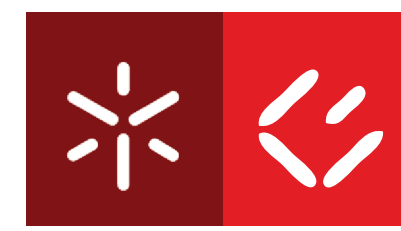Omar Abou Aicha

The Effects of Service Quality on Students' Satisfaction, Associated with The Academic Performance in Higher Education.

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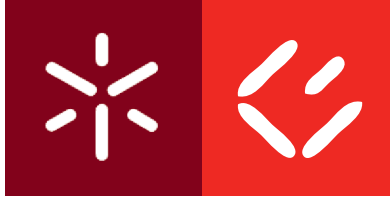Abril de 2018

Universidade do Minho
Escola de Economia e Gestão

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The Effects of Service Quality on Students' Satisfaction, Associated with The Academic Performance in Higher Education.

Master's Dissertation
Master in Management studies

Work developed under the supervision of:
Professor Moritz Von Schwedler

Abril de 2018

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É AUTORIZADA A REPRODUÇÃO PARCIAL DESTE TRABALHO APENAS PARA EFEITOS DE INVESTIGAÇÃO, MEDIANTE DECLARAÇÃO ESCRITA DO INTERESSADO, QUE A TAL SE COMPROMETE.

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Omar Abou Aicha.

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Abstract:

Nowadays, with increased competition, Service quality became the main concern of the higher education institutions to improve their educational criteria. Service quality is customers' assessment of the organization's performance and its amenities and, the fundamental responsibility in assuring service quality is to provide services that satisfy customers' needs. The purpose of this dissertation is to examine the impact of service quality dimensions on the overall students' satisfaction. In addition, the objective is to find out the relationship between overall students' satisfaction and their academic performance. The SERVQUAL model of Parasuraman and Berry (1988) that represent five key dimensions namely reliability, responsiveness, assurance, empathy and tangibility have been used to measure the research objectives in order to generate information based on student satisfaction that may guide Universities' efforts for improvement in academic and non- academic aspects ultimately to provide a better service to their students. The research employs questionnaires as the primary data collection instrument and a non-probability sampling strategy "convenience sampling" of n=300 full-time students. Using statistical methods to analyze the data, the results have shown a significant and positive impact of empathy, responsiveness, assurance on students' satisfaction, and from a weak to moderate impacts of reliability and tangibility on students' satisfaction. This implies that students may tolerate deficiencies in the physical facilities if he/she received acceptable educational level and vice versa. Therefore, higher education institutions need to be aware of the service quality dimensions that influence their students' due to considered as a direct indicator of their satisfaction. The data analysis also showed that satisfaction promotes academic performance and improved outcomes, the research agenda, and discourse should turn to the capacity of administrators to promote improved student satisfaction. It is therefore critical that higher educational institutions begin gauging student satisfaction in some form. This may prompt them to utilize systematic feedback from students on services and programs offered, with the goal of improving student educational outcomes. That satisfied students are committed and motivated to reinforce their academic performance and improve themselves by gaining the desired knowledge and skills after graduation.

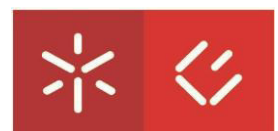*Key Words: Satisfaction, Academic performance, Service Quality.*

Abstrato:

Atualmente, com o aumento da competitividade, a qualidade de serviços tornou-se na maior preocupação das instituições de Ensino superior para melhorar os critérios de educação. A qualidade nos serviços, é a avaliação dos clientes da performance e comodidades das organizações e é da sua fundamental responsabilidade assegurar a qualidade dos serviços de forma a satisfazer as necessidades dos consumidores. O propósito desta dissertação é o de examinar o impacto das dimensões da qualidade dos serviços na satisfação geral dos alunos e na sua performance académica. Inclusive, o objetivo é encontrar a relação entre a satisfação geral dos alunos e a sua performance académica. O modelo SERVQUAL de Parasuraman & Berry(1988), revela cinco dimensões chave, nomeadamente, a confiabilidade, a responsividade, a garantia, a empatia e a tangibilidade, que foram usadas para medir os objetivos da pesquisa, de forma a gerar informação baseada na satisfação dos alunos, que pode guiar os esforços da universidade para melhorar aspetos académicos e não académicos que providenciam um melhor serviço aos seus estudantes. A pesquisa aplica questionários como o instrumento principal na recolha de dados e a amostra é não probabilística de uma "amostra de conveniência" de n=300alunos a tempo inteiro. Usando o método estatístico para analisar os dados, os resultados mostraram-nos um impacto significativo e positivo da empatia, responsividade e garantia na satisfação dos alunos, e de uma forma fraca a moderada, os impactos da confiabilidade e tangibilidade na satisfação dos alunos. Estes resultados implicam que os estudantes podem tolerar algumas deficiências nas instalações físicas se receberem um nível educacional aceitável, ou vice-versa. Em vista disso, as instituições de ensino superior precisam de ter em atenção as dimensões da qualidade dos serviços que influencie os seus estudantes, sendo estas um indicador direto da sua satisfação. A análise dos dados também mostrou que a satisfação promove a performance académica e melhora os resultados, a agenda de pesquisa e que o discurso deve voltar-se para a capacidade da administração em promover e melhorar a satisfação dos estudantes. É por isso critico que as instituições de ensino superior comecem a avaliar a satisfação dos seus alunos de alguma forma. Isto pode leva-los a usar o feedback sistemático dos alunos nos serviços e programas oferecidos, com a finalidade e melhorar os resultados educacionais. Os alunos satisfeitos estão mais comprometidos e motivados a reforçar a sua performance académica e melhorar a si próprios através da promoção dos conhecimentos e ferramentas após a graduação.

Palavras- chave: Satisfação; Performance Académica; Qualidade de Serviços.

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1.1.   Introduction and Background

Recently, globalization robustly influenced the higher education sector. Burnett (2008), defines globalization as 'the flow of technology, economy, knowledge, people, values, and ideas across borders', which has different impacts on the countries according to its particular approach (individual history, culture, traditional and properties). This has increased the competition between higher education institutions to adopt more market-oriented strategies to achieve distinctive features among their competitors and to attract as many students as possible while satisfying current students' needs and expectations (Burnett, 2008).

In the final announcement of the world conference on higher education in 1998, higher education was defined as "all types of studies, training, or training for research at the post-secondary level, provided by universities or other educational establishments that are approved as institutions of higher education by the competent state authorities" (Dias, 1998, P. 374). Furthermore, the conference emphasized the importance of quality in higher education as a multi-dimensional concept- that should be including all its functions and activities: teaching and academic programs, research and scholarship, staffing, students, infrastructure, and the academic environment (UNESCO, 1998). Higher education is an education at college or university level and is perceived as one of the most important institutions to social and economic development through innovation and creativity (Pérez Ones & Jover, 2009; Weerasinghe & Fernando, 2017).

The university is an educational service, where service is produced and consumed predominantly simultaneously. The educational institutions could progress the service quality by investigating the relationship between students and the university campus and their willingness to benefit from all the services which could affect their satisfaction level. According to Alos et al. (2015), studies in the field of student satisfaction address lecturers' education, teaching style, class environment, and infrastructure amongst others. It is reasonable to assume that these factors could influence student's satisfaction. For instance, student's satisfaction level in a lecture is an essential element for them to obtain the knowledge and skill. Students could be satisfied if the lecture meets their

needs and expectations. That could motivate them to make efforts in learning, increase their positive attitude towards the lecture, and come back to attend other courses in the future. Hence, Student's satisfaction is a fundamental indicator of the service quality in higher education (Uka, 2014). Moreover, Colleges and universities are increasingly involved in "rankings wars", which often include some measure of student satisfaction along with college characteristics (Elliott & Healy, 2001; Letcher & Neves, 2010). Given the diversity of students' goals and needs in higher education, the challenge of the universities is to attract the students whose are suitable with the university's capabilities and improve the quality to better serve the needs of diverse student populations. In addition, the university activities may focus on way to hold students satisfied.

Service quality is customers judgment on the organization performance and its services. The fundamental role of the service quality is to produce service that provided customers' needs and measure the extent of match between the delivery service level and customer's expectation which is somehow connected with customer's satisfaction. Recently, service quality became the main concern of the higher education institutions to improve their educational criteria, due to its critical role in customer perceptions. Educational service quality is the dominant element in students' evaluations. The students evaluate the service quality based on their perceptions of the outcome quality, interaction quality, and physical environment quality (Beaumont, 2012; Efendic, 2012).

Zeithaml (1988), the performance of the institutions' administrative and educational system the mains standard of satisfaction. The students will be satisfied and motivated to achieve their studying objective if the educational institution provides high environment conditions to facilitates learning, which should be including of proper infrastructure that established based on academic development standards. Aldridge & Rowley (2001), if students' have a great perceived to their institutions' quality and integrated learning environment facilitated intellectual progress, their interest in the organization will be explicitly retained.

Hasan, & Razak (2009), satisfaction depends on issues of students' perception and experiences issues during the college years. Marzo Navarro (2005), students evaluate the institution quality on the basis tangibility (teachers), reliability and responsiveness (methods of teaching) and institution administration, these factors have a direct impact on students' satisfaction level. Sproule (2000), teachers' ability, skills, reasonability, and coordination have high impacts on the students' performance level. The students are mostly affected by their teacher educational activities. Said,

Sudin (2006), suggest that tangibility, assurance, empathy, and responsiveness can increase customer satisfaction towards services rendered by human resource department. Alves & Raposo (2010), positive perceptions of service quality have significant impacts on student satisfaction, and the satisfied student could attract more students through word-of-mouth communications.

1.2. *Portuguese higher education*

Regarding the division between public and private education, higher education in Portugal is characterized as being essentially public (Vaz, Freira, Vernazza, & Alves, 2016). Based on the Portuguese law 38/2007 of 2007 February. The standards to measure the service quality in the higher education institutions are classified into two groups. The first group is associated with the performance of the higher education institutions. The law has identified several criteria to measure the programmed which include teaching quality, staff qualifications, internal quality assurance, research activity, international cooperation, institutional cooperation, organization and management, facilities and equipment, and the social support. The second group is associated with the achievements/outcomes of the institution activities, as the universities incomes, the employment, the success rates, services to the community, and the public information about the institution and its students work (Bernardino, n.d.).

Alves And & Raposo (2007), measured students' satisfaction in Portuguese higher through estimation a conceptual model of the student's opinion formation process based on European customer satisfaction index. The model presents expectations, perceived image of the university, the perceived technical, and functional quality of the service and the variable value as the main antecedents of satisfaction. As follow:

Figure 1: Conceptual model of student's opinion formation process
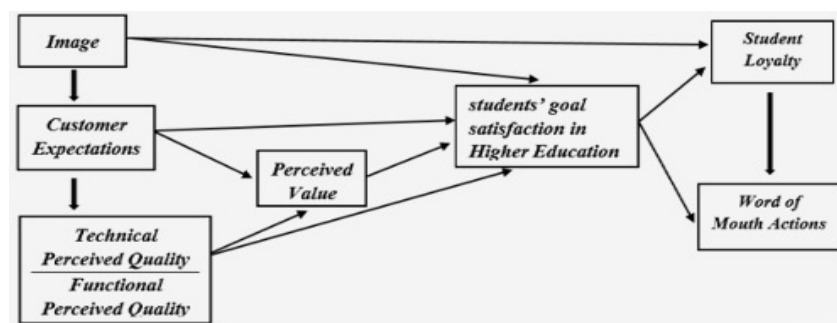
Source: Alves (2007, P.7), Student satisfaction index in Portuguese public higher education

The model highlights that these influences may be direct or indirect through other variables. The model Also presents the main consequences of satisfaction, loyalty, and word-of-mouth. Customer satisfaction indexes represent more reliable methods of measure satisfaction. Hence, Portuguese higher education sector should adopt these indexes to measure student satisfaction, given its critical importance to the higher education institutions on understanding the most influential variables on satisfaction, analyze their performance, and to compare their position to others in the same sector. The study found that students' satisfaction is only moderate: on a scale of 1 to 100, the students' satisfaction with the state university is only 54. So that studies students' satisfaction in the public universities in Portugal should be taken into consideration, and this value could be a benchmark of the universities to compare their performance.

Alves & Raposo, (2009), measured satisfaction through the "conceptual model of student's opinion formation process" and suggests more than one pattern of comparison, i.e. using students' expectations and current needs/wishes. The study confirmed that a global measurement of students' satisfaction was quite useful that presented an individual index of reliability of (83%), while the indicators of expectations and needs/wishes were close to this percentage. In general, this structure presented an internal reliability of 93% and explained 82% of the variance of its indicators. Regarding the formation processes of student satisfaction, when students form their satisfaction in relation to the education service, a cognitive process of comparison of performance received with some patterns of comparison is subjacent, although this also utilizes in a direct way the institution's performance and in a much-reduced way, expectations. However, neither a significant influence of emotion nor an attribution process in the formation of student satisfaction in higher education was proved.

In a study conducted to evaluate Portuguese state universities performance according to students' expectations, perceptions, and satisfaction, using DEA methodology (Data envelopment analysis, empirically measure productive efficiency). Based on output-oriented Variable Returns to Scale model, handling the responses returned by 1669 students, the results show a good relationship between student expectations and their satisfaction levels. Moreover, universities scale does not guarantee efficiency. Hence, regardless of size, universities able to ensure the satisfaction of their students. The study also confirmed that meeting some expectations that related to specific aspects does not prove sufficient to guaranteeing overall student satisfaction. That some decision-making

units proved efficient in meeting specific aspects of students' expectation, while they fail to attain such efficiency in the overall students' perspective (E. W. Mainardes, Alves, & Raposo, n.d.).

Sarrico & Rosa (2014), measured satisfaction in Portuguese higher education institutions based on gap model to collect data on students' perceptions and expectations regarding different aspects of service provision, taking into consideration different types of students. Four factors have identified as the most impact on student satisfaction: scientific area, gender, first or last year of study and their financial position. In result, the study recommended paying more attention to the students who insufficient financial means, as these are less satisfied with their experience. It is important to deal with the students' feedback that students become less satisfied with their experience when they progress in their studies.

Mainardes, Alves, & Raposo (2013), measured student Satisfaction in Portuguese Public University based on a Stakeholder Theory Approach. The theory published by Freeman (1984) which says that 'any group or individual who can affect or is affected by the achievement of the organization's objectives'. Considering students represent a traditional university stakeholder, the objective of quantifying student perceptions is how to meet their demands and expectations. Working on a diversified sample, across the three academic years, academic fields, age, and experiences. The study found that the highest level of satisfaction was related to the university environment, academic life, personal self-fulfillment, new experiences of life and university services. While dissatisfaction was related to more important aspects for the students as low incidence of practical classes, university financial support, and institutional bureaucratic processes. Moreover, the study used the multiple linear regression to identify the demands that have the greatest effects on satisfaction. In results, the factors that impacts overall student satisfaction are: personal fulfilment, study level of demand, value of students in the job market, motivating classes, up to date content, getting a good job after graduation, the university environment (pleasant, safe), more practical than theoretical classes, university bureaucratic processes, and coordination among teaching staff. Hence, overall student satisfaction is primarily depended on university flexibility and adaptability to student needs, the university environment, its services, the level of study demand, student value in the employment market, university technological infrastructures, making new friends and academic life, motivating classes, university bureaucratic processes, personal self-fulfillment, degree-related events, and general university infrastructures.

Chapter 2
Literature review (Satisfaction, service quality & implementation of higher education).

2.1.   Introduction.

This chapter aims to present the relevant literature to provide a theoretical framework for this research. The chapter begins with a review of definitions and some measurements of customer satisfaction and service quality, then highlights the most important aspects of service quality in higher education, and follows by the SERVQUAL model and customer satisfaction which leads to the conceptual framework of the study.

Early in the 1960s, the idea of "vocationalism," discussed the importance of universities role in providing appropriate curricula to master the diversification of jobs and occupations, which consider that knowledge and skills are indispensable in the workplace and could be reflected in universities curricula based on country's demands (Rospigliosi, Bourner, & Heath, 2016). Therefore, higher education plays a major role in creating and transitioning the knowledge in a knowledge based community. Particularly, the capability to apply knowledge and necessary technical skills which contribute to economic development (Tocan, 2012).

Examining factors that have influence on student academic performance is a common practice in educational systems. It is axiomatic that a powerful academic background and skill set is important to college achievement. However, it is generally believed that institutional attributes have a strong impact on student attitudes and their satisfaction with the college experience (Martirosyan, Saxon, & Wanjohi, 2014). Studies the factors that affect student's satisfaction could be helpful to higher education institutions to define their strengths and the ways of improvement (Hameed & Amjad, 2011).

A meta-analysis of the five-factor model of personality and academic performance, student's academic performance influenced by a set of factors as socioeconomic status, gender difference, teaching style, class environment, motivation, and academic activities (Poropat, 2009). Correspondingly, in study conduct among 2001, 2002 about student integration, the study emphasizes the importance of psychosocial support for the student to facilitate and reinforce academic integration, including service learning, learning communities, mentoring programs, and seminars. (Bean & Eaton 2001/2002).

Research involving student satisfaction in business schools pointed out that students who are consistently, or perfectly satisfied often become more self-confident, active participants in the educational process. Satisfied students are committed and motivated to reinforce their academic performance and improve themselves by gaining the desired knowledge and skills after graduation (Adnan, Mohamed, Tarek, Mun, & Hosny, n.d.). In addition, Student feedback such as performance, including academic performance and student satisfaction, is important in understanding the students' perspective on their learning experiences (Sockalingam, 2012).

2.2.   *Student satisfaction*

In the context of literature, the definition of customer satisfaction is based on diverse notions such as experience, service quality, expectations, perceived value, and the consequent of service evaluation (Ali & Amin, 2014). Many researchers have proposed that students are essential customers and partners in the higher education sector as they consciously choose and buy services (Ali, Zhou, Hussain, Nair, & Ragavan, 2016). Student satisfaction plays an essential role in determining the accuracy and quality of the services being provided (Sapri, Kaka, & Finch, 2009). These have supported by Mark (2013), who states that student satisfaction is important because it is the only performance indicator of the service quality in higher education.

Job Satisfaction is a general psychological phenomenon, described as an emotional state resulting from an appraisal of one's experiences in relation to an object, action, or condition. Hence, customer satisfaction is a sentimental reaction to the experiences provided by or associated with, a products or services purchased patterns of behavior such as shopping and buyer behavior, as well as the overall marketplace. Conversely, consumer dissatisfaction considered as an unpleasable emotional state resulting from an evaluation that an object, action, or condition that did not reach or meet the value of the expectation. (Westbrook & Reilly, 1983).

Satisfaction could be also defined as a "affective and variable intensity response centered on specific aspects of acquisition and/or consumption and which takes place at the precise moment when the individual evaluates the object" (Giese & Cote 2000, p.3). In the field of education, Elliott & Healy (2001), defined student satisfaction as a short-term attitude that results from the evaluation of their experience with the education service received. Satisfaction is a state felt by a person who has experienced performance or an outcome that fulfills his or her expectation (Lien, 2017; Workie, Fenta, & Muluneh, 2017) .Likewise, Hunt (1977) defined satisfaction as a

consumer's appraisal of the overall service experience (process and outcome) (Giese & Cote, 2000). It is a state of mind caused by a reaction, that consumer's needs, desires, and expectations of performance have been met or exceeded among the course of the service experiences or actual performance (Butterfield, 2014).

Satisfaction or dissatisfaction is more than a reaction to the actual performance quality due to its effect by a prior expectation (Jhandir, 2012). According to the expectancy disconfirmation model, consumers often form beliefs about product performance based upon prior experience with the product /or upon communications that imply a certain level of quality (Oliver, 2014). Kano extended (1984), has divided satisfaction to three types, "Dissatisfiers" or "must-be" those elements of the customer experience that meet the customer needs or assumptions and their absence or poor performance quickly causes dissatisfaction; "satisfiers" or "more is better" those components that customers easily equate with satisfaction and with meeting reasonable expectations; "delighters" or "ah-hah" factors address needs that the customer was not conscious about or was not expecting (Letcher & Neves, 2010; Wang & Ji, 2010). In a study of Italian higher education environment, proposed the following classification of satisfaction: a) "must be": tutoring, administrative services, contacts with staff and professors, library, teaching equipment, lecture halls, and laboratories; b) "more is better": scholarships, counseling, internships, educational offerings, internet access, refectories; and c) "delighters": career placement, leisure time, accommodations, international relations, language courses, online registration (Letcher & Neves, 2010).

Hasan et al. (2009), satisfaction is a function that relevant to the level of expectation and perception... Expectations are formed from the past experiences, statements, and other associates. Since satisfaction is based on experience, student satisfaction is permanently affected by the students' overall experiences (D'abate, Youndt, & Wenzel, 2009). Some definitions are based on the observation that customer satisfaction or dissatisfaction results from either the confirmation or disconfirmation of individual expectations regarding a service or product (Cengiz, 2010).
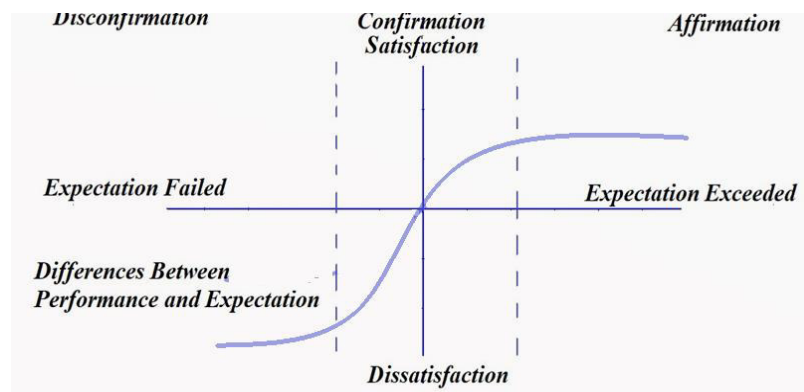
Figure 2: Satisfaction Function.
Source: Anderson & Sullivan (1993, P. 129), The antecedents and consequences of customer satisfaction

Figure 2.1. shows the satisfaction function between perceived quality and expectations. Performance exceeds expectations, satisfaction increases, but at a decreasing rate. As perceived performance falls short of expectations, the disconfirmation is more.

According to Herzberg's two-factor theory of motivation relating to satisfaction, the factors that affect positively on satisfaction (satisfiers or motivators) are different from those factors that cause dissatisfaction (dissatisfiers or hygiene factors). In general, Dissatisfiers are mostly considered as those factors that are part of the environment and broadly under the control of someone other than the student, while satisfiers are part of the job and under the control of the self (Letcher & Neves, 2010). Students have very different needs and motivations for the needs (Felder & Brent, 2005). Student satisfaction indicates to the favorability of a student's personal evaluations of various outcomes and experiences correlated with education (Al Khattab & Fraij, 2011).

Marzo-Navarro et al. (2005), emphasize that student satisfaction is multidimensional and depending on identify student's objectives. For instance, Karimi (2008), found that trust significantly affects satisfaction. University institutions could build trust with students by treating students in a harmonious and equitable method, meeting student's expectations, and handling student complaints in a caring manner (Karimi, 2008). Farahmandian et al. (2013), concluded that perceived quality of an educational experience is a consequence of student satisfaction. The association between service quality and customer satisfaction has emerged as a topic of significant and strategic concern (Wijesiri, 2016).

Parasuraman (1988), described service quality and satisfaction that, "perceived service quality is a global judgment, or attitude, relating to the superiority of the service, whereas satisfaction is related to a specific transaction". Berry and Parasuraman (1991), argue that since customers' satisfaction are affected by the availability of services, providing a high service quality for customers have become a prime concern for all institutions (Angelova & Zekiri, 2011). Service personnel could play a useful role in ensuring customer satisfaction and retention through mastering skills of service behavior (Frazer Winsted, 2000). Douglas & Douglas (2006, p.6), proposed the student experience and its improvement "should be at the forefront of any monitoring of higher education quality".

2.3. Service Quality

Service defines as a means of delivering value to customers by facilitating outcomes customers want to achieve without the ownership of specific costs and risks (Swartz & Iacobucci, 2000). Quality could also be defined as the totality of features and characteristics of a product or services that bear on its ability to satisfy stated or implied needs (Kotler, Armstrong, & Saunders, 2002). Services are described as deeds, processes, and performances that have different characteristics from goods in three aspects in relation to how they are produced, consumed, and evaluated (Nashappi, & Nyamonaa, 2014).

Other notable definitions for services include:

"A service is an act or performance offered by one party to another. Although the process may be tied to a physical product, the performance is essentially intangible and does not normally result in ownership of any of the factors of production" (Strydom 2005, p. 267).

"Services are economic activities that create value and provide benefits for customers at specific times and places, as a result of bringing about a desired change in – or on behalf of – the recipient of the service" (Strydom 2005, p. 267).

"Services are the production of essentially intangible benefits and experience, either alone or as part of a tangible product through some form of exchange, with the intention of satisfying the needs, wants and desires of the consumers" (Bhattacharjee 2006, p. 5).

"An activity or a series of activities of more or less intangible nature that normally, but not necessarily, take place in interactions between the customer and service employees and/or

physical resources or goods and/or systems of the service provider, which are provided as solutions to customer problems" (Mal Kong & Muthusamy 2011, p. 146).

Service quality is "the degree to which an event or experience meets an individual's needs or expectations" (Martínez-Caro et al. 2015, p. 2). The definition of service quality was consistent with Parasuraman, Zeithaml, & Berry (1988) who stated that "perceived quality is the consumer's judgment about an entity's overall excellence or superiority" (Martin 2016, p. 39). In general, service quality is defined as a consumer attitude reflecting perceived overall superiority and excellence in the process and outcome of a service provider. Similarly, service quality is a global judgment or attitude relating to service and results from comparisons by consumers of expectations of service with their perceptions of actual service performance (Al Khattab & Fraij, 2011). Service quality performance is objectively determined by customer expectation and perception during service encounters (Hung, Huang, & Chen, 2003). Hence, understanding customer expectations and perceptions is the first step in delivering 'high service quality' (Al Khattab & Fraij, 2011).

2.3.1. *Service Quality Dimensions*

The main concern of service quality dimensions is ordinarily the range of areas that should be included. According to Ramaiyah & Ahmad (2007), customers should be the determinants of service quality dimensions rather than the management or the academic staff of the respective institution of higher education. Parasuraman & Berry et al. (1990), proposed five dimensions of service quality as follows:

1. Tangibles: the equipment, physical facilities, and appearance of personnel.

2. Empathy: The provision of caring and individualized attention to customers.

3. Reliability: The ability to perform the desired service dependably, accurately, and consistently.

4. Responsiveness: The willingness to provide prompt service and help customers.

5. Assurance: Employees courtesy, knowledge, and ability to convey trust and confidence.

Service quality dimensions could be classified into three categories: technical quality (service product), functional quality (service delivery) and corporate image (service environment). The technical quality dimensions could be measured objectively regardless of customer's opinion while functional quality is highly related to the interaction between the service provider and customer (Ramaiyah & Ahmad, 2007). Moreover, many researchers state that service quality can be

measured by making the comparisons between customers' expectations and perceptions. Hence, each one of the quality dimensions are said to be quantifiable by "obtaining measures of expectations and perceptions of performance levels of service attributes relevant to each dimension, calculating the difference between expectations and perceptions of actual performance on these attributes, then averaging excess attributes" (Gunning 2000, p.2).

Gunning (2000), the distinctions between customer satisfaction and service quality could represent as follows: 1. Customer satisfaction is a value dependent phenomenon whereby value is the ratio of perceived quality relative to price. Satisfaction is therefore dependent on price; service quality is not generally dependent on price. 2. Cumulative customer satisfaction is based on current experience, past-experience, and all anticipated future experience. however, quality is viewed as it relates to a customer's current perception of a good or service. 3. Quality is an antecedent of customer satisfaction. Therefore, service quality should be generally approached from the customer's point of view, because they may have different values, a different ground of assessment and different circumstances (Carlsson, 2010).

2.3.2. Customer expectations

The essential feature of service quality is its obligation to measure how services delivered match customers' expectations, which contribute ultimately to customers' satisfaction (Kang, Jame, & Alexandris, 2002). Service quality represents the capability to meet or exceed the outcomes that determine by the provider and customer at the beginning of a service encounter, which necessitates the need to conceptualize the term as cognitive, post-purchase phenomenon (Meštrović, 2017). It is generally agreed that "expectations are consumer-defined probabilities of the occurrence of positive and negative events if the consumer engages in some behavior'' (Martin & Simmons 1999, p.69). Customer expectations have defined as beliefs about service delivery that serve as standards for the judgment of the actual service delivered to the customer (VAN THAI, 2015).

Expectations are divided into three categories consisting of exemplary expectations (is what the customer prefer to happen), predictions (is what the customer thinks is likely to happen) and normative (evolving through experiences with similar services), which has a high impact on the customer's satisfaction evaluation (Borghi, Mainardes, & Silva, 2016). On the other hand, Madan (2012), has described the impact of the environment components on service encounter elements. Firstly, Physical environment such as external and internal environmental design, secondly, the

level of interaction between customers and tangible and intangible elements in the service environment, lastly, the periods when customers interact with physical facilities.

Many researchers have used expectations in their studies about customer behavior. Ordinarily, customer expectations are based on their own standards, values, needs, wishes, etc. (Al Khattab & Fraij, 2011). Cardozo (1965) argues that ''knowledge about customer effort and expectations is important because these factors are major components of customer behavior and because management can, within limits, influence the amount of effort customers expanded and their expectations''. Customer effort involves the physical, financial, and mental resources, expended to obtain a product or service (Martin & Simmons 1999, p.73). However, expectations are not constant and could alter over time due to changes in ambition levels at a while. Simultaneously, individuals do not only determine expectations by themselves, but also by reference groups, external situations, time, norms, and the like (Al Khattab & Fraij, 2011). In higher education, Helgesen & Nesset (2007), confirmed the impact of the image on students' behavior, which considers the institutional actual image as an attitude shaped by student satisfaction. That students' perceived service quality is an antecedent to student satisfaction. Positive perceptions of service quality can lead to student satisfaction and satisfied students may attract new students through word-of-mouth communication and return themselves to the university to take further courses (Gruber, Fuß, Voss, & Gläser-Zikuda, 2010). In contrast, customers could change service providers if they feel dissatisfied with the service provided (Al Khattab & Fraij, 2011).

According to Lovelock (2011), Comprehensions customers' expectations mean understanding how the customers evaluating service when they compare their expectations with what they received. If the service that provided meet or exceeds customers expectation, customers believe that the service has high quality. Customer expectations vary depending on what kind of business service, and different positioning strategies of different service providers. Expectations are affected by previous experiences of the service provider, competing services in the same field. If the customer does not have any previous experience they are more likely to base their expectations on word of mouth. In addition, customer expectations change over time because they are influenced by new service innovation, technologies, social trends...etc. A successful institution that can meet expectations in every step.

The following model summarizes the factors that influence/ determine the customer expectation which provided above.
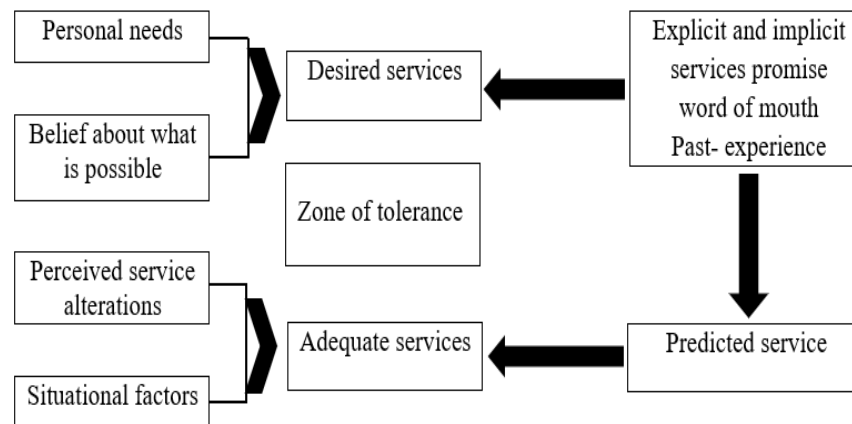
Figure 3: The nature and determinants of customer expectation of service.

Source: Services Marketing (Lovelock 2011, p.66).

Expectations are playing a fundamental role in customer evaluation of service quality. Customers satisfaction could be determined through the extent of product quality/service meet primary needs, wants and desires of consumers rather than comparing the performance to the exemplary standard. That the service encounter is ''interpreted in a rich context of remembered and construed representations of what it could have been, or should have been'' (Martin & Simmons 1999, p. 70). Moreover, expectations mirror anticipated service performance. Distinguished three types of expectations: those related to the nature of the service, cost, and effort desired for obtaining benefits from the service, and those related to social benefits or social costs of the service (Khoo et al., 2017).

2.3.3. Perceived service quality

Perceived service quality has widely defined as the discrepancy between customers' expectations and their perceptions of the service performance (Bei & Chiao, 2001). According to Lamb et al. (2010), perception described as, "the process by which an individual select, organizes, and interprets stimuli into a meaningful and coherent picture of the world" (p. 91). Perceived service quality is different from objective or actual performance, a high-level abstraction rather than a specific attribute of a product, a global assessment that in some cases resembles attitude, a judgment usually made within customers evoked set (Bei & Chiao, 2001). Perceived performance often differs from objective or technical performance, especially when a product/service is

complex, intangible, and when the consumer is unfamiliar with the product/service (LIU & ZHAO, 2013). Moreover, perceptions can be defined as the action and reaction of consumers. In fact, each consumer is an individual phenomenon, which is based on their needs, wants, values, and experiences. Hence, consumer perceptions very important more than their knowledge of objective reality. Because consumers make decisions and take actions based on what they perceive as reality (Schiffman & Kanuk, 2007).

Customers shape service quality perceptions on the grounds of their estimations of three primary dimensions: outcome, interaction, and environmental quality. Customers are the primary judgment on service quality based on his/her evaluations of outcomes and interactions with service providers. Richard Normann suggests "Moments of Truth", to show the importance of contact points with the customer, which emphasize that perceived service quality is realized at the moments of truth. when the customer interacts directly with the service provider in a service encounter at a period. It is the skill, the motivation and the tools employed by the firms representative and the expectation and behavior of the customer which together will create the service delivery process (Lovelock, 2011). The third base dimension mirrors the extent impact of services environment on quality perceptions. The quality received by consumers must be perceived to be reliable, responsive, and empathetic (Brady & Cronin Jr, 2001). Furthermore, in a study about customer participation and perceived service quality, there is a possible relationship between customer participation and service quality. That customer participation does not only play an important role in producing the service, but also in its definition. Which in turn influences on service quality. hence, customers could perceive a higher service quality if they had to participate in its production (Dabholkar, 2015).

Customer satisfaction strongly associated with perceived service quality and perceived value. As the gap between perception and expectation is negative because the services that received did not meet the customer expectation. If the administration wants to reinforce customers' satisfaction evaluations, it could be more helpful to effects customers' perceptions of the service performance than changing their expectations. Perceive value play a subset mediating role in the relationship between service quality and customer satisfaction (Jhandir, 2012). Perceived value considered to be a determinant of customer satisfaction. High customer perception of the service quality leads to exceeds the costs of obtaining the service, higher perceptions of service value leads to highest

satisfaction (Tam, 2004). In result, customer satisfaction and perceptions of quality depend on the extent to which customer expectations are matched by products/services (Manjunatha & Shivalingaiah, 2004).

The information and discussion that provided about customers' expectations and perceptions connected to the following model of Perceived Service Quality. It highlights the gap between customer expectations and perceived service quality.
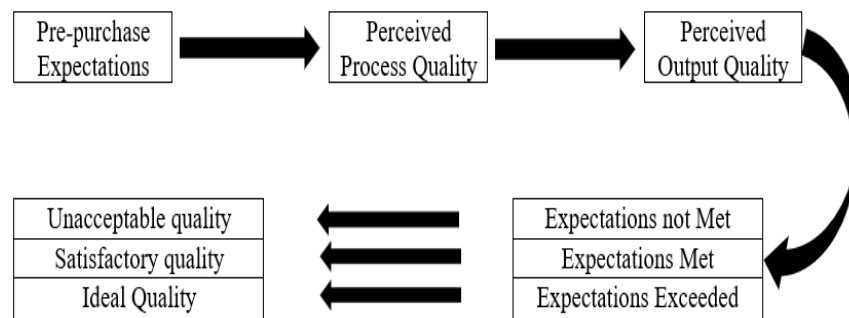
Figure 4: balancing customer perceptions and expectations

Source: Carlsson (2010, P. 20), perceived Service Quality

2.4. *Service Quality in Higher Education*

According to Abdullah (2005), service quality in higher education institutions is a multidimensional framework which often approached from a range of indexes. Although there isn't consensus on the dimensions that frame educational service quality, many researchers approved a set of dimensions that related to the educational service quality such as teaching quality, administrative service quality, academic resources quality, and student support quality (Manzoor, 2013; Voss & Gruber, 2006). These dimensions have a very substantial value in the conceptualization of higher education service quality and students' satisfaction (Abdullah, 2006). Therefore, it is important to explore these dimensions to provide a deeply perceptive of educational service quality dimensions embraced by students and how these dimensions effects on students' satisfaction in the higher education (Chua, 2004).

Sultan & Yin Wong (2012) state that, past- experience forms a cognitive standard that helps in evaluating the service quality level. In other words, the degree of prior experience affects

consumers' perception of service quality. In higher education institutions, past-experience consists of receiving education service in the previous studying years, which may provide a foundation for evaluating educational service quality of a potential university. Students' recent experience with the university staff may also provide a foundation for shaping service quality perceptions of a potential university. In a study about student satisfaction in business school, overall student satisfaction depends on the minimum expected standard is being met. Student expectations have shaped by individual needs, past experiences with professors, team projects, student activities, and word-of-mouth from other students, as well as the college's various means of communication. For instance, student feedback tends to confirm that they do receive high-quality teaching from staff with high levels of expertise in their various academic disciplines (Douglas, Douglas, & Barnes, 2006; Seng & Ling, 2013). Hence, student satisfaction and educational service quality have a great importance for service providers that they need to achieve the aim of delivering the maximum possible level of perceived service quality and on satisfied customers (Meštrović, 2017).

Higher education institutions are already used student's expectations and perceptions of service quality tools to measure the level of satisfaction. Although the important role of expectations and its impact on the educational service evaluation, the expectations of students and academic aspects of educational service quality such as teaching quality, teaching methods, and course content are quite stable over time. Students' satisfaction could be predicted through three factors, trainer's performance, services delivery, and support facilities (Borghi et al., 2016; Sapri et al., 2009).

According to Frazer Winsted (2000), service providers can deliver perfect services if they know what their customers want. Universities could affect positively on students' perception of service quality and satisfaction levels if they know how students perceived the providing services, and be able to adapt its services to a certain degree. Therefore, the academic directors should concentrate on understanding the students' needs. Douglas & Douglas (2006), suggest that the student experience and its improvement "should be at the forefront of any monitoring of higher education quality" (P.6). On other hand, Oldfield & Baron (2000).maintain that "there is an inclination to view service quality in higher education from an organizational perspective" (P. 86).

In a case study about the effectiveness of e-learning (Blackboard system) in relation to students' perceived satisfaction, the study shows that trainers' characteristics will influence learners' perceived satisfaction, that environmental characteristics will affect perceived satisfaction,

perceived usefulness, and e-learning effectiveness. The perceived satisfaction and perceived usefulness will positively affect learners' behavioral intention of e-learning usage. Furthermore, there was a significantly high correlation (r = 0.70) between learners' behavioral intention participate in e-learning and e-learning effectiveness (Liaw, 2008). Hill et al. (2003), found that lecturers and the support system are the most predictors of students' satisfaction.

2.4.1. Lecturers' efficacy

Lecturers' efficacy sometimes refers to the teaching effectiveness. An effective lecturer can change a student's behavior, motivation, and the overall learning outcome (Gordon, 2001). The professional competencies of a lecturer cannot be only described as a capability to give lectures, but also the willingness and ability to use a range of teaching strategies skillfully, take on responsibility during the educational process and the ways of dealing with problems and find appropriate solutions (Žeravíková, Tirpáková, & Markechová, 2015). "Teaching staff are key actors in a university's work" (p. 221). Therefore, the behaviors and attitudes of lecturers should be the essential determinant of students' perceptions of educational service quality. If lecturers know the expectation of their students, may they be able to adapt or change in their behavior to meet their students' expectations, which could have a positive influence on their perceived of service quality and satisfaction level (Voss & Gruber, 2006). In the result, teaching quality represents the gap between teaching plans and the teaching activities that practiced, which considered as the main factor in determining students' perceptions of the nature of teaching service quality (Douglas et al., 2006).

According to Richardson & Swan (2003), there is a positive relationship between professor experience/ skills and student's satisfaction, that professor effectiveness depends on their years of experience. The relationship between teacher experience and student achievement is difficult to clarify since this variable is highly affected by college conditions (Zuzovsky, 2009). The most important characteristic of an effective lecturer is flexibility, creativity, and responsibility to provide an instructional environment able to respond to the learner's individual needs (Tulbure, 2012). Kuo et al. (2013), Learning styles and instructional strategies are the most influence on student's satisfaction. In the meta-analysis, students' perceptions of supportive teacher relationships were correlated, on average, between 0.25 and 0.55 with academic and social outcomes including participation, satisfaction, self-efficacy, critical thinking, standardized

achievement, increasing attendance, reducing disruptive behavior, and higher grades. Conversely, findings suggest students' motivation and adjustment to school may be adversely affected when their relationships with teachers are distressed (Summers, Davis, & Hoy, 2017).

Many studies emphasize the significance relationship between student's interest in the academic subject, classroom environment, and its satisfaction (Richardson & Swan, 2003; Wu, Tennyson, & Hsia, 2010). Liaw & Huang (2013), found that Students' attitudes are associated with modern learning technologies and satisfaction. Professors should understand the Students' attitudes because it reflects students' subsequent behavior (Popham, 2005). Ahmed et al. (2017), many aspects that motivate the students to integrate into lecture activities such as, professor skills in selecting the textbooks and clarify some examples that related to the reality of practical life to facilitate the subject of the course and be understandable. Ku et al. (2013), positive learning environment plays a fundamental role in attracting students' attention and learning commitment. Moreover, Students satisfaction associated with the class registration process, that an efficient and user-friendly online registration system that offers a large variety of courses at various times to meet student demand could lead to student satisfaction (Adnan et al., n.d.). Taking into consideration, motivated and satisfied teachers are the most impact on the student positive learning and vice versa. Therefore, Educational leaders and administrators must have special attention to the phenomena of motivation and job satisfaction (Dhaqane & Afrah, 2016).

2.4.2. Student-Faculty Interaction

Student-faculty interaction is playing a fundamental role in influencing students decisions and increasing students' educational aspirations (Endo & Harpel, 1982). College professors should know that interaction with the students during office hours does not provide sufficient opportunities for interaction. Professors need to be aware of students' personality differences and their impacts upon students' behaviors (Halawah, 2006). The relationship between the student and faculty depend on the student satisfaction with the academic and non-academic aspects of college (Mihanović, Batinić, & Pavičić, 2016). Intellectual development was significantly correlated with the Academic Integration, Faculty Concern, Informal Faculty Relations, and Social Integration (Halawah, 2006). Although most interactions with faculty take place within official classroom frame, students who experience unofficial interactions tend to be more motivated, integrated, and actively participated in the learning process (Komarraju, Musulkin, & Bhattacharya, 2010). Which

suggests, that student-faculty interaction may indirectly impact gains and satisfaction through the educational effort students put forth (Kuh & Hu, 2001). The unofficial interaction between students and faculty has identified as the essential factor of college culture, which has a high impact on the attitudes, interests, and values of college students. Hence, If the student has a positive or close relationship with one faculty member is more likely to feel more satisfied with their college life (Komarraju et al., 2010).

Based on college student outcomes, student-faculty interaction has grouped into five categories: plans and educational aspirations, satisfaction with college, intellectual and personal development, academic achievement, and college persistence. Pascarella suggests that statistically significant positive associations exist between student contact with faculty and these five categories (Kim & Sax, 2009). In study conduct among 2001, 2002 about student integration, the study emphasizes the importance of psychosocial support for the student to facilitate and reinforce academic integration, including service learning, learning communities, mentoring programs, and seminars (Rodgers & Summers, 2008). The researcher also emphasized that, the interaction between students and faculty could be enhanced by having a diverse college environment (Pike & Kuh, 2006). A good relationship between students and faculty leads to better academic performance and problem-solving skills (Ghazivakili et al., 2014). In addition, total college experience contributes to a student's overall satisfaction as the university's product is the sum of the student's academic, social, physical, and spiritual experiences (Khawaji, Tessema, & Nordin, n.d.).

2.5. *The influence of demographic factors on the students*

This study focuses the influence of gender, year of study, the program of study on student's perception, satisfaction of service quality. According to Ganesan-Lim et al. (2008), gender may influence perceptions of interaction quality, physical environment quality, outcome quality and systems quality because of gender role socialization, decoding ability, differences in information processing, traits and the importance placed on a core or peripheral services. Laroche et al. (2000), show that females tended to rely more heavily on the service environment and tangible cues in the environment to make service evaluations. While Males considered less information and tended to take shortcuts in taking the decision. Mattila et al. (2003), found that Males are often outcome-focused in valuing efficiency more than personal interaction during a typical service interaction compared to females. In a study conducted in Australia about gender differences in the experience

of higher education, the study shows that, firstly, females student gives a high attention to university services than male students. Secondly, as female students advance through their studies (from undergraduates to graduates), they seem more exigent about the service quality, while male students remain relatively permissive (Grebennikov & Skaines, 2009).

Regarding students' year of study, Corts et al. (2000), emphasize that there is no significant difference between junior and senior students' perceptions of satisfaction. Hill (1995), shows that students' expectations are stable over time that may take shape before to arrive at the university. However, students who are studying for longer perceived that there was a reduction in their quality experience, which refers to less stable. Yusoff et al. (2015), found that year of study, the program of study and semester grade have a significant impact on student support facilities and class sizes. Marzo Navarro et al. (2005), examined the impact of degree program on students' satisfaction in Spanish University System. The study shows that teaching staff, teaching style, and course administration have a significant impact on students' satisfaction. Likewise, Kanan & Baker (2006), the efficacy of academic educational programs significantly impact on students' satisfaction. Moreover, Students will be both attracted to and more inclined to stay with a course that meets their learning needs. So that, it is very important to understand students' attitudes and their perceptions of learning program within an educational institution which is highly committed to learning and teaching in general, and to the concept of student-centered learning (it needs to be fundamentally student-centered) (Lea, Stephenson, & Troy, 2003).

2.6. Service Quality Model

The SERVQUAL (Service quality) model was debut developed by Parasuraman, Zeithaml, and Berry (1985) and it has served as a foundation for research in services marketing over two decades. The model is based on the expectation-confirmation or disconfirmation paradigm, which maintains that "satisfaction is related to the size and direction of the disconfirmation experience where disconfirmation is related to the person's initial expectations" (P.42). The GAPS model aims to determine the possible causes for a gap between expected quality and perceived quality. The model structure clarifies several aspects such as strategies, decisions, and the necessary actions of the institution to offer services which are already based on customer needs and wants, and goes back to the consumer for the comparison between their expectations and perceptions of the services provided (Anantharanthan Parasuraman, Zeithaml, & Berry, 1985).
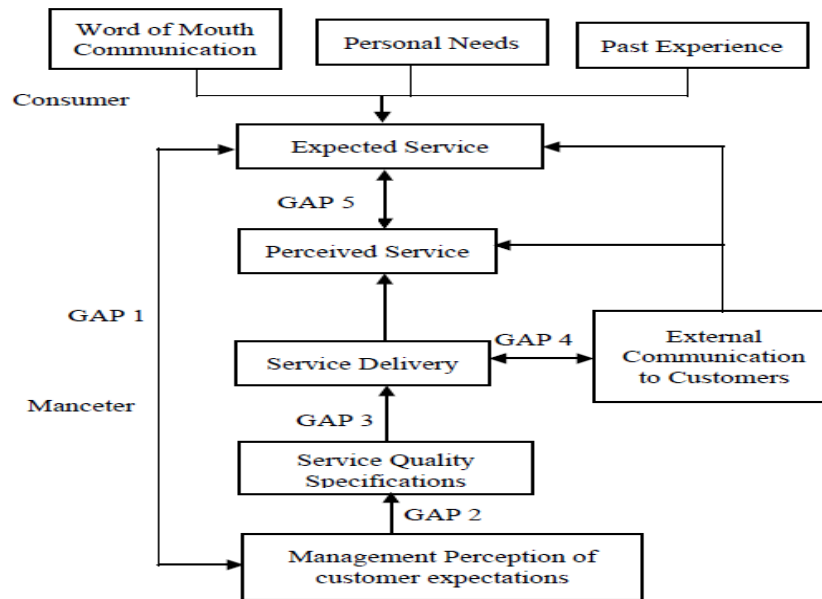
Figure 5: Service Quality Model

Source: Parasuraman et al. (1985, P. 44), A conceptual model of service quality.

The SERVQUAL model in figure 3 outlines five service quality gaps which are:

1- The gap between consumer expectations and management perceptions of those expectations.

2- The gap between management perceptions of consumer expectations and the firm's service quality specifications.

3- The gap between service quality specifications and actual service delivery.

4- The gap between actual service delivery and external communications about the service.

5- The quality that a consumer perceives in a service is a function of the magnitude and direction of the gap between expected service and perceived service (which adapted to this study).

Expected-perceived service gap is the key to ensure a good service quality that meets or exceeds what consumers expect from the service. More deeply, whatever the type of service, consumers often used similar criteria in evaluating service quality. These criteria divided into ten key categories (Reliability, Responsiveness, Competence, Access, Courts, Communication, Credibility, Security, Understanding, Tangible) which called service quality dimensions. Later, Parasuraman et al. (1988) reduced the ten attributes to five attributes. The model of changed SERVQUAL was reliability, responsiveness, assurance, empathy, and tangibles. The study maintains that the dimensions are non-overlapping. It is quite possible that the relative importance of the dimensions in molding consumer expectations (prior to service delivery), may differ from their relative importance vis-a-vis consumer perceptions of the delivered service. The following

Figure indicates the dimensions of service quality that have used to evaluate the service quality. The model shows that perceived service quality is the result of the customer's comparison of expected service with perceived service (Ananthanarayanan Parasuraman, Zeithaml, & Berry, 1988; Anantharanthan Parasuraman et al., 1985).
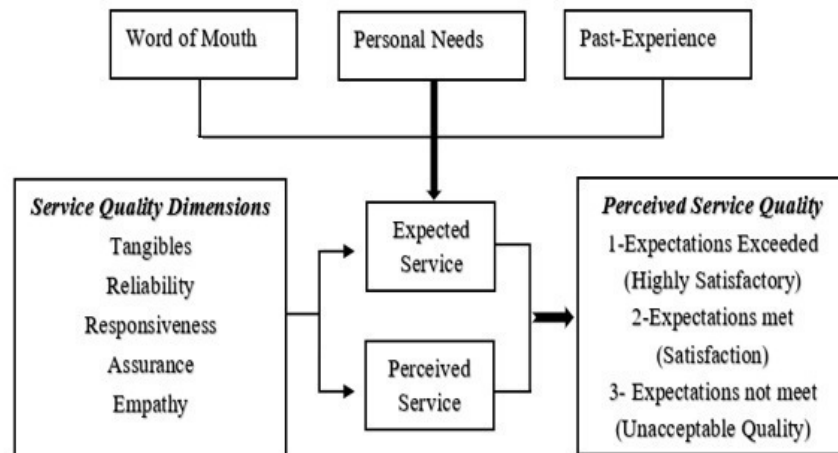
Figure 6: Dimensions of Perceived Service Quality.

Source: Parasuraman et al. (1988, 1985, P. 48), A multiple-item scale for measuring consumer perception.

SERVQUAL is the most common model that used to measure students' satisfaction around the world. SERVQUAL is a questionnaire that has been designed, developed, and tested in a business environment to measure service quality and customer satisfaction. This questionnaire administered twice, one to measure customer expectation and next to gain customer perception. The following table presents several studies that used SERVQUAL model to measure students' satisfaction in higher education.

Table 1: The effects of SERVQUAL model on student's satisfaction in higher education.

AUTHOR	STUDY	FINDING
Tan & Kek (2004).	Measure student satisfaction at two local universities in Singapore using a sample of 958 engineering student's computer.	The findings indicated a significant correlation among all the dimensions of student satisfaction in both universities.
Arambewela & Hall (2006).	Examine the relationship between the SERVQUAL and satisfaction among four cohorts of Asia (China, India, Indonesia, and Thailand) studying in universities in Australian universities.	The study found significant differences between the country of origin and the SERVQUAL constructs and discusses strategic implications and opportunities for higher educational institutions.
Hasan et al. (2009).	Service quality and student satisfaction in Malaysia, using a Case Study at Private Higher Education Institutions.	The study shows that the SERVQUAL dimensions had a significant positive relationship with student satisfaction.
Munteanu et al. 2010).	Investigate differences in student satisfaction across different programs of the same business college, and to identify dimensions underlying overall perceived quality at Cuza University in Romania.	There is differences correlation between satisfaction and overall quality. Some of the satisfaction experiences have greater impacts on perceived quality than others. Reliability was the most correlated (Cronbach alpha lies between 0.60 and 0.85).
Nguyen (2012).	Examine the Effects of Service Quality and Price Fairness on Student Satisfaction at Vietnam universities.	The study showed that administrative service quality was significantly and positively related to student's satisfaction.
Asaduzzaman et al. (2014).	Examined service quality and student satisfaction in private universities in Bangladesh using a sample of 550 business students.	The findings indicated a significant correlation among all the dimensions of student satisfaction
van Schalkwyk & Steenkamp (2014).	Explored service quality and its measurement for private higher education institutions in South Africa. A sample of 984 students used to collect service quality data.	The findings of the study indicated that the five dimensions of the SERVQUAL had a significant influence on the satisfaction and perception of service quality.
Ahmed & Masud (2014).	Examined the service quality and student satisfaction in higher educational institute in Malaysia.	The study found lecturer quality and quality of academic programmers had a direct and significant relationship with the satisfaction level of the students.
Ali et al. (2016).	Investigate the effect of Malaysian public universities' service quality on international student satisfaction.	The study shows that all the five dimensions of higher education service quality positively influence student satisfaction.

Chapter 3
Research Method & Objectives
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1. Introduction

The methodology of this study provides an empirical framework that aims to treat the research problem and figure out the optimal methods to find the study results and employed in prediction for effective decision-making. The methodology adopted describes the population, sampling procedure, instrumentation and data collection approach used. It allowed for the description of the influence of service quality on students' satisfaction university at the University of Minho in Braga, Portugal.

2. Research design and structure
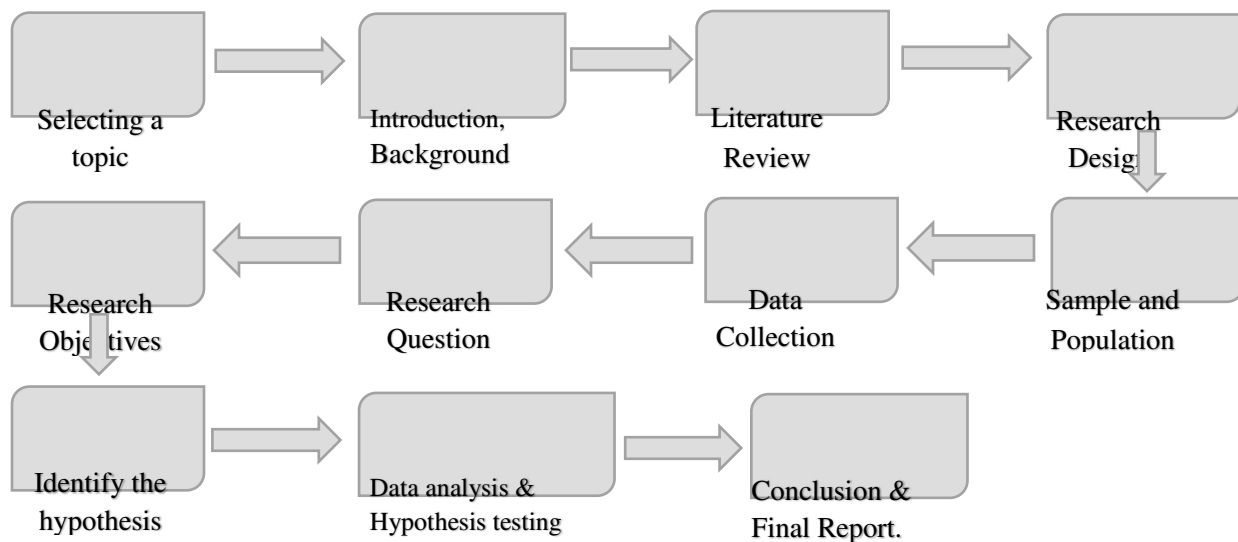
This study considered under the quantitative methods that emphasize objective measurements and the statistical, mathematical, or numerical analysis of data collected through polls. The main purpose of this study is to examine the impact of service quality on overall student satisfaction and to find out the relationship between satisfaction and their academic performance. In order to achieve this purpose, the study used a cross-sectional study that provides a snapshot of a single moment in time. A Questionnaires as primary data has used to test those hypotheses developed. More deeply, the Questionnaires was based on The SERVQUAL gap model (expectation and perception), which is consisting of five keys dimensions of service quality (tangibility, Reliability,

responsiveness, assurance, and empathy) that have already adapted to service quality in higher education. Lastly, we used a descriptive statistic provides simple summaries about the sample, the measures, and provide the results in simple graphics and tables to simplify of reading the results (Hisam, Sanyal, & Ahmad, 2016; Kundi, Khan, Qureshi, Khan, & Akhtar, 2014; Oluwunmi, Durodola, & Ajayi, 2016).

The measurement of service quality dimension is often following formula:

Quality = Customer's perception - Customer's expectations.

Overall Students Satisfaction = The average of perceived quality.

Nell & Cant, (2014), perceived the quality is a direct indication of customer satisfaction. Several studies indicated that satisfaction is proved as the result of both service quality and perceived value; therefore, service quality and perceived value are indications for customer satisfaction (Kärnä & Julin, 2015; Kimani, Kagira, & Kendi, 2011; Oluwunmi et al., 2016).

Students' Academic performance identified by the Grade Point Average (GPA) that adapted with the University classification and five Likert Scale as follows:

Minho Grades	16-20	14-15	13	12	10-11
Classification	A	B	C	D	E
Likert Scale	Excellent	Very Good	Good	Acceptable	Poor

3. Sampling and Population

The current study used a non-probability sampling strategy called "convenience sampling". Convenience sampling (also known as Haphazard Sampling or Accidental Sampling) is a kind of nonrandom sampling, where all the target population members meet certain practical criteria, such as easy accessibility, geographical proximity, availability at a given time, or the willingness to participate in the study purpose. The substantial objective of convenience sampling is to collect data from participants, who are easily accessible. Furthermore, the major presumption connected with convenience sampling is that the members of the target population are homogeneous. That is, there could not be a difference in the research results obtained from a random sample, a nearby sample, a co-operative sample, or a sample gathered in some inaccessible part of the population (Etikan, Musa, & Alkassim, 2016).

The population: statistically, population refer to the total number of cases that can be included as research subjects. The population of this study is all the registered students at the University of Minho in the school of economics and management, bachelor /master level, the academic year 2017 / 2018.

Studying area includes:

Accounting, Economics, International Business, Finance, Management, Marketing, Political Science, Public Administration, International Relations, Business Administration.

4. Data Collection

Data were collected by means of a self-administered questionnaire, filled in by 300 full-time students at the beginning/the end of the lecture, the end of some seminars and through the students' activities, with informing the participants about the purpose of collecting the data. Similar by (Đonlagić & Fazlić, 2015; Legčević, 2010; Ndamnsa, 2013).

The study has tested the reliability of the questionnaire using Cronbach's alpha coefficient based on 30 responses, that shows ($\alpha = 0.738$), which is an acceptable value.

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.736	.738	5

5. Research Question

Generally mentioned the importance of service quality as the main standard of students' satisfaction. That satisfied students are committed and motivated to reinforce their academic performance and improve themselves by gaining the desired knowledge and skills after graduation. The study provides the following questions to achieve the research objective.

a. Does higher education service quality effect student satisfaction?

Students are essential customers and partners in the higher education sector as they consciously choose and buy services. In addition, student satisfaction plays a major role in determining the accuracy and quality of the services being provided.

b. Does student satisfaction lead to better academic performance?

If student satisfaction is related to student performance, then perhaps performance can be improved by improving student services or their academic experiences.

6. Research Objectives

The purpose of this study is to examine the impacts of the service quality dimensions on overall students' satisfaction using SERVQUAL model. This research aims to answer the above questions to generate information based on student satisfaction that may guide efforts for improvements in academic and non- academic aspects at the universities level to provide better serve their customers/students. Service quality of higher education depends on academic (those aspects that related to learning approach/ style) and non-academic aspects (those related to the university environment/facilities) of the university. This research attempts to determine the key aspects of student satisfaction that could reinforce their academic performance. The following variables will be looked at:

1. Able to get desired classes?
2. Knowledgeable faculty;
3. Overall quality of instruction;
4. Safe and secure campus;
5. Access to information;
6. Financing /financial support;
7. Perceived/subjective performance;
8. Feedback mech;
9. Academic advising effectiveness;
10. Responsiveness to diverse populations.

7. Hypotheses:

1. The relationship between Tangibility and satisfaction

Tangibility is defined as physical facilities, equipment, and appearance of employees and management team (Berry et al., 1990). It is also defined as the necessary resources that needed to provide services to customers. In higher education, tangibility described as academic-support facilities, appropriate classrooms, libraries, ease of accessing written materials, etc (Chui & bin Ahmad, 2016). According to Parasuraman et al. (1985), the visually appealing environment will have a favorable consequence on the customer satisfaction. The above arguments lead to developing the following hypothesis:

H1: Tangibility has a significant impact on overall student satisfaction

2. *The relationship between Reliability and satisfaction*

Reliability is defined as the ability to perform the required service to customers dependably and accurately. Further, handling customers services problems, performing service required right from the first-time, promised time and without errors is the pattern of reliability (Berry et al., 1990). In higher education, ease of contact with teachers and provide convenient office hours, administration staff willingness/able to solve students' problems at the expected time, and provide prompt service is the mean paradigm of reliability that related to the students' satisfaction (Chui & bin Ahmad, 2016). The above arguments lead to developing the following hypothesis:

H2: Reliability has a significant impact on overall student satisfaction

3. *The relationship between Responsiveness and satisfaction*

Responsiveness is defined as the interest shown in providing prompt service to customers when required. Further, it is also defined as the willingness to provide prompt service and help customers without any inconvenience at any time (Berry et al., 1990). In higher education, the willingness of the university members to help students and provide the required service, effective classroom management, match the goals, contact academic staff with minimum difficulty and handling complaints and solving problems are the mean responsiveness paradigm that related to the students' satisfaction (Chui & bin Ahmad, 2016). The above arguments lead to developing the following hypothesis:

H3: Responsiveness has a significant impact on overall student satisfaction

4. *The relationship between Assurance and satisfaction*

Assurance is defined as the knowledge/awareness and good manners of employees. Further, it is also defined as employees' ability in building trust with the customer through the service process (Berry et al., 1990). In higher education, described as the ability to convey trust and confidence to students through the educational services provided, the concern of lecturers and academic staff about student welfare and interest, fairness in grading and courteous handling of student's problems is the assurance paradigm that related to the students' satisfaction (Chui & bin Ahmad, 2016). The above arguments lead to developing the following hypothesis:

H4: Assurance has a significant impact on overall student satisfaction

5. The relationship between Empathy and satisfaction

Empathy is defined as the ability to take care of customer's attention individually in providing service to customers. Further, understanding the customer's specific needs/expectations better than the competitors in providing the required customer service at any time and without any inconvenience will have a positive outcome on customer satisfaction (Berry et al., 1990). In higher education, the ability to show the personal care of student through the educational process, dealing with different student's experiences, the interactions between the academic staff and the students, and availability of guidance and advisory is the paradigm of empathy that related to students' satisfaction (Chui & bin Ahmad, 2016). The above arguments lead to developing the following hypothesis: *H5: Empathy has a significant impact on overall student satisfaction*

6. The relationship between students' satisfaction and academic performance.

Dhaqane & Afrah (2016), studying the relationship between student satisfaction and their academic performance is important in neoteric higher education because satisfied students are more committed and motivated to reinforce their academic performance and improve themselves by gaining the desired knowledge and skills. According to Kolb (2005), learning style, service learning, learning environment, mentoring programs, involve them in the learning process and encourage student-student interactions are the essential criteria that connected to the students' satisfaction and their academic performance. The above arguments lead to developing the following hypothesis:

H6: There is an association between overall students' satisfaction and academic performance.

The study uses the SERVQUAL model of Parasuraman and Berry (1988) that represent five key dimensions namely reliability, responsiveness, assurance and empathy, and tangibles to measure its effects on customer satisfaction. The following table shows a summary of Parasuraman and Berry attributes model (1988) to specific attributes in higher education.

Table 2: Service Quality Dimensions in higher education.

Service Quality Dimensions	Attributes based on Parasuraman and Berry Model (1988)	Specific Attributes in higher education
Tangibility	Physical facilities, equipment that is needed to provide services	Appropriate physical facilities/infrastructure, adequate and appropriate classrooms. Completeness of academic-support facilities & visually appealing environment, the appearance of the university based on complete and modern equipment & support services.
Reliability	Ability to deliver the desired service dependably, accurately, and consistently	Ease of contact/access to teachers and administrative staff. University willingness and attentiveness to help students and provide prompt service.
Responsiveness	willingness to provide prompt service and help customers	Clearly specified values and aims, consistency of practice, clearly specified policies/guidelines, fairly and firmly-enforced rules and regulations, adherence to course objectives; effective classroom management, trustworthiness, giving valid award, keeping promises, match to the goals; handling complaints and solving problems.
Assurance	Ability to convey trust and confidence to customers through the services provided	Ability of the university to perform service dependably and accurately, fairness in grading and courteous handling of student's problems.
Empathy	Ability to show personal care and attention to customers	Understanding student's needs, willingness to help, availability for guidance and advisory, giving personal attention, emotion, courtesy.

Source: Chui & bin Ahmad (2016), Evaluation of Service Quality of Private Higher Education.

Chapter 4
Data Analysis, Results, and Discussion

4.1. *Introduction*

This chapter outlines a framework of data analysis, findings, and discussion. Using Statistical Package for Social Sciences (SPSS), data analysis was undertaken in three steps: data preparation, data analysis, and reporting. After fieldwork, the data was prepared by checking the questionnaires, editing, coding, and transcribing. Practically, five statistical tests have been used to analyze the data and discover the results: statistical analysis, Frequencies analysis, Reliability analysis, Pearson correlation coefficient analysis, and Linear Regression analysis.

The research framework conducts a quantitative method to dissects the impacts of five key dimensions of service quality provided by the University of Minho on students' satisfaction, and find out the association between student's satisfaction and academic performance. More depth, the research adopted with Parasuraman's SERVQUAL dimensions, which includes tangibility, reliability, responsiveness, assurance, and empathy. The dependent variables are overall student satisfaction. The independent variable is service quality dimensions.

The SERVQUAL model is used to estimate students' expectations and perceptions regarding service quality provided at the university. The questionnaire contains section from A to F. The first section refers to the demographic variables (Gender, Age, study year and Degree). The remain sections are representing the five key service quality dimensions. Both expectations and perceptions are measured using a five-point scale from one (low expectation/ perceptions) to five (High expectation/perceptions). Perceptions based on the actual service provided while expectation based on the past experiences and information. Service quality scores are the difference between the perception and expectation scores (P-E). The quality score measures the service gap or the degree to which expectations meets or exceed perceptions. Parasuraman, Zeithaml, & Berry (1994), mentioned that service quality is estimated according to the following criteria: If the perceived service is greater than the expected service, it results in "QUALITY SURPRISE or EXCEPTIONAL QUALITY". If the customers' expectations match with the actual service performance, then it results in "SERVICE QUALITY or SATISFACTORY QUALITY". If the customers' expectations are unmet or unfulfilled or fall short, then it results in

"UNACCEPTABLE QUALITY" (Ali et al., 2016; Kundi et al., 2014; Malik, Danish, & Usman, 2010).

4.2.   Data Analysis Method

The study used the Statistical package for social science (SPSS) to analyze the data and testing the hypothesis.

1. Means and standard deviations to measure the service quality and overall student satisfaction.

2. Frequencies and valid percent for study sample distribution breakdown.

3. Reliability analysis to ensure the instrument reliability of Cronbach's alpha coefficient.

4. Pearson correlation coefficient to measure the strength of the relationship between variables.

5. Regression test to determine the effect of independent variables on dependent variables.

4.3.   Data Analysis

4.3.1. Demographic Variables.

Generally, the frequency is used for looking at detailed information in a category data set that describes the results. Categorical data is for variables such as gender, age. To find out the general background of the students at the University of Minho. The populations have asked about their Gender, Age, Degree, and Year of Study. In the tables below the results of the structured questionnaires are represented.

Gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	188	62.7	62.7	62.7
	Male	112	37.3	37.3	100.0
	Total	300	100.0	100.0	

Table 3: Demographic Variables (Gender)

Age		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-24 Years	251	83.7	83.7	83.7
	25-30 Years	36	12.0	12.0	95.7
	31-35 Years	3	1.0	1.0	96.7
	36-40 Years	7	2.3	2.3	99.0
	Above 40	3	1.0	1.0	100.0
	Total	300	100.0	100.0	

Table 4: Demographic Variables (Age)

Degree					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bachelor	204	68.0	68.0	68.0
	Master	96	32.0	32.0	100.0
	Total	300	100.0	100.0	

Table 5: Demographic Variables (Degree)

Year of Study					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	First Year	124	41.3	41.3	41.3
	Second Year	99	33.0	33.0	74.3
	Third Year	77	25.7	25.7	100.0
	Total	300	100.0	100.0	

Table 6: Demographic Variables (Year OF Study)

The survey revealed shows that majority of respondents were females (n=188 and the Valid Percent is 62.7%) while males reached (n=112, 37.3%) were males. This implies that most the participated of this study are females. Moreover, (n=251, 83.7%) of the respondents' aged between (18-24), followed by respondents with age between (25-30) years which accounted for (n= 36, 12%), (n=7, 2.3%) were between (36-40) years of age and (n=3, 1%) were between the age group (31-35) and above 40 years old. The study also found that most of the participated are bachelor students (n=204, 68%) while master students reached (n=96, 32%). In addition, (n=124, 41.3%) of the respondents are in the first year, (n=99, 33%) in the second year, and (n=77,25.7%) in the third year.

4.3.2. Reliability

Cronbach's alpha is mostly used to assess the internal consistency of a questionnaire (or survey) that is made up of multiple Likert-type scales and items. Cronbach's alpha reliability coefficient normally ranges between 0 and 1. The closer Cronbach's alpha coefficient is to 1.0 the greater the internal consistency of the items in the scale. Provide the following rules of thumb: "_ > .9 – Excellent, _ > .8 – Good, _ > .7 – Acceptable, _ > .6 – Questionable, _ > .5 – Poor, and _ < .5 – Unacceptable (Gliem & Gliem, 2003).

Reliability Statistics	
Cronbach's Alpha	N of Items
0.834	6

Table 7: Reliability (RELIABILITY STATISTICS)

Scale Statistics			
Mean	Variance	Std. Deviation	N of Items
5.2047	4.692	2.16599	6

Table 8: Reliability (Scale Statistics)

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Overall.S.S	1.1153	3.656	.514	.825
Tangibility	4.9839	3.614	.515	.825
Reliability	5.0467	3.668	.517	.825
Responsiveness	4.8989	3.030	.707	.786
Assurance	4.9780	3.104	.690	.790
Empathy	5.0007	3.124	.705	.787

Table 9: Reliability (Item-Total Statistics)

The corrected item-total correlations are the correlations between scores on each item and the total scale scores. Based on the table the correlation ranged between (0.514) of Overall students' satisfaction, (0.515) of tangibility, (0.517) of reliability, (0.690) of assurance, (0.705) of empathy, and (0.707) of Responsiveness. This implies that the scale is internally consistent reasonably. Cronbach's Alpha is the most the common statistic used to describe the internal consistency reliability of a set of items. A reliability analysis was carried out on the perceived task values scale comprising 6 items. Cronbach's alpha showed the questionnaire reached good reliability (α = 0.834), which was greater than the threshold value acceptable in social sciences i.e. .6. All the items appeared to be worthy of retention that Overall Students Satisfaction reached (0.825), Tangibility reached (0.825), Reliability reached (0.825), Responsiveness reached (0.786), Assurance reached (0.790), Empathy reached (0.787). This implies that questionnaires were reliable in obtaining the responses from the sample respondents, that none of the following items exceeds the Cronbach's alpha (0.834).

4.3.3. Correlations

Correlation is carried out to find the relationship between variables. The correlation coefficients span on a range of -1 to +1 where -1 represents perfect negative correlation and +1 representing perfect positive correlation. The correlation coefficient value should be within a certain range for

it to be considered valid and accurate, as such, it should not exceed 0.75, likewise, correlations are assumed problematic if the value reaches or exceeds beyond 0.8 (Hauke & Kossowski, 2011).

Correlations		Overall.S.S	GBA	Tangibility	Reliability	Responsiveness	Assurance	Empathy
Overall.S.S	Pearson Correlation	1	.280**	.387**	.210**	.450**	.402**	.496**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000
	N	300	300	300	300	300	300	300
GBA	Pearson Correlation	.280**	1	-.054	-.270**	-.238**	-.230**	-.219**
	Sig. (2-tailed)	.000		.351	.000	.000	.000	.000
	N	300	300	300	300	300	300	300
Tangibility	Pearson Correlation	.387**	-.054	1	.370**	.409**	.374**	.440**
	Sig. (2-tailed)	.000	.351		.000	.000	.000	.000
	N	300	300	300	300	300	300	300
Reliability	Pearson Correlation	.210**	-.270**	.370**	1	.458**	.466**	.446**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000
	N	300	300	300	300	300	300	300
Responsiveness	Pearson Correlation	.450**	-.238**	.409**	.458**	1	.661**	.586**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000
	N	300	300	300	300	300	300	300
Assurance	Pearson Correlation	.402**	-.230**	.374**	.466**	.661**	1	.600**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000
	N	300	300	300	300	300	300	300
Empathy	Pearson Correlation	.496**	-.219**	.440**	.446**	.586**	.600**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	300	300	300	300	300	300	300
**. Correlation is significant at the 0.01 level (2-tailed).								

Table 10: Pearson Correlation

From the survey, Karl Pearson correlation was conducted to assess the degree of association between the dependent and the independent variables. Comprehensively, all the variables have a significant association with Overall students' satisfaction. The study revealed a significant but

weak positive relationship between student's satisfaction and students' academic performance (r = 0.280, p-value < 0.05). Likewise, there is a weak but positive and significant relationship between students' satisfaction and the reliability dimension of service quality (r = 0.210, p-value < 0.05). Furtherance, there is a weak but positive and significant relationship between students' satisfaction and the tangibility dimension of service quality (r = 0.387, p-value < 0.05). Also, there is a moderate positive and significant relationship between students' satisfaction and the assurance dimension of service quality (r = 0.402, p-value < 0.05). The study again, reveals that there is there is a moderate positive and significant relationship between students' satisfaction and responsiveness dimension of service quality (r = 0.450, p-value < 0.05). Finally, there is a moderate positive and significant relationship between students' satisfaction and empathy dimension of service quality (r = -0.496, p-value < 0.05).

4.3.4. Regression

Simple linear regression is a statistical method that allows us to summarize and study relationships between two continuous (quantitative) variables: One variable, denoted x, is regarded as the predictor, explanatory, or independent variable. A standardized beta coefficient compares the strength of the effect of each individual independent variable to the dependent variable (this used to measure the impacts of service quality dimension on overall students' satisfaction). Unstandardized Coefficients that represent the amount by which dependent variable changes if we change the independent variable by one unit keeping other independent variables constant (this used to measure the association between satisfaction and their performance) (Faul, & Lang, 2009).

Test the impacts of service quality dimensions on overall students' satisfaction.

Model Summary[b]										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.564[a]	.318	.307	.35954	.318	27.472	5	294	.000	1.001
a. Predictors: (Constant), Empathy, Tangibility, Reliability, Responsiveness, Assurance										
b. Dependent Variable: Overall.S.S										

Table 11: Model Summary OF Linear Regression.

Regression table measures the amount of total variation of the dependent variable due to independent variables. From the model summary, the correlation value (r) is obtained 0.564, R square value as 0.318, and Adjusted R square value of 0.307. This implies that the independent variables (tangibility, reliability, responsiveness, assurance, and empathy) have 30.7% influence on overall student satisfaction. Also, looking at the Model Summary, a high autocorrelation can be identified and a very high F Change value of 27.472 can be seen from the regression facts, the regression model can be ruled out as significant. The Durbin Watson result shows 1.001 that there is no auto correlation between respondents chosen for this study.

ANOVAa					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	17.757	5	3.551	27.472	.000b
Residual	38.005	294	.129		
Total	55.762	299			
a. Dependent Variable: Overall.S.S					
b. Predictors: (Constant), Empathy, Tangibility, Reliability, Responsiveness, Assurance					

Table 12: Anova Analysis OF Linear Regression

The ANOVA represents the analysis of variance. From the ANOVA table, we observed that the overall model is significant (p-value < 0.05). This implies that the model is acceptable and fit to explain the influence of the independent variables (empathy, reliability, tangibility, responsiveness, assurance) on the dependent variable (satisfaction). The F-statistics was 27.472, means square was 3.551, the sum of squares was 17.757 and the degree of freedom (df) was 5. The analysis of variance illustrates that the overall model is significant (p-value < 0.05) this implies that the model is acceptable and shows the level of influence that the independents' variables exert on the dependent variable.

Tangibility.

Coefficientsa							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	4.007	.026		156.006	.000		
Tangibility	.373	.052	.387	7.249	.000	1.000	1.000
a. Dependent Variable: Overall.S.S							

Table 13: Coefficients Analysis OF Linear Regression (Tangibility)

The β coefficients table shows the effects of the independent variables (Tangibility) on the dependent variable (satisfaction). From the linear regression table, the coefficients beta value of the independent variable (Tangibility) is 0.387, t value is 7.249, and a significant level at 0.000. Which implies that independent variables bring 38.7% change in the dependent variable. Hence, Tangibility has a significant impact on students' satisfaction. Accept Hypothesis 1

Reliability.

Coefficientsᵃ							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	4.056	.026		155.675	.000		
Reliability	.213	.057	.210	3.705	.000	1.000	1.000
a. Dependent Variable: Overall.S.S							

Table 14: Coefficients Analysis OF Linear Regression (Reliability)

The β coefficients table shows the effects of the independent variables (Reliability) on the dependent variable (satisfaction). From the linear regression table, the coefficients beta value of the independent variable (Reliability) is 0.210, t value is 3.705, and a significant level at 0.000. Which implies that independent variables bring 21% change in the dependent variable. Hence, Reliability has a significant impact on students' satisfaction. Accept Hypothesis 2.

Responsiveness.

Coefficientsᵃ							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	3.982	.026		156.010	.000		
Responsiveness	.352	.041	.450	8.687	.000	1.000	1.000
a. Dependent Variable: Overall.S.S							

Table 15: Coefficients Analysis OF Linear Regression (Responsiveness)

The β coefficients table shows the effects of the independent variables (Responsiveness) on the dependent variable (satisfaction). From the linear regression table, the coefficients beta value of the independent variable (Responsiveness) is 0.450, t value is 8.687, and a significant level at 0.000. Which implies that independent variables bring 45% change in the dependent variable. Hence, Responsiveness has a significant impact on students' satisfaction. Accept Hypothesis 3.

Assurance.

Coefficients[a]							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	4.016	.025		161.647	.000		
Assurance	.324	.043	.402	7.576	.000	1.000	1.000
a. Dependent Variable: Overall.S.S							

Table 16: Coefficients Analysis OF Linear Regression (Assurance)

The β coefficients table shows the effects of the independent variables (Assurance) on the dependent variable (satisfaction). From the linear regression table, the coefficients beta value of the independent variable (Assurance) is 0.402, t value is 7.567, and a significant level at 0.000. Which implies that independent variables bring 40.2% change in the dependent variable. Hence, Assurance has a significant impact on students' satisfaction. Accept Hypothesis 4.

Empathy.

Coefficients[a]							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	4.005	.023		171.897	.000		
Empathy	.411	.042	.496	9.852	.000	1.000	1.000
a. Dependent Variable: Overall.S.S							

Table 17: Coefficients Analysis OF Linear Regression (Empathy)

The β coefficients table shows the effects of the independent variables (Empathy) on the dependent variable (satisfaction). From the linear regression table, the coefficients beta value of the independent variable (Empathy) is 0.496, t value is 9.852, and a significant level at 0.000. Which implies that independent variables bring 49.6% change in the dependent variable. Hence, Empathy has a significant impact on students' satisfaction. Accept Hypothesis 5.

Investigate the relationship between satisfaction and academic performance.

Model Summary[b]									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.280[a]	.087	.075	.701	.078	25.288	1	298	.000
a. Predictors: (Constant), Overall.S.S.									
b. Dependent Variable: GBA									

Table 18: Model Summary OF Linear Regression (O.S.S &. GPA)

Regression table measures the amount of total variation of the dependent variable due to independent variables. From the model summary, the correlation value (r) is obtained 0.280, R square value as 0.087. This implies that the independent variable (Overall Students satisfaction) has 8.7 % of variation on students' academic performance. Also, looking at the Model Summary, a high autocorrelation can be identified and a very high F Change value of 25.288 can be seen from the regression facts, the regression model can be ruled out as significant.

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.431	1	12.431	25.288	.000[b]
	Residual	146.486	298	.492		
	Total	158.917	299			
a. Dependent Variable: GBA						
b. Predictors: (Constant), Overall.S.S						

Table 19: Anova Analysis OF Linear Regression (O.S.S &. GPA)

The ANOVA represents the analysis of variance. From the ANOVA table, we observed that the overall model is significant (p-value < 0.05). This implies that the model is acceptable and fit to explain the influence of the independent variables (Overall Students Satisfaction) on the dependent variable (Students' Academic Performance). The F-statistics was 25.288, means square was 12.431, the sum of squares was 12.431 and the degree of freedom (df) was 1. The analysis of variance illustrates that the overall model is significant (p-value < 0.05) this implies that the model is acceptable and shows the level of influence that the independents' variables exert on the dependent variable.

Coefficients[a]							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	1.953	.386		5.057	.000	1.193	2.712
Overall.S.S	.472	.094	.280	5.029	.000	.287	.657
a. Dependent Variable: GBA							

Table 20: Coefficient Analysis OF Linear Regression (O.S.S &. GPA)

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon \longrightarrow Y = 1.953 + 0.472$$

The β coefficients table above shows the effects of the independent variables (Overall Students Satisfaction) on the dependent variable (Students' Academic Performance). From the linear regression above it is established that taking the independent variable (Overall Students Satisfaction) constants at zero; Students' Academic Performance will be 1.953. Moreover, taking the independent factors constant at zero; a unit change in Overall Students Satisfaction will bring 0.472 (47.2%) change in Students' Academic Performance. The explanatory variable was significant. Hence, the hypothesis of the study is accepted. H6 there is significant relationship between overall student satisfaction and Students' Academic Performance.

4.4.   Results summary

The above tables and analysis represent the results of this study. The research has used the Frequencies and Valid Percentage for this study sample distribution breakdown, which finds that most of the participants are females (62% of total respondents'), (83.7% of the respondents') aged between 18-24, (68%) are bachelor students, (41.3%) in the first year, and (33%) are in the second year. Further, the research has applied the Cronbach's alpha coefficient to assess the internal consistency reliability of a questionnaire, which showed the questionnaire reached good reliability (α = 0.834), which was greater than the threshold value accepted in social sciences. By applying the Correlation analysis to assess the connection between the variables, the analysis shows a significant relationship between them (p-value < 0.05). This implies that the improvement of the educational service quality may potentially increase the students' satisfaction. Lastly, was applied the simple linear regression to test the research hypothesis. The linear regression analysis shows that the *empathy* has the highest significant and positive impact on overall students' satisfaction, its value percent reached almost 50 percent (49.6%). The same applies to the *responsiveness,*

which brings 45%. Moreover, a highly significant and positive impact of *assurance* was identified 40.2%, while finding a mediate significant and positive impact of *tangibility* on overall students' satisfaction which reached 38.7%. Also, it shows a weakness a significant and positive impact of *reliability* on overall students' satisfaction was found (21%). Finally, the analysis shows a positive and significant relationship between overall students' satisfaction and their academic performance, which reached 47.2%.

4.5. *Discussion*

The theoretical framework of this study mentioned that service quality consists of the customer's (i.e. student) judgment on the organization's performance and its services. Furthermore, customers should be the focus of service quality dimensions rather than the management or the academic staff. The reasoning behind this is that, the students are the main customers of higher education institutions and this implies that they are the primary beneficiaries of the educational services. On other hand, according to Matthews (2018), students should be treated as important stakeholders in higher education institutions. It is therefore important to consider students as customers influence the quality of learning in higher education. For instance, when lecturers think of students as customers, it potentially influences how they teach. Moreover, the partnership should be based on mutual respect, reciprocity, and shared responsibility between students and academics staff. It is worth mentioning that, the partnership in higher education has been defined as a cooperative, mutual process through which all the participants have the opportunity to contribute in a diverse but equal manner, influence and impact curricular or pedagogical conceptualization, decision-making, implementation, investigation, or analysis (Matthews, 2018). According to Bryson (2016), dealing with students as partners has the potential to help bring about social and educational transformation, as long as critical perspective regarding the ways the concept is adopted and used, is maintained. Having a "critical attitude" is essentially related to the partnership concept, which implies that it is not an easy or comfortable concept or process to put into practice. Working with a partnership approach heightens an awareness of conflicting priorities and tensions between the different perspectives and motivations of those involved at individual and institutional levels. The different positions of students and academic staff within the higher education institution structures lead to tensions about differentials in power, reward and recognition of participation, (professional) identity, and responsibility and accountability for partnership work. The desire for change will also vary among individuals, and resistance to change can be

accentuated when differences between partners are experienced as a source of conflict rather than a meeting point and the beginning of a learning process (Bryson, 2016). Therefore, considering students as customers in higher education could represent a compromise between the students and academic staff, that students have all the rights to demand the university to provide a satisfactory service that meets their expectation, which could in somehow do not conflict with the essential objectives, position and priorities of the academic staff and higher education institution.

Nair & Ragavan (2016) investigate the effect of higher education service quality on student satisfaction in Malaysian public universities. The study found that the five dimensions of service quality impacts on overall students' satisfaction. Likewise, Malik et al., (2010) analyze the impact of different quality services on student satisfaction in higher educational institutes in Punjab province of Pakistan. The results show that the service quality dimensions of Tangibility, Assurance, Reliability and Empathy have a significant positive impact on overall students' satisfaction. On other hand, Hanaysha & Hilman (2012) assess service quality provided at the universities in the Northern region of Malaysia to evaluate students' satisfaction. The study shows that there is a strong relationship between the services quality dimensions (tangibility, responsiveness, reliability, assurance and empathy) and student satisfaction. Moreover, the study found that responsiveness has the strongest relationship with satisfaction, a moderate relationship between reliability and satisfaction, a moderate relationship between empathy and student satisfaction, a weak relationship between tangibility, assurance and satisfaction. These studies adopted the same approach (SERVQUAL GAP MODEL) to investigate the impacts/relationship between service quality and satisfaction, which is followed by this research, and the most important that all have similar results. Therefore, service quality dimensions could be considered as a direct indicator of students' satisfaction. Further, higher education institutions need to be aware of the service quality dimensions that influence their students' satisfaction. Students feedback also an important component in assessing the service quality and students' satisfaction, that play a major role in identifying the key areas of student interest.

Douglas, & Barnes (2006) measure student satisfaction based on quality assurance at Liverpool University in the faculty of business and law. The study found that teaching and learning are the most determinants of student satisfaction, while the least important were those associated with the physical facilities. Furthermore, Manik & Sidharta (2017) study the impacts of academic service

quality on students' satisfaction on Indonesian universities. The study found that each of the service quality dimension (tangible, reliability, responsiveness, and empathy) have a significate impact on students' satisfaction except assurance. Again, Khan, & Akhtar (2014) investigate the impacts of service quality on customer satisfaction at the Gomal-University in Pakistan. The study found a positive significant relationship between the variables. Khan & Nawaz (2011), study the student's perspective of service quality in higher learning institutions at the University of Punjab in Pakistan. The study shows a significant positive relationship between the service quality dimensions and students' satisfaction (Assurance, Responsiveness Empathy and Reliability) with satisfaction, while there is no a significant relationship between tangibility and students' satisfaction. The results of this study have shown the high impacts of empathy, responsiveness, assurance on students' satisfaction, and from a weak to moderate impacts of reliability and tangibility on students' satisfaction. Therefore, service quality is considered as a multidimensional construct and there is no consensus among the authors about the dimensions or model that should be used to evaluate the service quality in higher education institutions. This implies that service quality dimensions and satisfaction vary from one educational sector to another. The students may tolerate deficiencies of the physical facilities if he/she received acceptable educational level and vice versa.

Saif (2014) studied the effects of service quality on students' satisfaction at the administrative and financial science faculty at Philadelphia University in Amman, Jordan. The study shows that the application of a medium level of quality standards, leads to medium levels of satisfaction among students, indicating that upgrading and developing educational processes and the satisfaction of students require more attention and better implementation of service quality standards. On other hand, Kara & Kalai (2016) study the educational service quality and students' satisfaction in public universities in Kenya. The study shows that the availability of internet services was directly but negatively related to students' satisfaction. Quality of library service environment, lecturer quality and quality of instructional practices were directly but insignificantly related to students' satisfaction. In this review, we could state that satisfaction varies from one person to another because it is the utility. In fact, it is often difficult to satisfy everybody or to determine satisfaction among a large group of individuals. That satisfaction reflects the customer's feelings about many encounters and experiences with service while service quality may be affected by perceptions value (benefit relative to cost) or by the experiences of others.

In terms of the relationship between overall students' satisfaction and their academic performance. This study finds a strong positive and significant relationship between both variables, which implies that increasing student satisfaction most probably leads to high level of performance/achievement. Dhaqane & Afrah (2016), investigate the relationship between satisfaction and students' satisfaction and their academic performance in Benadir University. The study found a strong relationship between satisfaction and academic achievements. That satisfaction promotes both academic achievement and the retention of students within the organization. Likewise, Martirosyan & Wanjohi (2014) study student satisfaction and academic performance in Armenian Higher Education. The study found a significant relationship between student satisfaction and academic performance. Armenian students who reported better satisfaction with their overall college experience, had higher grade point averages than those with low satisfaction. Similar by El-Hilali & Hussein (2015), examines the factors that influence students' satisfaction and their achievement and absorption capacity in a Kuwaiti private college. The results show that, the academic program and teaching methods influence students' satisfaction. While achievement influenced by students' participation, satisfaction, teaching methods and programs. Therefore, it is worth mentioning the importance of psychosocial support for the student to facilitate and reinforce academic integration, including service learning, learning communities, mentoring programs, and seminars. A good relationship between the student and faculty improves students' academic performance in addition to their ways of thinking, problem-solving skills, and career objectives. While the student probably will leave the college/department if they do not find any opportunities for social and academic integration. In addition, student satisfaction can be determined by his level of pleasure as well as the effectiveness of the education that the student experiences. In this regard, satisfaction can be considered as the act of satisfying a need or desire in achieving a planned goal.

Chapter 5
Conclusion, Limitation, Recommendation,
and Future research
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1. **Introduction**.

The aim of this chapter is to assess if the research has answered the proposed questions, met the objective, and if the study has contributions. Thus, the chapter begins with the conclusion, then to the implication, followed by limitations. Finally, suggestions for future research end the chapter.

2. **Conclusion**

The present study investigates the impact of service quality on students' satisfaction in higher education and, in addition, to finding out the association between overall students' satisfaction and their academic performance. The essence of students' satisfaction are those aspects that relate to teaching quality, teaching methods, course content, trainer's performance, learning environment, services delivery, and support facilities. Students' want a professional lecturer that is able to give understandable information favorable to a heterogeneous audience, bear responsibility during the educational process and the ways of dealing with problems and find appropriate solutions. The psychosocial support to facilitate and reinforce academic integration. The tangible facilities like the class setup, digital labs and libraries, quality, and reliability of the infrastructure and other assured facilities do contribute in creating the image of excellence. Furthermore, service quality is customers' assessment of the organization's performance and its amenities and, the fundamental responsibility in assuring service quality is to provide services that satisfies customers' needs.

This study proposed six hypotheses to achieve its objectives, where all have been confirmed. The correlation analysis finds that the independent variables, which are service quality dimensions (Tangibility, Reliability, Responsiveness, Assurance, and Empathy), and students' academic performance were significantly related to satisfaction. This implies that improving the educational service quality, may potentially increase students' satisfaction, which should be the priority of higher education institutions, as they are increasingly competing students. The students will be satisfied and motivated to achieve their studying objective, if the educational institution provides the right conditions to facilitate learning, which should include a proper infrastructure that is established based on academic development standards. If students' have a positive perception

about their institutions' quality and integrated learning environment, facilitated intellectual progress, their interest in the organization will be retained.

The structural equation modeling results have shown that service quality dimensions have a significant and positive impact on the overall students' satisfaction. The overall model is a sensible fit showing that the tangibility, assurance, reliability, and empathy have a strong and significant impact on overall students' satisfaction from an institution. It is important to verify here that from the regression analysis, three dimensions in service quality empathy, responsiveness, and assurance are the most critical factor in explaining overall students' satisfaction. This means that improving the service quality in terms of empathy, responsiveness, and assurance essentially leads to a better overall satisfaction and improve their students' evaluation of the service provided. In addition, the students appreciate the university's effort of providing good facilities, infrastructure and the willingness to help them and provide prompt service. The data analysis has shown that customer satisfaction is strongly associated with perceived service quality and perceived value. If the administration wants to reinforce customers' satisfaction evaluations, it could be more helpful to influence positively customers' perceptions of the service performance rather than changing their expectations. The university could build trust with students by treating students in a harmonious and equitable manner, meeting student's expectations, and handling student complaints in a caring manner that institutional attributes have a strong impact on student attitudes and their satisfaction with the college experience. In addition, students' attitudes are associated with modern learning technologies and satisfaction. Professors should understand the students' attitudes because it reflects students' subsequent behavior. Therefore, if the student has a positive or close relationship with one faculty member, he or she is more likely to feel satisfied with their college life.

Lastly, the study investigated the relationship between overall students' satisfaction and their academic performance because satisfaction is considered as a key factor in academic performance. Both satisfaction and academic performance depend on the academic and non-academic aspects of higher education. Satisfaction was measured based on the expectation and perception of the service quality provided. The measurement of academic performance was based on the (GPA) grade point average is a number representing the average value of the accumulated final grades earned in courses over time. The study found a highly significant relationship between overall

students' satisfaction and their academic performance, this means that providing a satisfactory service helps students to have a better academic performance. The data analysis showed that satisfaction promotes academic performance and improved outcomes, the research agenda, and discourse should turn to the capacity of administrators to promote improved student satisfaction. It is therefore critical that higher educational institutions begin gauging student satisfaction in some form. This may prompt them to utilize systematic feedback from students on services and programs offered, with the goal of improving student educational outcomes. That satisfied students are committed and motivated to reinforce their academic performance and improve themselves by gaining the desired knowledge and skills after graduation.

3. *Limitations*

The study used a convenience sample. One benefit of this kind of sampling technique is that it can provide the springboard for future researchers or allow links to be forged with the only limitation being that the study cannot be generalized. Time and money have always been the main constraints in almost all research studies. Since this is an academic research with a limited time frame, only students in the school of management and business were targeted due to the time I had available to conduct the research. If I had more time I would have preferred to target as many schools as possible to see how this holds with them and to draw a better conclusion and generalization. Finally, satisfactions have measured based on perceived value of students, could be better to have direct questions in the survey about the satisfaction.

4. *Implications for Practice*

Administrators of the higher education institutions should pay increased attention to improve their educational service in the light of students' perception and the growing importance of service quality in the educational process. They should react to the necessities, standards, and various requirements that students need, especially empathy, responsiveness, and assurance. The services should be carried out promptly according to the students' needs. In order to achieve maximum students' satisfaction, the top priority of the higher education institutions should be improving the students' perception of service quality dimensions or at least meet their expectations. The administrators could improve the service quality of the university by offering a good class equipment as overhead projector, audio-visual facilities, etc. Providing a library that has an extensive variety available (e.g. books, periodicals, etc.) and a quiet place to study, as well as good

facilities on campus (e.g. parking, café, etc.), are essential. In addition, the university should be well prepared and organized by increasing the willingness and incentivizing of lecturers and support staff to help the students solving efficiently their problems, provide convenient office hours, as well as a general understanding of people belonging to other racial and ethnic backgrounds. Furthermore, providing relevant information when required, offering useful course materials (e.g. handouts, textbooks, etc.), as well as being able to contact the academic staff with minimum difficulty, and dealing in a sympathetic and reassuring way when helping students, can lead to high service quality. On the other hand, the lecturers should have extensive knowledge of their subjects, a good teaching ability, and wide skills to deal with different student's experiences since it is from them (lecturers and academic staff) that comes the motivation and willingness of the students to learn and become full responsible and active members of our society. Lastly, the high orientation towards academic achievement, and effective college environment, as well as the clarity of the course objectives, the relevance of curriculum and the cross-disciplinary knowledge are a major part of the access to the full satisfaction of the students.

5. *Future research*

Further research is required to consider the perspectives of other higher education stakeholders and explore further some of the highlighted issues. Another possibility would be to collect data from different higher education institutions in different regions of the country to have a better view of the service quality on Portuguese higher education and to have better basis for comparison of the service quality performance.

Also, investigating the impact of demographic variables on student satisfaction such as ethnicity, religion, living area, difference between international and domestic students, etc. could be very interesting and relevant. Finally, investigating the impacts of external factors such as word-of-mouth and past-experience on the overall student satisfaction could be an important line of research to pursue.

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Appendix:

<u>A SURVEY OF UNIVERSITY STUDENTS' SATISFACTION AND ACADEMIC PERFORMANCE AT</u>
<u>SCHOOL OF ECONOMICS AND MANAGEMENT</u>

The questionnaire aims to evaluate the effects of service quality on students' satisfaction based on SERVQUAL model, which is the gap between your Initial expectation and Current opinion of the service quality. Please answer the following questions.

What is your gender?	O Male O Female
What is your age?	O 18/24 O 25/30 O 31/35 O 36/40 O 40+
What is your degree?	O Bachelor O Master O PhD
What is your area?	O Accounting O Economics O International Business O International Relations O Management O Marketing O Political Science O Public Administration O Finance O Business Administration
What is your year of study?	O First year O Second year O Third year.

This questionnaire contains section from A to F. Please evaluate each question twice. Below is a series of statements that pertain t your overall university experiences at Minho University. On a scale of 1 (low expectation/reality) to 5 (High expectation/reality), please indicate your responses.

Section A: The university physical facilities, equipment, and visual materials.

	Initial expectation	Current opinion
Class have quality equipment (e.g. overhead projector, boards audio-visual facilities, etc.).	1 2 3 4 5	1 2 3 4 5
The library has an extensive collection available (e.g. books, periodicals, etc.).	1 2 3 4 5	1 2 3 4 5
The library is a quiet place to study	1 2 3 4 5	1 2 3 4 5
Overall, the quality of the facilities on campus (e.g. parking, café, etc.).	1 2 3 4 5	1 2 3 4 5

Section B: The ability of academic staff to perform promised services dependably and accurately.

	Initial expectation	Current opinion
Classes are well prepared and organized	1 2 3 4 5	1 2 3 4 5

Lecturers and support staff are willing to help the students.	1	2	3	4	5	1	2	3	4	5
Administration staff solved my problems at the expected time.	1	2	3	4	5	1	2	3	4	5
Lecturers provide convenient office hours	1	2	3	4	5	1	2	3	4	5
Academic staff understands people of other racial and ethnic background.	1	2	3	4	5	1	2	3	4	5

Section C: The willingness of the university members to help students and provide prompt service.

	Initial expectation					Current opinion				
Academic staff provides relevant information when required.	1	2	3	4	5	1	2	3	4	5
The course materials (e.g. handouts, textbooks, etc.) are useful.	1	2	3	4	5	1	2	3	4	5
Administration staff are sympathetic and reassuring when helping students	1	2	3	4	5	1	2	3	4	5
I can contact academic staff with minimum difficult.	1	2	3	4	5	1	2	3	4	5

Section D: Making the effort to know students and their needs.

	Initial expectation					Current opinion				
Admin and academic staff understand the specific needs of their students.	1	2	3	4	5	1	2	3	4	5
University provides guidance and information on career opportunities.	1	2	3	4	5	1	2	3	4	5
The course materials correspond to students' interests.	1	2	3	4	5	1	2	3	4	5
Lecturers and support staff are concerned about student welfare and interests.	1	2	3	4	5	1	2	3	4	5

Section E: Possession of required skill and knowledge to perform a service.

	Initial expectation					Current opinion				
Lecturers have extensive knowledge of their subjects.	1	2	3	4	5	1	2	3	4	5

	1	2	3	4	5		1	2	3	4	5
Lecturers have good teaching ability.	1	2	3	4	5		1	2	3	4	5
The behavior of Lecturers and employees motivate students' in their studies.	1	2	3	4	5		1	2	3	4	5
Academic teachers have wide skills to deal with different student's experiences.	1	2	3	4	5		1	2	3	4	5
The quality of the interactions between the academic staff and the students.	1	2	3	4	5		1	2	3	4	5

Section F: This question is very important that helps us to evaluate your academic performance.

Please indicate your Grade Point Average (GPA) of your last years.

10	11	12	13	14	15	16	17	18	19	20

Thank you so much for your help and supports

**Questionário de satisfação do s estudantes e da performance académica
na escola de economia e gestão**

Este questionário visa avaliar os efeitos da qualidade do serviço sobre a satisfação dos alunos, com base no modelo SERVQUAL, que é o fosso entre sua expectativa inicial e a opinião atual da qualidade do serviço. Por favor responda as seguintes questões.

Qual é o teu sexo?	O Feminino O Masculino
Qual é a tua faixa etária?	O 18/24 O 25/30 O 31/35 O 36/40 O 40+
Qual o Grau academico que estas a estudar?	O Licenciatura O Mestrado O Doutoramento
Qual é a tua área?	O Contabilidade O Economia O Negócios internacionais O Gestão O Relações internacionais O Finanças O Ciências Politicas O Administração Publica O Negócios administrativos O Marketing
Em que ano estudas?	O Primeiro Ano O Segundo Ano O Terceiro Ano .

Este questionário contém uma seção de A para F. Por favor, avalie cada pergunta duas vezes. Abaixo está uma série de declarações que pertencem a suas experiências universitárias em geral na Universidade de Minho. Em uma escala de 1 (baixa expectativa / realidade) a 5 (Alta expectativa / realidade), indique as suas respostas.

Secção A: A Universidade, as instalações, equipamentos e materiais visuais.

	Expectativas					Opinião atual				
As salas possuem equipamentos de qualidade (como por exemplo: retroprojetores, placas audiovisuais, etc.)	1	2	3	4	5	1	2	3	4	5
A biblioteca possui uma vasta coleção disponível (como por exemplo: livros, periódicos, etc.)	1	2	3	4	5	1	2	3	4	5
A biblioteca é um lugar tranquilo para estudar.	1	2	3	4	5	1	2	3	4	5
A qualidade das instalações no campus no geral (por exemplo, estacionamento, café, etc.)	1	2	3	4	5	1	2	3	4	5

Secção B: A capacidade do pessoal académico em realizar os serviços garantidos de forma precisa e confiável.

	Expectativas					Opinião atual				
As aulas estão bem preparadas e organizadas.	1	2	3	4	5	1	2	3	4	5
Os professores e auxiliares estão dispostos a ajudar os alunos.	1	2	3	4	5	1	2	3	4	5
A equipa da administração conseguiu resolver os meus problemas no tempo esperado.	1	2	3	4	5	1	2	3	4	5
Os professores oferecem horários de gabinete convenientes para os alunos.	1	2	3	4	5	1	2	3	4	5
O *staff* académico entende e respeita pessoas de outras origens raciais e étnicas.	1	2	3	4	5	1	2	3	4	5

Secção C: A vontade dos membros da universidade para ajudar os alunos e providenciar um serviço rápido.

	Expectativas					Opinião atual				
O pessoal académico responde com informação relevante quando inquirido.	1	2	3	4	5	1	2	3	4	5

	Expectativas					Opinião atual				
Os materiais usados no curso (por exemplo: resumos, livros, etc.) são uteis.	1	2	3	4	5	1	2	3	4	5
A equipa da administração é simpática e reconfortante quando ajuda os alunos.	1	2	3	4	5	1	2	3	4	5
Consigo entrar em contacto com o pessoal académico sem a mínima dificuldade.	1	2	3	4	5	1	2	3	4	5

Secção D: Fazer um esforço para conhecer os estudantes e as suas necessidades.

	Expectativas					Opinião atual				
O pessoal académico e administrativo compreende as necessidades doa alunos.	1	2	3	4	5	1	2	3	4	5
A universidade oferece orientação e informação sobre oportunidades de carreiras.	1	2	3	4	5	1	2	3	4	5
Os materiais do curso correspondem aos interesses dos alunos.	1	2	3	4	5	1	2	3	4	5
Os professores e auxiliares estão preocupados com o bem-estar e interesse dos alunos.	1	2	3	4	5	1	2	3	4	5

Secção E: Posse de habilitações e conhecimentos para realizar o serviço.

	Expectativas					Opinião atual				
Os professores têm um amplo conhecimento das suas matérias.	1	2	3	4	5	1	2	3	4	5
Os professores têm uma boa capacidade para ensinar.	1	2	3	4	5	1	2	3	4	5
O comportamento dos professores e dos auxiliares motivam os alunos nos seus estudos.	1	2	3	4	5	1	2	3	4	5
Os professores académicos têm capacidades para lidar com as experiencias de diferentes alunos.	1	2	3	4	5	1	2	3	4	5
A qualidade da interação entre o pessoal académico e os alunos.	1	2	3	4	5	1	2	3	4	5

Secção F: Esta questão é muito importante e ajuda a avaliar a tua performance académica.

Por favor indica a tua média nos últimos anos.

10	11	12	13	14	15	16	17	18	19	20

Obrigada pela contribuição.