions of importance to the customer results in a successful business. The study made use of the Expectation Disconfirmation Model as the basis upon which to model the study and employed the equations developed by (Elliot & Shin, 2002) to determine students' expectation, satisfaction and overall satisfaction with the services provided by the Caribbean university. Future studies, of a longitudinal nature, into the students' satisfaction at the Caribbean university, could employ relational tests such as correlation, multiple regression and factor analysis to ascertain whether a relationship exists between students' satisfaction and improved business performance of the university.

A comment made by one student concerning the inadequacy of the provisions made for differently abled students by the university signal the need for research to be conducted to determine the kind of resources and facilities which could enable the university to provide for the needs of such students. Research could also be done to determine whether the satisfaction level of students at the two campuses of the Caribbean university differ or are the same.

A strength of the study was that it could successfully leverage the Marketing concept of customer satisfaction on students and use the equations of Elliot and Shin (2002) to obtain measures of students' expectation and satisfaction with the services provided by the Caribbean university. Research could be conducted to determine the expectations and satisfaction level of distance learning students, and differently abled students with the services provided by the university since these categories of students were not considered in the study.

Another strength of the study was that it could determine a battery of drivers (Table 5.1) and concomitant factors of student satisfaction (Figure 4.8) at higher education for a population not previously studied in the context of this research. The findings of the study support the Student as Customer Concept employed in the study and suggest that regarding students as the customers of

higher education enables the application of marketing techniques in assessing their levels of satisfaction and unearthing dimensions of importance to them. The findings also suggest that the Expectation Disconfirmation Theory is equally applicable to institutions of higher education and that the students of such institutions, like the customers of other service industries, have expectations of services provided to them and subsequent experience of the services results in a state of satisfaction, dissatisfaction or delight.

#### **6.4.2 Contribution to Practice**

The emergent theme, Value for Money, appears to be a key and an overarching Dimension to be considered in the assessment of students' satisfaction with the services provided by the Caribbean university. The implications are that the university if it is ever going to be able to sustain itself will have to provide the kind and quality of services valued by its key stakeholders – the students. Alleviating the general level of students' dissatisfaction with the services could see the university overcoming the resistance to increases in tuition fees and thereby being able to reap the theorised associated benefits of improved business performance. However, given the history of tuition fee payment at higher education in country of the Caribbean university, there might still be the belief that education is a public good to which everyone is entitled. As such irrespective of improvements in the quality of services provided, students might not actually be motivated to pay the asking price for their education. Additionally, when one considers that many of the factors uncovered as sources of dissatisfaction to students could be linked to the environment in which their educational experiences took place, it is quite likely, if one embraces the finality of Herzberg, et al. (2017) view, that improvements in, or the removal of the source(s) of their dissatisfaction might not result in a change in their behaviour regarding the payment of increased fees and tuition. Admittedly, the resistance of students to pay more for their education could be a function of their economic status, the perceived lack of quality in the services provided to them or some other variable not included in the study. Consequently, in addition to improving the dimensions of importance to students, the university might

want to consider lobbying the state to have the out of pocket expense – miscellaneous fees – payable directly by students, included as a component of the students' loan.

The study was able to identify the gaps in the services provided by the Caribbean university through the determination of Gap Scores, Weighted Expectation Scores and Overall Satisfaction Scores, which inform of the degree to which students were dissatisfied or satisfied. The size of the relative weighted importance (expectation) scores provides the management of the university with a guide as to the areas of services upon which to first focus improvements efforts (Figure 4.8).

Another emergent theme, Credibility, suggests that the university should actively seek the accreditation of its programmes. An aspect of accreditation is that the university would have to ensure that the requisite resources and facilities are in place for it to deliver on its mandate. The criteria for accreditation would undoubtedly cause the university to correct the many sources of dissatisfaction with its services found in this study.

The study also presents the administration of the university with two authenticated Student Satisfaction Surveys of 24 and 86 items respectively, through which the university could measure and track students' satisfaction with the services provided to students. Having satisfaction indices is another criterion which should be met by a university seeking accreditation.

The unearthing of a comment by a student outlining the challenges of a differently abled student signals the necessity for the university to focus attention on ascertaining the requirements needed to allow the university to provide the requisite facilities for such students. The development and implementation of a policy, which guides how the university treats differently abled students, is essential if the university is to fulfil its mandate to provide education to all.

## **6.5 Limitations of the Study**

The type of statistical tests conducted and the non-inclusion of other categories of students in the research are the identifiable limitations of the study.

The Conceptual Framework for the study (Figure 1.1) posited the theorised and empirical relationship between students' satisfaction and improved business performance. The study did not set out to conduct any tests to determine whether a relationship existed between students' satisfaction and the improved business performance of the Caribbean university hence no such claims could be made by the researcher. Additionally, the study did not consider the students enrolled on the Distance Education Programmes of the Caribbean university nor differently-abled students nor attempt to segment the sample by campuses, to determine whether there existed between them differences in the satisfaction level of the students since this was not an objective of the study.

## **6.6 Conclusion**

The paying of tuition fees by students of the Caribbean university is not new. From its establishment in 1963, students were required to pay tuition fees until 1974 when it was abolished owing to the pursuit of cooperative socialism by the government of the day. In 1994, the payment of tuition was re-introduced by the government at university level while other levels of education continued to receive the support of the State. There was no intention to increase tuition until June 2014 when it was recognised by the administration of the university that tuition and fees need to increase to enable the university to meet its financial obligations. Proposals to this effect were met with mixed reactions. Opposition to the proposals surrounded the belief that persons will be denied an education, which is a natural right, owing to economic circumstances. The reaction of students was that the quality of services provided to them should improve as well. Consequently, while the study was able to identify thirteen drivers of students' satisfaction with the services offered by the Caribbean university future studies should be conducted at a time when the political environment of the university is calmer to ascertain whether the findings of the study hold. The study was able to determine that students had high expectations regarding the services provided to them. In most of the cases, students were not happy at all with the quality of the services provided by the university nor the attitude of the service providers. However, there were instances where students were delighted with some services as well as

the attitude of the service providers. Noteworthy is that students of the Caribbean university conceptualise the institution as a service entity which suggest that the leveraging of the marketing concept of customer satisfaction on them was apposite. One might be inclined to ask what is the university expected to do with the information? Without thinking the response might be, “Improve it!” Herzberg, et al. (2017) Two Factor Theory suggests that improvements in the dimensions linked to the environment might only result in the removal of the sources of dissatisfaction for students and not necessarily improve their satisfaction. It could be that students satisfaction was more related to their perception of value of their education in enabling them to achieve their desired goal. Additionally, improving the quality of services might not be as easy to do as natural instincts dictate since, any improvements in the services will require some amount of financial investment. In the case of the university this could pose a challenge since it was the paucity of resources in the first place that lead to the proposals to increase fees which students believed should not occur unless the university provides guarantees that it would simultaneously improve the quality of the services provided to them. How the university is going to garner the resources to improve the quality of services identified as drivers of students’ satisfaction, is a matter for the university’s administration to decide or another study. What type of financing and in which combinations, is also for the administration to determine and could be the genesis of further work. Consequently, while theory and empirical evidence inform that a customer focussed strategy leads to improved business performance, without the necessary resources immediately on hand, an institution might very well find itself with information that it is unable to leverage to its advantage in the short run. In the long run, it is quite likely that the higher education institutions, which can garner sufficient resources to provide the kind and quality of services required by customers (students), could see improvements in the satisfaction of customers and, *ceteris paribus*, lead to willingness to pay for services and ultimately see the kind of returns that positively impact business performance.

## **6.7 Recommendations for Higher Education and Practice**

The following are the recommendations for Higher Education Institutions and for Practice.

### **6.7.1 Higher Education**

Higher Education Institutions should:

- embrace the student as customer concept and have employees inculcate a culture of providing excellent service (tangible, intangible) and displaying outstanding interpersonal skills so valued by students,
- use marketing techniques to understand the needs of their customers and use the information to develop or stream line policies, processes and programmes to meet these needs,
- engage in continuous assessment to enable the institution to determine the extent to which it is meeting, not meeting or exceeding customers expectations on quality criteria of importance to them. Continuous assessment will allow HEIs to identify deficiencies in their service bundle and take corrective action before they become sources of dissatisfaction. Where the theory of customer satisfaction holds *ceteris paribus*, this could promote constructive referrals and acceptance of the fee structure thereby positively impacting business performance.
- regard service product bundle at higher education as those relating to the tangible, intangible and interpersonal service elements,

### **6.7.2 Practice**

it is recommended that the Administration of the Caribbean university should:

- develop a quality policy which indicates clearly the quality objectives, standards and duties of the departments/units/faculties/schools/institutes responsible for ensuring quality,
- establish a defined quality assurance system which is linked to its management system and use this to drive quality standards throughout the institution,
- establish a quality assurance unit with responsibility for ensuring that the service bundle of the university are at the desired standard and fit for the purposes intended,

- use the ranked importance ratings of the study to spring board phased improvement efforts on the dimensions of importance to students,
- use either of the two validated Student Satisfaction Surveys developed by the researcher to derive base indices of students' satisfaction,
- compare the base satisfaction indices derived with subsequent satisfaction indices to continually track the satisfaction level of students. Comparing base indices to subsequent indices will allow the university to ascertain whether improvement initiatives are positively impacting students' satisfaction,
- develop a policy which articulates how the university intends to treat differently abled students,
- survey to ascertain the needs of differently abled students,
- develop and implement plans to acquire the resources necessary to bridge the gap in the university service bundle for all students inclusive of the differently abled,
- conduct training sessions for all staff to enable them to display the softer skills expected of a university which places the needs of its customers (students) at the center of its operation,
- conduct staff development sessions for lecturers to enable them to acquire the pedagogy to become more effective lecturers,
- actively seek to have the university and its programmes accredited since students' level of satisfaction could be related to the perceived value of their education, the credibility of the programmes they are pursuing and its fitness for purpose,
- conduct research to ascertain whether the reluctance of students to pay increased tuition and fees is a function of students' economic status, intrinsic or extrinsic motivations or some other variable.



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## APPENDIX I: LETTER SEEKING STUDENTS PERMISSION TO CONDUCT RESEARCH

November 2, 2015

Dear Student:

I am currently enrolled as a student at the Edinburgh Napier University and in partial fulfilment for the award of Doctor of Business Administration am conducting a study "Improving the Business Performance of a Caribbean university using a Customer Focussed Strategy".

Your assistance is solicited in completing the attached "Student Satisfaction Survey". The survey requires that you rate a series of items intended to measure your level of satisfaction with the services offered by the Caribbean university and to provide a bit of biographical data. A section at the end offers you the opportunity to provide any additional information you might want to pinpoint regarding the services of the university. It should only take about 10 to 15 minutes of your time to complete.

I would like to assure you that the information given will be anonymous and used for academic purposes. Every effort will be made by me to safeguard your rights as a participant in the study. It is expected that the information obtained, while satisfying the intent cited herein, will be beneficial to the University as it seeks to enhance the services provided to you. It is also projected that a publication will result from the study.

Student, your participation is purely voluntary, and you are free not to participate if that is your desire. Feel free to contact me by email: jackiemurray\_16@yahoo.com or by mobile phone: 619-2107 for any clarification you might need.

Thank you for taking the time to complete the questionnaire.

Yours sincerely,



Jacqueline Ann Murray

DBA Student - Edinburgh Napier University

## APPENDIX II: STUDENT SATISFACTION SURVEY

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### SECTION I

This section requires you to tell me a bit about yourself.

1) What is your sex?	Circle ONE (1) letter
Male	a
Female	b

2) Which category below includes your age?	Circle ONE (1) letter
16-21	a
22-27	b
28-33	c
34-39	d
40-45	e
46 or older	f

3) At which campus are you pursuing your programme of study?	Circle ONE (1) letter
Campus I	a
Campus II	b

4) In which Faculty/School/Division does your programme of study fall?	Circle ONE (1) letter
Agriculture and Forestry	a
Earth and Environmental Sciences	b
Education and Humanities	c
Health Sciences	d
Natural Sciences	e
Social Sciences	f
Technology	g



The items in Section II require you to give your level of satisfaction and importance on a scale of 1 to 5.

SATISFACTION	SCALE	IMPORTANCE	SCALE
Very Dissatisfied	<b>1</b>	Not Important at All	<b>1</b>
Dissatisfied	<b>2</b>	Low Importance	<b>2</b>
Unsure	<b>3</b>	Neutral	<b>3</b>
Satisfied	<b>4</b>	Moderately Important	<b>4</b>
Very Satisfied	<b>5</b>	Most Important	<b>5</b>

The following illustrates how to use the rating scales above to indicate your level of satisfaction with, and importance of, the items measuring the variables of interest. For example, there might be certain aspects of a service offered at the University that a student might be “Very Satisfied” with but is “Not At All Important” or is “Dissatisfied” with but is of “Low Importance”. The rating given by the student for the items “toilet facilities” and “stimulating presentations” could be:

Please indicate your level of satisfaction with and importance of each item (circle the corresponding ratings).	Very Dissatisfied					Very Satisfied					Not Important At All					Most Important				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
a. Toilet Facilities	1	2	3	4	⑤	①	2	3	4	5										
b. Stimulating presentations	1	②	3	4	5	1	②	3	4	5										

## SECTION II

This section requires you to rate the services and service providers of the university.

Please indicate your level of satisfaction with and importance of each item (circle the corresponding ratings).	Very Dissatisfied				Very Satisfied	Not Important At All				Most Important
	1	2	3	4	5	1	2	3	4	5
a. Approachable administrative staff	1	2	3	4	5	1	2	3	4	5
b. Courtesy of administrative staff	1	2	3	4	5	1	2	3	4	5
c. Courtesy of office staff	1	2	3	4	5	1	2	3	4	5
d. Staff caters for students' specific needs	1	2	3	4	5	1	2	3	4	5
e. Helpfulness of office staff	1	2	3	4	5	1	2	3	4	5
f. Cleanliness of the campus environment	1	2	3	4	5	1	2	3	4	5
g. Layout of lecture rooms	1	2	3	4	5	1	2	3	4	5
h. Lecture room furnishings	1	2	3	4	5	1	2	3	4	5
i. Cleanliness of lecture rooms	1	2	3	4	5	1	2	3	4	5
j. Easy to access facilities	1	2	3	4	5	1	2	3	4	5
k. Content consistent with course outline	1	2	3	4	5	1	2	3	4	5
l. Easy to acquire text books	1	2	3	4	5	1	2	3	4	5
m. Up to date content	1	2	3	4	5	1	2	3	4	5

Please indicate your level of satisfaction with and importance of each item (circle the corresponding ratings).	Very Dissatisfied				Very Satisfied				Not Important At All				Most Important			
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
n. Delivering on Promises	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
o. Boarding Accommodation	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
p. Laboratory materials	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
q. Common room	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
r. Temperature of lecture rooms	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
s. Lighting of lecture rooms	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
t. Photocopying facilities	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
u. Printing facilities	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
v. Relevancy of content to chosen career	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
w. Qualified teaching staff	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
x. Content transferrable to other courses	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	

