

QUALITY OF SERVICE CULTURE AND OVERALL SATISFACTION
FOR INTERNATIONAL STUDENTS
AT THE UNIVERSITY OF SASKATCHEWAN

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By

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Abstract

The purpose of this research was to explore the extent to which service quality culture factors impact overall international students' satisfaction from students' viewpoints and to ascertain levels of perceived quality culture indicators and overall satisfaction. The researcher reviewed previous research in terms of service culture, service quality and satisfaction, especially in post-secondary education. The study used a quantitative research framework, including a survey with 61 statements, five-point Likert Scale, six demographic questions and open-end questions. International students at the University of Saskatchewan were invited to respond to this survey. The findings indicate that all the dimensions of service culture have a positive correlation with the Overall Satisfaction of international students. Moreover, first-year international students tended to be more satisfied with the services than those in upper years. There were no statistically significant differences among service cultures and overall satisfaction based on the demographic variables. This study provides further understandings, insights and direction for enhancing and sustaining high-quality services to international students. The findings also indicated that the factors that impacted most on overall satisfaction of international students were: Support Staff, Academic, Safety, Finance and the demographic variable – "First Year." This study contributes to the efforts of universities as they seek to become more competitive in their recruitment efforts and in their delivery of quality services to international students.

Keywords: service culture, service quality, SERVQUAL model, international student, satisfaction

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Chapter 1

Introduction

The international students are the vital sources of revenue and human capital to the economy of the host country (Global Affairs Canada, 2019). Nowadays, more and more people can afford to study abroad. Hence the sector of educational export has become increasingly competitive. “The traditional competitors (e.g. Australia, France, Germany, New Zealand, the United Kingdom, the United States) and emerging ones (e.g. China, Malaysia)” are competing to attract more international students (Global Affairs Canada, 2019, p.3). Besides, Global Affairs Canada (2019) indicated that the students nowadays have more options in pursuing their education. They can study in their own countries (China, Singapore, Japan) because of the increase of the rank of domestic universities, or they can choose the high-rank universities in Asia or Europe which offer the programs in English.

The report of the Canadian Bureau for International Education (CBIE) in 2018 showed that US and UK are the top hosts of all international students, China is the top three, whereas Canada is the world’s fourth top study destination (CBIE, 2018). The main competitors of Canada were Australia and France. The market becomes more competitive than ever because international students contribute a considerable part to the prosperity of the host country. The report of Global Affair Canada (2018) indicated that the international students in post-secondary education added US\$ 30,5 billion and US\$ 32.8 billion in 2015 and 2016, respectively, to the U.S economy. While the international students contributed £10.8 billion to the U.K.’s export in the 2015-2016 academic year. In Australia, it is reported that the international students contributed AU\$ 21.8 billion in the Australian economy in 2016.

However, in this competition, Redeen (2018) said that “perhaps no country has been taking more advantage than Canada, where politicians and university leaders alike have seized on the opportunity to brand the country as a proudly multicultural, welcoming destination.” (np). According to the survey of CBIE (2018), the international students who studied in Canada stated that they choose the host country based on “a variety of factors including academic reputation, flexibility and duration of programs, the international prestige of a qualification from a particular country/institution, admission policies, permanent migration and employment opportunities, cultural/linguistic links and financial considerations.” (p.5). The top three reasons that international students chose to study in Canada were: the reputation of the Canadian education system, the tolerant and non-discrimination society, and safety. Canada also has a weaker currency than the currency of the UK, US and Europe that keeps the price of tuition lower (Redeen, 2018).

Thanks to the above advantages, the number of international students in Canadian post-secondary institutions has been on the rise for two decades, “with their numbers increasing at a higher rate than that of Canadian students.” (Statistics Canada, 2018, p.1). The total number of international students in Canada increased by 68% from 2014 to 2018. In 2018, there were more than 721,000 international students at all levels studied in Canada that “surpassing a national target of hosting 450,000 international students by 2022 five years early” (Redeen, 2018, np). Besides the two critical markets China and India, Canada is expanding in the priority countries which are Brazil, Colombia, France, Indonesia, Mexico, Morocco, the Philippines, Thailand, Turkey, Ukraine and Vietnam (Global Affairs Canada, 2019). Experts predicted that the numbers of international students would increase in Canada; however, the metro arear will be chosen more than other areas (Reene, 2018.) According to Global Affairs Canada (2019), the

two top provinces were Ontario and British Columbia with 31,591 and 155,455 international students respectively. In the Canadian Prairie Provinces, Alberta was the top with 35,040 international students, Manitoba had 21,075 international students, whereas Saskatchewan had only 10,525 international students.

These students contribute to the Canadian economy (around \$21.6 billion in tuition, accommodation, and discretionary spending, in 2018 and supporting close to 170,000 jobs in communities across the country in 2016. (Global Affair Canada, 2019). “Educational expenditures by international students have a greater impact on Canada’s economy than exports of auto parts, lumber or aircraft.” (Global Affair Canada, 2019, p.2). The international students also foster successful commercial and political relations among their countries with Canada. According to a recent Canadian government report, released in 2012, Canada will suffer a shortage of skilled labour in the next decade as the result of an ageing population (Global Affair Canada, 2012). Therefore, the Canadian government has developed strategies to recruit talent workforces from the international workforces to meet the demand of occupations: managerial, professional, technical and skilled trades, as well as highly accomplished researchers and scientists and build a world-class knowledge economy. One vital source for Canadian human resources is international students; these students are highly qualified and have Canada-based experiences. “New immigration policies and programs have been specifically created to make it easier for international students to study, work and become permanent residents in Canada, especially graduate students” (Gopal, 2014, p. 2). However, to support international students during their periods of study and after graduation, universities in Canada are wise to focus on quality academic services and appropriate levels of career orientation and related services.

Therefore, the high demand of international students for studying abroad leads to the circumstance related to quality service in Canadian higher education institutions but also in the institutions around the world as they all compete to attract international students. Regardless of legal and regulatory elements and considerations, the market appears to become more and more competitive: “Competition in the contemporary service business is intensifying, and it is now increasingly important for a service agency to treat service quality as a factor of marketing competitiveness” (Grubor, Salai & Lekovic, 2009, p. 273). More and more universities around the world have marketing strategies and tools to compete with others and to recruit international students (Altbach, 1998; Arambewela & Hall, 2009). However, there has been substantial growth in the service marketing literature, with service quality becoming a significant issue (Zeithaml & Bitner, 2002). Therefore, service quality should be viewed as a distinctive approach to services competition between and among universities. Competitive service strategies should be based on service quality, considering variance in servicing customer's needs, and purchasing behaviour. The institutions need to focus their efforts on developing and improving service quality and quality hosting cultures to satisfy the students they seek to serve.

Previously, the education sector was viewed merely as a non-commercial, non-profit humanitarian training activity. Due to the influence of external factors and especially the impact of the market economy, education is now regarded as "educational services" whereby customers (students, parents) invest and choose their service provider(s); those considered most suitable and of the highest quality. According to the institutional theory, “universities seek to preserve or enhance their legitimacy by conforming to environmental pressure and are driven to adopt governance structures that fit with societal demands and expectations” (Austin & Jones, 2016, p. 29). Hence, to exist and thrive, the service provider (the university or the study program) must

focus on the quality of service to improve student satisfaction. Information about student satisfaction will help the program make timely adjustments to improve the quality of direct and specific service as well as to foster a culture of quality service.

Based on these concepts, service quality and satisfaction of customers (students) will be reviewed in the higher education context (Grönroos, 1984; Parasuraman, Zeithaml & Berry, 1985). Kotler, Armstrong, Saunders and Wong (2001) have mentioned that any business looking for success in today's marketplace must be customer-centred. It must deliver superior value to its target customers. They also added that companies must become adept at building customer relationships, not just building products and services.

Alridge and Rowley (2001) stated that expectations that cannot be accomplished by the institutions are the most fundamental of factors for students' resignation from particular institutions or programs. The study of Kanji, Tambi, and Wallace (1999) pointed to some insights into the actual circumstance of Malaysia's Higher Education Institutions. Most of the higher education institutions gave exceptional attention to meeting students' expectations; this is similar to a business organization, but yet there was a lack of customer awareness amongst the staff, and this may be a common shortcoming for many higher education institutions. In this contentious market, satisfaction with services might make the distinction (Zeithaml, Berry & Parasuraman, 1996).

This study attempted to investigate the impacts on students' satisfaction, viewpoints of service quality and service culture among the international students who were attending one higher education institution.

The Importance of Service Satisfaction in the Education Context

According to Tohidi and Jabbari (2012), the quality of education affects the enrollment rate, the finance and the dynamism of the educational institutions. If the educational providers have low-quality services, the satisfaction of students will be low and will reduce the ranking, brand name, and new applicants for the coming years. Tohidi and Jabbari (2012) stated that the students as the customers force the institutions to concentrate on their needs and provide the services to them. These services are seen as the best marketing as the students' satisfaction may directly reflect the success of the post-secondary institution.

Purpose of Thesis Research

The purpose of this thesis was to provide a realistic view of the quality of service culture and international students' satisfaction. Through this exploration of international students' satisfaction, it is anticipated that administrators will more deeply understand the factors, directly and indirectly, affecting international students' satisfaction.

Problem Statement

As above, the higher education market is more competitive, and the University of Saskatchewan, like all similar institutions, has had to confront the following challenges: retention, enrollment, working attitude, as well as equitable services for international students. The quality of higher education comes from the combination of excellent academic progress and public satisfaction with the services provided. The assessment of student satisfaction was considered to be essential in identifying the quality of service in higher education. To remain competitive, the university must continue to maintain and build increasingly strong relationships with students.

Research Questions

Main Research Question: What is the level of international students' overall satisfaction at the University of Saskatchewan, and what quality service culture factors affect this level?

The following questions guided the research:

Question 1: What quality of service variables (dimensions) correlate with the international students' overall satisfaction?

Question 2: Which quality of service culture variables (dimensions) have a positive or negative influence on international students' overall satisfaction?

Question 3: Which demographic variables show significant differences with respect to the quality of service culture and overall satisfaction?

Question 4: Based on the results analyzed, what are the perceived strengths of that quality of service culture at the University of Saskatchewan, and which dimensions may need improvement?

The Significance of the Study

The research findings give an overview of the level of international students' satisfaction with the services provided by the University of Saskatchewan as well as the factors impacting on international students' satisfaction. Potentially, the findings of this research will give the University of Saskatchewan and its student services an overview of the international students' evaluation of the quality of services and programs. It is anticipated that administrators will be able to plan enhanced strategies to improve international student satisfaction, where required and confirm practices. The implications for education systems from this study may help the University of Saskatchewan become more competitive in both attracting and retaining

international students. Further, the findings provide evidence for strengthening the quality service culture in the institution, where deemed warranted.

Definitions

The research focused on the relationship between quality of service culture and overall international students' satisfaction for those seen as "customers in the university." Hence, the definitions of customer, service, quality, satisfaction and organizational culture will be described.

Customer. Griffin (1996) defined the customer as someone who pays to receive products or services.

International Student. UNESCO (2015) defined an international student as "an individual who has physically crossed an international border between two countries with the objective to participate in educational activities in a destination country, where the destination country is different from his or her country of origin" (np).

Organizational culture. Deshpande and Webster (1989) defined organizational culture as the shared values and beliefs that "help individuals understand organizational functioning and thus provides norms and behaviors for the firm" (p. 4).

Satisfaction. Kotler and Keller (2006) defined satisfaction as "person's feeling of pleasure or disappointment which resulted from comparing a product's perceived performance or outcome against his/ her expectations" (p. 144).

Service Culture. Beitelspacher, Richey, and Reynolds (2011) introduced the concept of service culture that "a customer-centric culture aimed at exceeding customer expectations and creating superior customer value through the development of service and performance

competencies” (p. 215). Therefore, quality of service culture is a measure of how well the customer-centric culture delivered meets customer expectations.

Service Quality. Service quality is a measure of how well the service level delivered meets customer expectations; thereby offering quality service means conforming to customer expectations on a consistent basis (Lewis & Booms, 1983; Parasuraman, Zeithaml & Berry, 1985).

Service. Kotler and Bloom (1984) defined service as “any activity or benefit that one party can offer to another that is essentially intangible and does not result in the ownership of anything. Its production may or may not be tied to a physical product” (np).

Assumptions

Key to this study were the assumptions that:

1. An organization may have more than one type of culture. However, in and for the purposes of this research, the author assumed that there was only one expression of the overall quality of service culture and organizational culture in the university.
2. The author assumed that all international students understood the survey and answered honestly; in other words, the researcher assumed that all participants were truthful and honest in their answers.
3. The research assumed that all of the responding participants were international students.
4. The author measured the relationship between quality service culture and international students' overall satisfaction from the perspective of international students.
5. In a university, the school, colleges, non-academic and academic could be have the different working styles and cultures. Hence, the author assumes that the culture of schools, colleges and non-academic and academic staff are the same.

6. The author acknowledged that there are various perspectives in terms of the culture of post-secondary education. However, Government of Canada uses “education export” term in the report of international students’ contribution to Canada economic (Global Affair Canada, 2018) and the international education strategy (Global Affair Canada, 2019). The Finish Ministry of education and Culture also defined educational export as “the sale of educational services to foreign based businesses, individual persons in the private sectors, or public sector representatives or organizations.” (Ministry of education and Culture, 2013, as cited in Delahunty, 2016, p.8), Hence, the author took the stance that post-secondary education providers were in same as commercial service providers. The advantage of this assumption is that the author could apply the service models designed for the commercial enterprise. On the other hand, the author could not get the deep insight or bias with this assumption.

Limitations

The limitations of the research were:

1. The study did not represent the whole population of the international students enrolled at the University of Saskatchewan. Thus, the primary limitation was the scope and sample size.
2. The research was conducted among international students attending the University of Saskatchewan; therefore, the study may not properly be generalized for the whole market.
3. There may be other variables related to service quality or service culture, which were important but not included in this study (more dimensions of student well-being or demographic variables, for example).

Delimitations

The delimitations for this study were:

1. The scope of study focused on international students at the University of Saskatchewan and from August to October 2019.
2. There are several models to measure the quality of service and customer satisfaction.

However, the author focuses on the combination of the SERVQUAL model and service culture from the customer's perspective.

Outline of this Thesis

The thesis has five chapters. The first chapter introduces the purpose of the research (to explore the overall international students' satisfaction and quality of service culture in higher education), together with research questions, definitions, limitations, delimitations, assumptions and significance. In chapter two, the author presented the literature deemed relevant to the purposes of the study, especially in terms of service quality, service culture, customer satisfaction, together with the relationship amongst these terms. A conceptual model is also presented in chapter two. Chapter three presents the research methodology, data collection and data analyzing plan. Chapter four and five portray and display the results and findings of data analyzes, hypothesis testing, responses to research questions, discussion on the relationship between extant literature and findings as well as implications of this study for theory, policy and practice.

Chapter 2

Literature Review

Chapter Two discusses the concepts and the previous studies related to service culture, service quality, and international students' overall satisfaction. The literature helped the author to more deeply understand the associated topics, as the extant relationship amongst the various constructs. The author addresses the dimensions of quality of service culture that helped to develop measures for the overall international students' satisfaction in post-secondary education and quality service culture.

The Challenges of International Students In Canada Via The Lens of Institutional and Stakeholder Theories

A customer will be satisfied when the demand for services offered is met at a level that is equal to or exceeds the expectations. In the educational sector, the service quality is determined by the overall assessment of the students for the services they receive as part of their educational experience. Moreover, international students can suffer extraordinary pressures when they are studying abroad. If the universities understand their challenges and have adequate services for them, then the satisfaction of international students can be increased. Hence, this section will discuss the challenges of international students while studying in Canada

The lack of career services for international students in the post-secondary education. According to Sinacore, Park-Saltzman, Mikhail and Wada (2011), mentoring and securing a supervisor are extremely important to these students' success in graduate school. The participants in their study indicated that their supervisors provided them with both academic and personal mentoring, which helped them to understand the new culture as well as to prepare them for the long run. In their study, the mentors connected international students with social support,

job opportunities, and information about the university and broader community. However, even though most of the international students had their academic advisors or supervisors, they still lacked the information and resources to get jobs after graduation (Sinacore, Mikhail, Kassan, & Lerner, 2009). As in the report of participants in Sincaroe et al. (2011) study, students attended career services once for purposes of resume writing, mock interviews, workshop or job fair but, for the most part, these limited activities did not meet their needs. The researchers also indicated that typically students did not seek individual career counselling.

Challenges of International students in universities and after graduating. Ozturgut (2013) argued that even though international students were supported through a variety of social and cultural activities, there was a strong need for personalized support. Living overseas, without social networks and family was not easy for international students. There are a lot of challenges for them to be in Canada. University is the place wherein they could receive support (Li & Que, 2015). They can make friends, build social networks, as well as receive academic advice at the university. However, there are still barriers for these students with respect to accessing services and being satisfied with these university services.

Homesickness. Homesickness is one of the biggest challenges for international students, despite their leaving their home countries voluntarily. McLachlan and Justice (2009) indicated that nearly 100% of the participants in their research faced homesickness when they first came to the U.S. If international students are not good at English, they cannot communicate with other people, and the degree of homesickness was significantly increased (Poyrazli & Lopez, 2010). This issue directly was understood to affect their mental health, as well as to indirectly affect their academic performance (Thurber & Walton, 2012). It was better for them if they were able to make friends from the host country; however, this was seen as the challenge of living within a

different culture as well as speaking a different language. So, typically, it was more comfortable for them to be friends with those who shared the same language and culture (Brown & Mazzarol, 2009).

Language. As mentioned above, the lack of English fluency has been seen as creating a struggle for international students in university and social life. Several studies that were cited by Li and Que (2015) indicated that the limits of students' interactions with their classmates and supervisors had made these students more isolated. Even though international students meet the English requirements, they still may have trouble, especially in listening and speaking skills. It was challenging for international students to follow the lectures, as well as discussions in classrooms and research studies (Kim, 2006).

Furthermore, besides academic performance, language problems also affect international students' plans (Li & Que, 2015). They tended to pursue a higher degree or better job if their English ability was higher (Ma & Yeh, 2010). Lastly, even after living in Canada for a few years, international students were not comfortable and confident with their English skills (Arthur & Flynn, 2011).

Transportation. Public transportation was the priority choice for international students, in the study of Li and Que (2015), wherein their participants complained of the inconvenience entailed in taking a bus. As a result, international students preferred to rent a place where near the university in order to avoid the inconvenience of public transportation (Li & Que, 2015). However, transportation was not only helpful for going to school, but they also needed to go to the supermarket, workplaces and to participate in extra activities. Sometimes students were limited in their social interaction by transportation challenges, in addition to difficulties

associated with their daily commutes. The winter weather in Canada was also an issue for international students.

Job and Financial Pressure. In Canada, international students pay the tuition fees that are more than those paid by Canadian students. It has also been noted that there are fewer scholarships for them (Hopkins, 2012; Mewett, Marginson, Nyland, Ramia, & Sawir, as cited in Li, & Que. 2016). International students usually take part-time jobs on or off-campus to cover fees when studying abroad. Such activities can have a negative impact on their studies, as well as for their health (Chen, 1999).

After graduating, international students may have one to three years for an open work permit. However, according to Sincacore et al. (2011), they may not be familiar with the labour market in Canada because of language issues and barriers associated with not having “Canadian” working experience. Furthermore, international graduate students in Sincacore et al.’s (2011) study said that there was a lack of support for graduate students compared with undergraduate students. There were internships or co-ops but these typically were just for undergraduate students. Moreover, not working in their field, shortage of experience or challenges with their not finding well-paid jobs were the problems for international students after graduation (Li & Que, 2015).

Culture Shock. This term is defined as the challenging process of initial adjustment in a new cultural environment or new country (Pedersen, 1995). It is tough to adapt to a new culture and takes time to familiar with the host country. In the context of higher education particularly among international students, there are several researchers studying this topic. Culture shock has been studied in the context of higher education particularly among international students (e.g., Furnham, 2004). Kell and Vogel (2008) said that setting into a new living environment or

community could lead to disorientation and culture shock. Presbitero (2016) pointed out that the culture shock affected international students' adaption in the new country. The positive adaption relates to successful sojourns, and in contrast, the negative adaptation correlates to unsuccessful sojourns. Hence, if an international student experiences culture shock, it will affect the overall life satisfaction and lead to the stresses at school, home and society. Not only that, international students will suffer social isolation and loneliness that makes them vulnerable (Rajapaksa & Dundes, 2003; Poyrazli & Lopez, 2010).

According to Lysgaard (1955), there are four stages of culture shock: Honeymoon, Frustration, Adjustment and Adaption (Figure 2.1)

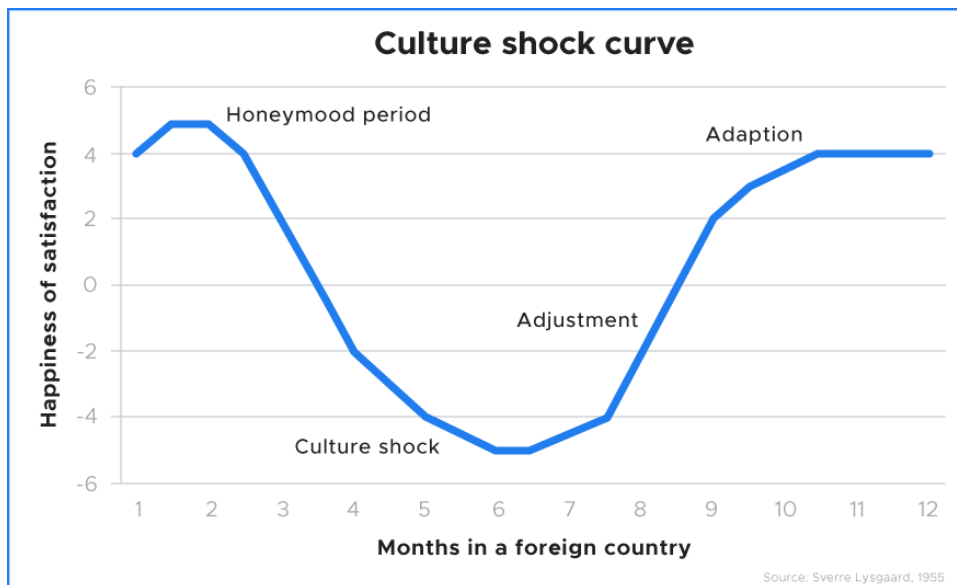


Figure 2.1 Culture shock curve (Lysgaard, 1955)

Adjustment as a process over time seems to follow a U-shaped curve: adjustment is felt to be easy and successful to begin with; then follows a 'crisis' in which one feels less well adjusted, somewhat lonely and unhappy; finally one begins to feel better adjusted again, becoming more integrated into the foreign community. (Lysgaard, 1955, p. 51)

According to the website of Student Wellness Centre, the University of Saskatchewan (2014), In the first stage- honeymoon, the international students will be excited about the new

things (people, sights, food, and climate). After that, in the stage of culture shock, international students start to feel homesickness, missing the native languages, friends and family. Then, they will reject themselves to the host country and want to return home. When overcoming this stage, they will adapt themselves to the new culture and be more confident. In the last stage, they will become bi-cultural. They will develop understanding of the customs, norms and culture.

The Institutional theory. In the current economic climate, universities are facing the funding cuts and potential future decreases in student numbers so that they have to compete with each other for resources and students, not only in the local but also international market (Paswan & Ganesh, 2009). To be competitive, they have to deliver a high quality of service to stakeholders who are students, investors as well as internal staff. The most important idea is that the success of universities depends on their students' satisfaction (Brown & Mazzarol, 2009). According to Cuthbert (1996), the characteristics of service provider- university are: (1) Products/services in higher education institutions are intangible and varied. (2) Production and consumption would occur at the same time, and (3) students, who are primary customers, participate in the delivery process. The university-service providers can only deliver an active service when they can identify and understand the primary customer- student's expectation (Gruber, Fuß, Voss, & Glaser-Zikuda, 2010) to attract them and serve their needs (Nadiri, Kandampully. & Hussain, 2009). As mentioned before, there is an increasing number of international students as well as the trend in internationalization education in universities in Canada; this requires a better understanding of the role of the high-quality services for international students, which is one of the factors to be an advantage in the global market.

In the lens of institutional theory of DiMaggio and Powell's conceptual framework (1983), international students' satisfaction is the internal and external pressure to change. In

Christiansen's study (1993), he had tested DiMaggio and Powell's conceptual framework (1983) by investigating the structural change that occurred within Student Development, which is part of the Student Affairs division, at Rolling Hill State University (RHSU). He described the pressures of the student affairs division that were from intra-, inter, extra environment (Figure 2.2) in a higher education setting.

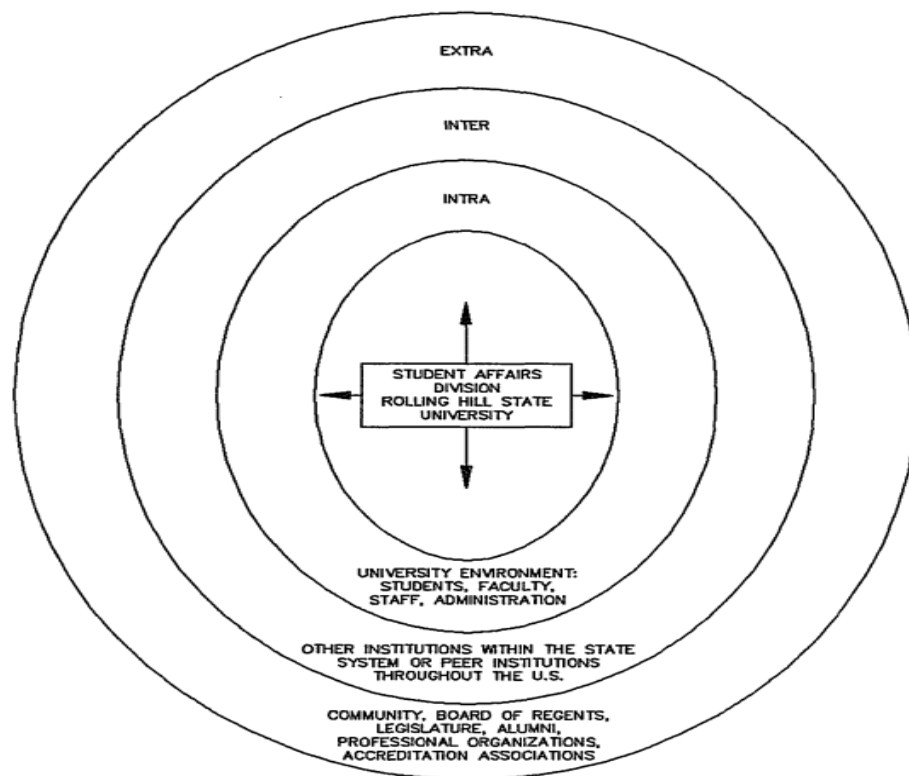


Figure 2.2: Intra-, Inter-, and Extra University Environments. Christiansen (1993)

His study indicated that the operation of student affairs administrators was most strongly affected by intra-university environments (student, faculty, and staff). Thus, they have to be aware as well as knowledgeable about these environments to deliver an effective service to their stakeholders.

Stakeholder theory. This theory looks at the relationship between an organization and others in the internal and external environment. In other words, to recognize, analyze and examine the characteristics of individuals or groups who are related to organization, the stakeholder concept of management was developed. According to Mainardes, Alves and Raposo (2013), there are three levels of managerial processes: “(1) identify stakeholders, (2) recognize their needs, interests and build a relationship with stakeholders, (3) all carried out under the auspices of attaining organizational objectives.” (np). In the higher education sector, the different expectations, needs or demands of distinct stakeholders will lead to conflicts and difficulties for strategies of universities (Conway, Mackay, & Yorke, 1994). Therefore, they need to reach beyond merely identifying their stakeholders to be able to recognize their different needs and expectations (their demands) (Bertrand & Busugutsala, 1998). According to Borkowski and Ugras (1992), students are known as the critical stakeholders in universities for two main reasons: Firstly, the success of a university is based on students as-the main customers or stakeholders. Secondly, the quality of education (service) is the main reason that attracts students to enroll. Juha (2015) also developed a stakeholder map (Figure 2.3) and described the most important stakeholder is the student.

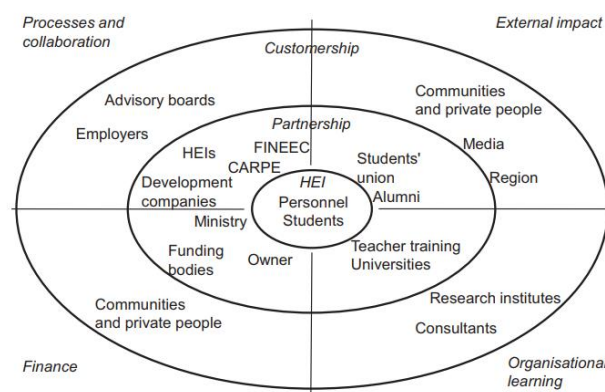


Figure 2.3: Stakeholder map (Juha ,2015)

The above studies focused on how universities cope with external and internal pressure to meet the quality of education as well as the expectation of students. In the context of market-orientation and internationalization, the capacity to react to threats in their surroundings, meet the needs of their public and resolve their internal problems determines the institution's level of stakeholder orientation (Tam, 2007). To remain competitive and attract resources, universities have to understand the stakeholder needs, carefully evaluate the internal and external pressures (both negative and positive) (Somers, 2009). Some universities have to change the organization structure; some expand or apply the quality management tools from successful models.

In summary, within the context of globalization and budget-cutting, nowadays, universities in Canada are suffering from external pressures (fund, social, regulation, macroeconomic factors) and internal factors (student, faculty, culture shock...). From the perspective of institutional theory, universities must continue to make efforts to better understand their current situations and to influence actors with suitable strategies to better compete with competitors for scarce resources. As mentioned above, the universities and government of Canada have tended to focus more on international students who are seen as one of the main influencing actors or in the other words; they are main stakeholders who have a strong positive association with organizational performance in the context of stakeholder theory (Maignan Gonzalez-Padron, Hult, & Ferrell , 2011). Thus, there is a need for understanding and identifying international students' demands in higher education. When they are successful in studying and after graduating, they contribute to the knowledge economy as well as provide human resources in the labor market in Canada. In the next section, the author will describe how the service culture of an institution is essential in serving the students as well as helping universities to have

a deeper understanding of the quality of service culture from the international students' perspective.

Organization Culture and Service Culture

As the competition among the higher education institutions is rising, excellent quality educational services and satisfied students play critical roles for success. Therefore, the universities concentrate the efforts on students' understanding and satisfaction. Stanley and Stanley (2007) stated that a successful organization creates good relations and offers quality services to customers and in return, is customers' loyalty and retention. On the other hand, customer service or customer orientation is an element of the culture of the organization which increases both customers' interests and organizational success (Korunka et al., 2007). Cameron and Quinn (1999) also pointed out that organizational culture as a critical factor influences the success of educational institutions. Therefore, this section will discuss service quality, service culture and organization culture in the context of the higher education environment in order to understand the relationship among the students' satisfaction, service quality and service culture.

Organizational culture. The culture of an organization is hard to define. There are numerous definitions related to the organizational culture:

Organizational culture is the daily activities and thinking of each member in an organization. Members have to learn and follow these daily actions and thinking to be accepted. Culture includes behavior, skill, beliefs, habits, norm as well as goals of stakeholders in the organization (Jacques, 1952). In addition, the culture of an organization refers "to the unique configuration of norms, values, beliefs and ways of behaving that characterize the manner in which groups and individuals combine to get things done" (Eldridge & Crombie, 1974, p. 89). According to Schein (1980), culture is:

A pattern of basic assumptions that a group has invented, discovered or developed in learning to cope with its problems of external adaptation and internal integration, and that have worked well enough to be considered valid, and therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems. (p.111)

Organizational culture is defined as the general constellation of beliefs, customs, value systems, behavioural norms and ways of doing business that is unique to each corporation (Tunstall, 1983). Similarly, Deshpande and Webster (1989) defined organizational culture as the shared values and beliefs that “help individuals understand organizational functioning and thus provides norms and behaviours for the firm” (p. 4).

To summarize and for the purposes of this research, organizational culture is the set of values, norms, beliefs, attitudes and assumptions that shape the ways of actions and behaviours of members in an organization. The term ‘values’ refers to what is believed to be important about how people and organizations behave. ‘Norms’ are the unwritten rules of behaviour. Effective organizations are when the stakeholders have values and beliefs that align with the policies and procedures of the organization (Denison & Mishra, 1996). Therefore, service-oriented or customer-centred organizations, which have an influential service culture, make the service customers as a high priority.

Service culture. Bob (2015) stated that “service culture is more specific than organizational culture because everything relates back to customer service. Instead of talking about values and beliefs in general, we must talk about our values and beliefs about customer service” (np). Service culture is defined by way of communication and service delivery. According to Grönroos (2007), the concept of service culture is defined as “a culture where an appreciation for good service exists, and where giving good service to internal as well as ultimate, external customers is considered by everyone a natural way of life and one of the most

important values” (p. 418). Service culture plays a vital role in the customer-oriented organization (Craig & Roy, 2004; Zeithaml, Bitner, & Gremler, 2009), as well as a prerequisite for effective service organizations (Bowen & Pugh, 2008; Hallowell, Bowen, & Knoop, 2002; Heskett, Schlesinger, & Sasser, 1997; Parasuraman, 1986; Schneider & Bowen, 1995, cited in Akiko, 2012).

Service culture not only refers to organizational practices but also relates to norms, values, and behaviour of both the organization and its employees. In business, employees do their jobs without supervising, and management does not control employees’ behaviour directly (Schneider & Bowen, 1985). However, employees’ behaviour is critical for delivering quality services (Parasuraman, 1986). Besides, Dietz, Pugh and Wiley (2004) indicated that the productive service culture leads to more positive customer perceptions of the organization, especially with frequent and proximal interaction between the customer and the employee. Therefore, if an organization has an influential service culture, it will develop employees’ positive attitudes toward giving service to their customers (Grönroos, 2007). In short, “service culture is fundamental to promoting service behaviour” (Zerbe, Dobni, & Harel 1998, p. 165). Organizations that focus on customers less tend to perform poorly in sales as against those that are customer-oriented (Starkey & Woodcock, 2002).

A service culture will be created in an organization when everyone makes service quality the top priority and regards customer satisfaction as an everyday mission (Zeithaml, Bitner & Gremler, 2009). It means that organizations have a strong commitment to serve and satisfy their customers. In order to flourish a service culture, management must be aware and endeavor to ensure that customer service energy is pervasive throughout the company and remains there substantially. Hence, the service culture must be started from the top executives and flow down.

In the context of higher education, the institutions are similar to the business organizations with structures, processes, missions, goals and vision. According to Erdem (2016), the higher education organizations are “an academic and autonomous construction” that have created a unique organizational culture while “performing education, basic and scientific researches, community’s duty functions” (p. 255). Universities also have their own cultures which differ from others by “values, basic assumptions and norms, leaders and heroes, symbols and language, stories and legends, ceremonies and customs” (Erdem, 2016, p. 255). In other words, the post-secondary institutions deliver the service to various stakeholders that is similar with the other commercial organizations; nevertheless, they also have their own unique culture. The service culture in the post-secondary education sector reflects the way of delivering the services to the stakeholders as well as illustrate the quality of customer service.

There are several research studies regarding the relationship between the culture of universities, colleges and students’ satisfaction. Liebenberg and Barnes (2004) studied the role of organizational culture and job satisfaction in the delivery of quality customer service in a higher education environment. They found that the association between culture and students’ satisfaction was not significant, but there was a strong tendency displayed. This tendency might be explained by the fact that the quality service and learners are the priority in university. However, the relationship between job satisfaction and learner satisfaction was not significant. Another research project by Uprety and Chhetri (2014) examined the relationship between college culture and student satisfaction. The results showed that college culture related significantly to students’ satisfaction.

In a nutshell, it can be said that the organizational culture and service culture are likely to play a critical role in customer satisfaction. There are several studies which show that

organizational culture and service culture impacts service quality and customer satisfaction (Gillespie, Denison, Haaland, Smerek, & Neale, 2008; Givarian, Samani, Ghorbani, & Samani, 2013); this may also hold true in the post-secondary education sector (Liebenberg & Barnes, 2004; Uprety & Chhetri, 2014). However, almost all of the previous studies have assessed organizational culture or service culture from the perspective of staff or faculty members (Uprety & Chhetri, 2014). In the proposed study, the author approaches the association between quality service culture and international students' overall satisfaction at the University of Saskatchewan from the perspective of international students. In the next section, the service quality will be discussed and how it is related to customer satisfaction.

Service Quality Across the Sectors

As mentioned above, the service culture will affect service quality via organizational practices. The term 'service quality' is constituted of "service" and "quality", and each definition will be discussed in order to clarify. In addition, this section presents the service quality in higher education. Kotler, Armstrong, Saunders and Wong (1996) defined service as an "activity or benefit that one party can offer to another that is mostly intangible and does not result in the ownership of anything. Its production may or may not be tied to a physical product." (np) "Service is a critical driver of customer retention and profitable growth" (Query, He & Hoyt, 2007, p.152).

In terms of quality definition, Drucker (1985) stated that the quality of a service or a product is determined by what the customer gets out and be willing to pay. Quality is a comparison between expectation and performance (Parasuraman, Zeithaml & Berry, 1985). Harvey and Knight (1996) argued that quality is a transformation which is a process of qualitative change with an emphasis on adding value to customers and empowering them.

Quality can be viewed as exceptional, perfection (or consistency), fitness for purpose, value for money and transformation (Harvey & Green, 1993).

Service quality is an essential dimension of competitiveness (Lewis, 1989) and is frequently reported in the services marketing literature. Grönroos (1990) stated that service quality is a critical role in service management and marketing. During the past two decades, this topic became a primary focus of researchers due to its strong impact on customers and organizations (Seth, Deshmukh, & Prem, 2005; Sureshchandar, Rajendran & Anantharaman, 2003). A definition of quality revolves around the notion that quality has to be assessed on the evaluation of the customer using the service. Juran and Gryna (1988) first introduced the definition of service quality as “meeting user’s expectation,” whereas Zeithaml, Parasuraman and Berry (1990) defined service quality as “the feeling of customers about superiority or inferiority in service delivery” (np). Crosby (1979) stated another conceptualization of service quality referring to it as conforming to needs and requirements.

The most commonly referred definition of service quality is the difference between customer expectations that a customer will receive from a service provider and the perceptions about the services being received by the customer from the service provider (Parasuraman, Zeithaml & Berry, 1988; Grönroos, 2001). Quality perception is also viewed as a form of attitude and results from comparing expectations with perceptions of performance. The quality of service may be the outcome of evaluating some service confrontations. Parasuraman, Zeithaml, and Berry (1990) stated that a comparison of expectation before service and actual knowledge of service would lead to consumer perception of service quality. The service quality perceived by the customers is the result of the difference between customer’s expectations of a service and their perceptions of the actual service that they received from the service providers

(Parasuraman, Zeithaml, & Berry, 1988; Grönroos, 1994). Service quality was also considered to what extent a service is adequate to meet the customer's needs and wants (Lewis & Mitchell, 1990; Dotchin & Oakland, 1994). Therefore, if an organization continually provides services that exceed customer expectations, the service will be assessed as high quality. Hence, if an organization does not meet customer expectations, services will be evaluated as poor quality (Zammuto, Keaveney & O'connor, 1996).

Service Quality in Higher Education

The definition of service quality in higher education is still "...a rather vague and controversial concept" (Cheng & Tam, 1997, p. 23). The definition of higher education quality is dependent on various stakeholders who experience the different services provided by higher education institutions. As students are the primary stakeholders of any higher education institution, their experiences in engaging with the various services offered during their student years comprise service quality (Jancey & Burns, 2013). Service quality in the education industry is not only essential but also an important parameter to measure excellence in education. Alves and Raposo (2010) stated that positive perceptions of service quality have a significant impact on student satisfaction that helps the university to attract more students through word of mouth communication. Students can be motivated or inspired by both the academic achievement and the organizational effectiveness of their organization. Ahmed, Nawaz, Ahmad, Ahmad et al. (2010) mentioned that service quality is a significant performance measure of the excellence of education and is an influential strategic variable for universities to create a keen awareness in the mind of the consumer.

One of the most straightforward and most powerful marketing strategies, which is used by service providers, is through positive words. Most academic institutions with good reputations

are highly focused on strategic issues, such as providing excellent customer service. It is vital because they will be able to create and build an excellent rapport with their customers, and it is essential to define their future in the industry (Malik, Danish, & Usman, 2010). Moreover, service quality measurement in the establishments of higher education is particularly associated with the expectations of students and their experiences of a service (Tahar, 2008). Typically, students evaluate and assess the quality of service as satisfactory by comparing what they want or expect what they are getting. Gruber et al. (2010) believed that employee behaviour and attitudes to customer exposure primarily determine customer perceptions of the quality of service provided. The elements of human interaction are essential to determine whether students have reviewed the service satisfactory or not. Lastly, universities should have appropriate infrastructures such as administrators, educational facilities, health-wellbeing, safety, counselling service, housing, dining facilities, and recreation centers (Sapri, Kaka & Finch, 2009).

General Satisfaction

Kotler and Clarke (1987) defined satisfaction as “a feeling of a person who experiences performance or results that meet his or her expectations.” (p.16) Similarly, Zeithaml, Parasuraman, and Berry (1990) argued that satisfaction is an overall evaluation, attitude or perception of the service. The assessment is based on the difference between expectations and actual experiences of the customer. Satisfaction is a function of the relative level of expectation which perceives performance. Oliver (1980) proposed:

Satisfaction is a post choice evaluation judgment concerning a specific purchase decision, on the other way it can be approximated by the equation: satisfaction equals perception of performance minus expectations. (p. 482)

To summarize, satisfaction is the evaluation, assessment or judgement of the products or services which are purchased by customers. The next section will discuss more customer satisfaction.

Customer Satisfaction

Customer satisfaction is conceptualized as an overall evaluation based on the customer's experience on the goods or services purchased (Cronin & Taylor, 1992; Fornell, Johnson, Anderson, Cha, & Everitt, 1996). In a quality management context, customer satisfaction is defined as “a result of a comparison between what one customer expects about services provided by a service provider and what one customer receives as actual services by a service provider” (Yunus, Azman, Rane, & Salomawati, 2009, p. 2).

Customer satisfaction has been one of the top tools for a successful business. There are two main reasons why customer satisfaction is vital for business. First, it is easier to maintain old customers than to attract new ones. Second, customer satisfaction has a positive effect on the profitability revenues of the company (Rosenberg & Czepiel, 1984). By increasing customer satisfaction, the company can enhance the benefits ranging from customer loyalty, brand name to profits. When the customer is satisfied with the product or service of the company, it can influence the customer to purchase frequently and to recommend products or services to potential customers. Therefore, a business organization cannot develop if the company is not aware of the needs of customers (Tao, 2014).

Student Satisfaction

According to Sapri et al. (2009), the customer is the lifeblood of any organization, whether private businesses or enterprises. In the educational sector, organizations have various customers who are students, faculty, staff, alumni, and donors. However, the primary stakeholder

is the students due to that if they are dissatisfied with the institution, the retention rate will decrease, and that will affect all the customers (Hameed & Amjad, 2011). Students' satisfaction plays a vital role in determining the accuracy and authenticity of the system being used. Student expectations can go further before they enter university and graduate school (Palacio, Meneses, & Perez, 2002).

Browne, Kaldenberg, Browne, and Brown (1998) stated that the quality of teaching influences students' satisfaction in the classroom, curriculum activities as well as other factors which relate to the university. Navarro, Iglesias, and Torres (2005) mentioned that students evaluate the quality of the institute based on the teacher's (material) basis, reliability and responsiveness (teaching methods) and organizational management and these factors directly affect the level of student satisfaction. Student satisfaction is a short-term attitude which is derived from the assessment of educational services from the university (Elliot & Healy, 2001). When the services in the institution meet or exceeds the expectation of students, they will be satisfied or be delighted. Conversely, students are not satisfied with the institution when the service is less than their expectations, and when the gap between the quality of service and expectation is high, the students tend to convey the negative dimensions (Petruzzellis, D'Uggento, & Romanazzi, 2006).

On the other hand, Hasan and Ilias (2008) argued that true satisfaction constitutes issues of cognitive and empirical experience in college/university years. Hence, repeated experiences in campus life are continuously shaping student satisfaction. Tian and Wang (2010) found that satisfaction was the function of the consistency between cognitive performance and the benefits afforded by consumer value and configure the values of consumers affected influenced by cultural values. Besides, they have addressed cultural differences that directly affect students'

level of satisfaction with their perceptions of services and it is not easy to satisfy customers with the same cultural background and to satisfy customers with diverse cultures is even more difficult.

Grossman (1999) stated that students need treating like a customer in the post-secondary organizations and in that case, the post-secondary organizations need to serve the students on a better priority to fulfill their expectations and needs. According to Mavondo, Zaman and Abubakar (2000), school reputation, instructor quality and delivery of programs are essential while market orientation is considered a necessary precedent for student satisfaction. The results of this study indicate that students feel comfortable providing positive comments and introducing prospective students to the educational institution they are studying. Not only that, satisfied students can influence new students, who could be friends or acquaintances, by good word-of-mouth. As a result, they can enroll in the college or register in other courses (Gruber et al., 2010; Helgesen & Nettet, 2007).

Service Quality and Customer Satisfaction

There are several studies indicating that service quality positively influences customer satisfaction (Cronin & Taylor, 1992; Johnson & Fornell, 1981; Kristensen, Martensen & Gronholdt, 1999, Parasuraman, Zeithaml, & Berry, 1988). Athiyaman (1997) indicated a vital relationship between service quality and customer satisfaction, and all service encounters need to be managed to increase customer satisfaction. Ahmed et al. (2010) found a positive and vital relationship between the quality of service provided and customer satisfaction. Oliver (1981) defined satisfaction as the assessment of customer appreciation for the pleasure derived from the use of the level of accomplishment. In a study by Parasuraman, Zeithmal and Berry (1994), they concluded that the quality of service was one of the basics of customer satisfaction. To prove the

relationship between quality of service and satisfaction, they studied the model of Oliver (1993), which combined two concepts and suggested that the quality of service was perceived as the premise of satisfaction. The results showed that service quality leads to satisfaction.

Parasuraman, Zeithaml, and Berry (1988) compared service quality with satisfaction. They determined that the quality of service was a form of organizational attitude, an overall long-run assessment, while satisfaction was a measure of the transaction.

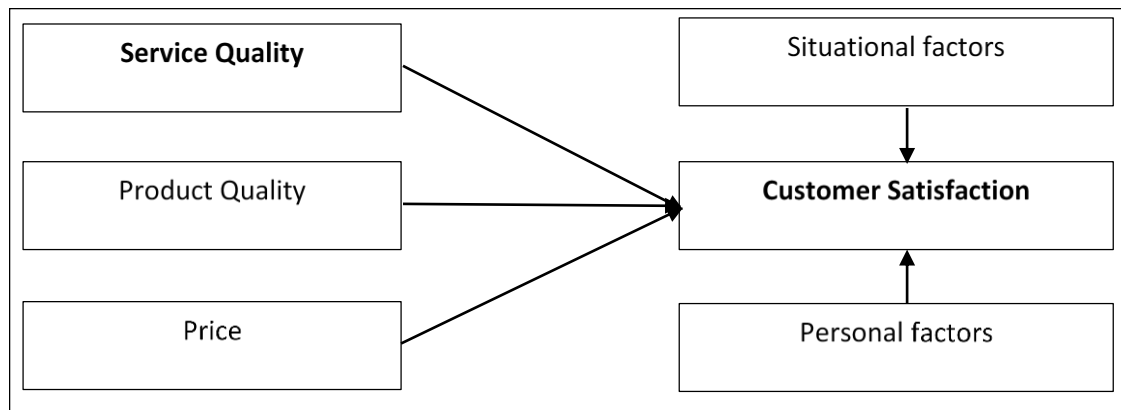


Figure 2.4 Research Model of Zeithaml & Bitner (2000)

As indicated in Figure 2.4, Zeithaml and Bitner (2000) developed a model of customer satisfaction that was influenced by factors of service quality, product quality, price, situational factors and personal factors. This study attempts to analyze the customer satisfaction through the impacts of service quality.

The Relationship of Service Quality and Student Satisfaction

It may be helpful to identify and measure the connection between service quality and student satisfaction in higher education (Corneliu, Ceobanu, Bobalca, & Anton, 2010). Gold (2001) stated that students should be considered as primary clients and that educational institutions should focus on student-centred education. The main criteria for student selection of the university or college may be the quality of higher education and services offered at these

institutions (Veloutsou, Lewis & Paton, 2004). When the post-secondary institutions provide the high quality of services for students, the level of student satisfaction is high and increased retention will directly impact funding, job security and academic viability, according to Low (2000).

Many researchers discussed that customer satisfaction leads to customer retention (Mittal & Kamakura, 2001). Quality of service provided to customers brings decisive intention in the future of customers to stay with the institute (Ahmed, Nawaz, Usman, Shaukat, & Ahmad., 2010). Student satisfaction is positively connected to student loyalty (Schertzer & Schertzer, 2004; Navarro, Iglesias, & Torres, 2005). Several previous studies have shown that the service quality of higher education leads to student satisfaction. For example, quality perception and student satisfaction are directly related to students' post-lecture intentions (Banwet & Datta, 2003).

According to Angell, Heffernan, and Megicks (2008), Sultan and Wong (2013), the dimensions of higher education service quality vary widely. There are various factors indirectly or directly affecting the level of student satisfaction, which are non-academic dimensions, academic dimensions, program, guidance, learning opportunities and group size, staff facilities, examination, and reputation (Afzal, Ali, Khan, & Hamid, 2010; Firdaus, 2005). Navarro, et al. (2005) argued that student satisfaction leads to the retention rate, reputation, and enrollment rate. These are affected by the faculty, admissions, and organizational disciplines. Similarly, in a study by Delaney (2005), student satisfaction was found to be driven by staff, faculty members, learning experience, life in residence and on campus, personal development opportunities, student service, and resources.

Tahar (2008) discovered that perception of the higher quality of service-learning between the two countries: The United States and New Zealand. New Zealand students determined the quality by the following ratings: the ability to create career opportunities, program issues, cost/time, physical dimensions, location, and other things, while in the United States, students ranked academic reputation first and then cost/time, other program issues, physical perspectives, and selectivity. Similarly, by using HedPERF model (Firdaus, 2005), Brochado (2009) and Huang (2009) found that non-academic dimensions, academic dimensions, program issues, access, and reputation in higher educational service, had high connection with overall satisfaction, future visits, and recommendation.

On the other hand, the quality of teaching is also a considerable factor leading to student satisfaction. According to Kara and DeShields (2004), the performance of faculty and advisor influences students' academic experiences that which, in turn, affects student satisfaction. In the studies of Bitner and Zeithaml (1996) and Kuh and Hu (2001), the effective interaction or communication between faculty and the student drove student satisfaction. Navarro, et al. (2005) stated that the faculty, teaching method, course administration, as well as facilities, were the critical determinants of student satisfaction in a Spanish university. Similarly, Mai (2005) argued that the overall impressions of the university, overall impression of the quality of the education, the knowledge of teaching staff and their interest in their subject, the quality and accessibility of IT facilities and the career opportunities after graduating played significant roles in predicting the student satisfaction and the most influential predictors of the student satisfaction. In addition, Ilias, Hasan, Rahman and Yaso (2008) determined that the main factors that may affect student satisfaction were: student perceptions of learning and teaching, teaching and learning aids such as libraries, computers and laboratories; learning environments

(lecture rooms, labs, social spaces and university buildings); support facilities (medical facilities, cafeteria, student housing, student services); and external dimensions of learning (such as finance, transportation). With all these capabilities, an organization needs to be able to meet student expectations and compete competitively

Models to Measure Customer Satisfaction

In this section, the author will introduce the models which are used to measure the customer satisfaction: Grönroos' model (1984), Parasuraman, et al. 's SERVQUAL model (1988), Cronin and Taylor's SERPERF Model (1992, 1994), Brogowicz, Delene and Lyth (1990), Spreng and Mackoy (1996), Dabholkar, Shepherd and Thorpe (2000); Zhu, Wymer, and Chen's model (2002), and Firdaus (2005).

Grönroos' model (1984). According to Grönroos (1984), there are three dimensions (Figure 2.5): "technical quality of results," "quality of the encounter function," and "corporate image of the company" affecting the quality of service. Grönroos argued that in examining quality determinants, it is essential to distinguish between quality related to service delivery and quality compared to service outcomes, as assessed by consumers after they are done using the service.

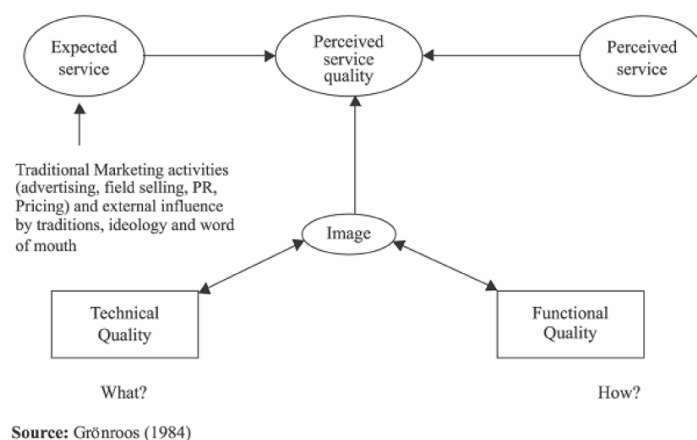


Figure 2.5 Grönroos Service Quality Model

Parasuraman's SERVQUAL model (1988). Based on studies in America, Parasuraman, Zeithmal, and Berry (1985) developed the five gap service quality model SERVQUAL (Service Quality) to measure the service quality. According to Parasuraman, Zeithmal, and Berry (1985), “service quality is a measure of how well the service level delivered matches customer expectations” (p. 42). Due to the superior and straightforward features, the SERVQUAL model was used popularly in almost all the service organizations (also higher education organizations) (Brochado, 2009; Lee & Tai, 2008; Smith, Smith & Clarke, 2007) as well as “hundreds of unpublished articles using SERVQUAL, conference proceedings and an online journal”(Ljaz, Ifan, Shahbaz, Awan, & Sabir, 2011, p. 97).

Initially, Parasuraman, Zeithaml, and Berry (1985) built the model with ten variables of service quality that can be generalized to any service:

- Reliability: It is the ability to perform the promised service dependably and accurately.
- Responsiveness: It is the willingness and readiness of employees to help customers and to provide prompt service, timeliness of service.
- Competence: It is the possession of the required skills and knowledge to perform service.
- Access: It is the ease of approachability and contact.
- Courtesy: It refers to the politeness, respect, consideration, and friendliness shown to the customers by the contact personnel.
- Communication: It is listening to the customers and informing them with the language they understand.
- Credibility: It includes trustworthiness, believability and honesty.
- Security: It refers to the freedom from danger, risk, and doubt, which involves physical safety, financial security and confidentiality.
- Understanding/ knowing the customer: This includes trying to understand the customer’s needs and specific requirements, providing individualized attention and recognizing regular customer.
- Tangibles: It is the state of facilitating good, physical condition of the buildings and the environment, appearance of physical facilities, tools, and equipment used to provide the service. (p. 47)

But over time, these factors were reduced to five elements: Reliability, Assurance, Tangibility, Empathy communication, and Responsiveness resulting in RATER factor. According to a study by Parasuraman, Zeithmal, and Berry (1988), the service quality scale (SERVQUAL scale) was developed with 22 observational variables belonging to five components of service quality: tangibility (4 items), reliability (4 items), responsiveness (4 items), assurance (5 items) and empathy (5 items).

- Reliability: It is the ability to perform the promised service dependably and accurately.
- Responsiveness: It is the willingness and/ or readiness of employees to help customers and to provide prompt service, timeliness of service.
- Assurance: The knowledge and courtesy of employees and their ability to convey and confidence.
- Empathy: The provision of caring, individualized attention to customers.
- Tangibility: It is the state of facilitating good, physical condition of the buildings and the environment, appearance of physical facilities, tools and equipment used to provide the service.

The authors argued that the service quality (Q) should be measured by the distance or difference (GAP) between the service performances (P) and the customer's expectations (E); that is, $Q = P - E$. Based on this difference, the organization will be able to know whether the customers feel satisfied or dissatisfied with the service. When Q is positive, it indicates that service delivery is higher than a client expected it to be. When Q is negative, it means a client's expectations were higher than the service delivered. E and P values are identified through the application of the SERVQUAL questionnaire, which comprises 22 items that are distributed into five quality dimensions as defined by the questionnaire authors. Each item in the SERVQUAL has two questions, using Linkert scale (total is 44 questions) which measure two dimensions: the expected element of service quality and the perceived element of the service they receive, respectively.

In the SERVQUAL model (See Figure 2.6), this measure is expressed in efforts to eliminate or narrow the first, second, third and fourth gap, so that will help a service provider reduce the fifth gap.

- Gap 1: Customer expectation-management gap. This gap addresses the difference between consumers' expectations and management's perceptions of service quality.
- Gap 2: Management perception-service quality specifications gap. This gap addresses the difference between management's perceptions of consumer's expectations and service quality specifications, i.e. improper service-quality standards.
- Gap 3: Service quality specification-service delivery gap. This gap addresses the difference between service quality specifications and service actually delivered, i.e. the service performance gap.
- Gap 4: Service delivery-external communication gap. This gap addresses the difference between service delivery and the communications to consumers about service delivery, i.e. whether promises match delivery.
- Gap 5: Expected service-perceived service gap. This gap addresses the difference between the consumer's expectations and perceived service. This gap depends on the size and direction of the four gaps associated with the delivery of service quality on the marketer's side. (Shahin & Semea, 2010, p. 2)

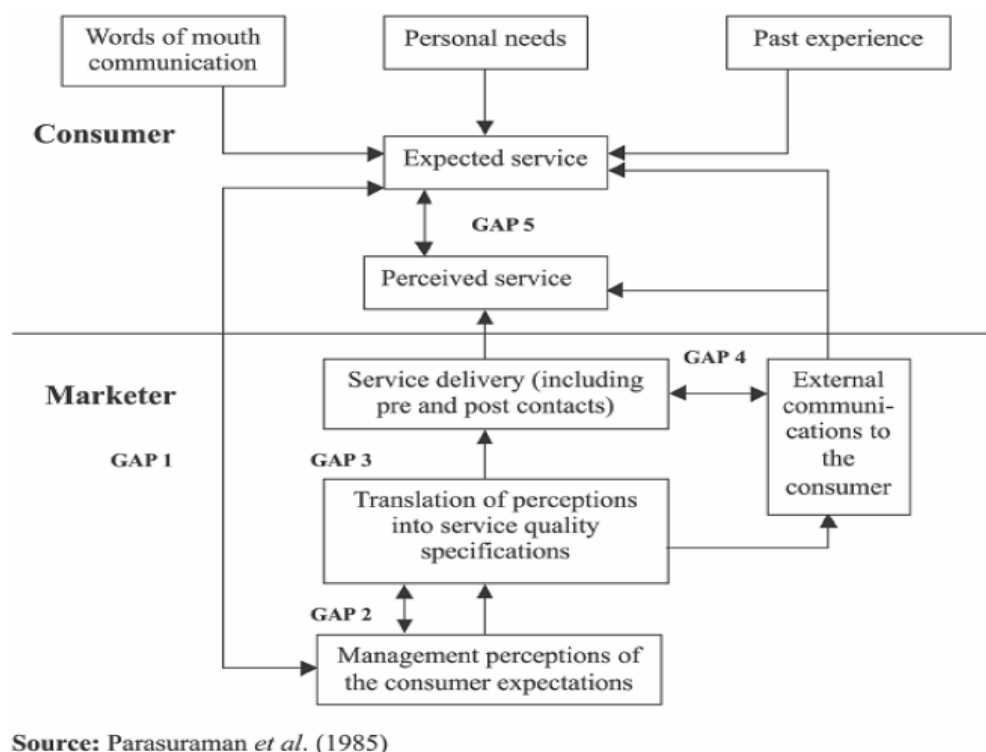


Figure 2.6 SERVQUAL Model.

Cronin and Taylor's SERPERF Model (1992, 1994). Even though the SERVQUAL has some advantages, there are several researchers who have criticized it based on the use of difference scores, the dimensionality, applicability and validity of the model. (Babakus & Boller, 1992; Buttle, 1996; Carman, 1990; Cronin & Taylor, 1992, 1994; Johnston, 1995; Teas, 1993& 1994).

Teas (1993) criticized the utilization of the difference scores for measuring quality gaps as a justification for his disconfirmation model. Cronin and Taylor (1992, 1994) and Buttle (1996) criticized SERVQUAL for failing to draw on the vast literature base on the psychology of perceptions. Predvoditeleva and Balaeva (2005) argued that the service quality score derived from a SERVQUAL measurement is not informative, providing only binary information on customer perceptions of quality and satisfaction (satisfactory/non-satisfactory). Brown et al. said, "Other researchers suggested that the calculation of difference scores could result in poor reliability, especially if the expectations scale were truncated by ceiling effects" (Brown, Churchill, & Peter, as cited in Fogarty, Catts, & Forlin, 2000, p. 4).

Because of the above weakness of the SERVQUAL model, Cronin and Taylor (1992, 1994) developed a new service quality measuring model "SERVPERF" (SERVICE PERFORMANCE) based on SERVQUAL. In the SERVPERF model, Cronin and Taylor (1992, 1994) supported the notion that perceived service quality must be measured as a perception of performance; that is, $Q \text{ (service quality)} = P \text{ (performance)}$. SERVPERF model only measures the performance of service delivered excluding expectations that are based solely on the assessments (perceptions) of the client regarding the performance of the services. Moreover, instead of five dimensions like SERVQUAL, the SERVPERF model has a single dimension and the number of measuring items is reduced from 44 to 22 items, which is only measuring the

delivery of a service provided. The items are measured by Likert scale, where the lowest level of the scale is weak, and the highest is excellent. Because of eliminating those that correspond to the assessment of expectations, the SERVPERF model has the following advantages.

Cronin and Taylor (1992) stated that the SERVPERF model is more efficient than the SERVQUAL model because the number of items is reduced from 44 to 22. It requires less time for the implementation of the survey, as each item or characteristic of the service is addressed once. The assessment measures predict the satisfaction better than the measures of the difference and the interpretation work, and the corresponding analysis is more accessible to carry out. Because the SERVPERF model is only based on perceptions without expectations, the questionnaire is reduced a half items comparing with the SERVQUAL model (Ibarra & Casas, 2015, pp. 234–235). Furthermore, according to the authors, the SERVPERF scale is more adequate than the SERVQUAL scale to reflect a client's perception of the quality of service, as it is more capable of providing a more accurate service quality index than the one provided by the SERVQUAL scale. Through the SERVPERF scale, Cronin and Taylor (1992) concluded that the perceived service quality could predict client satisfaction and that client satisfaction plays a stronger role in future purchase intention than service quality.

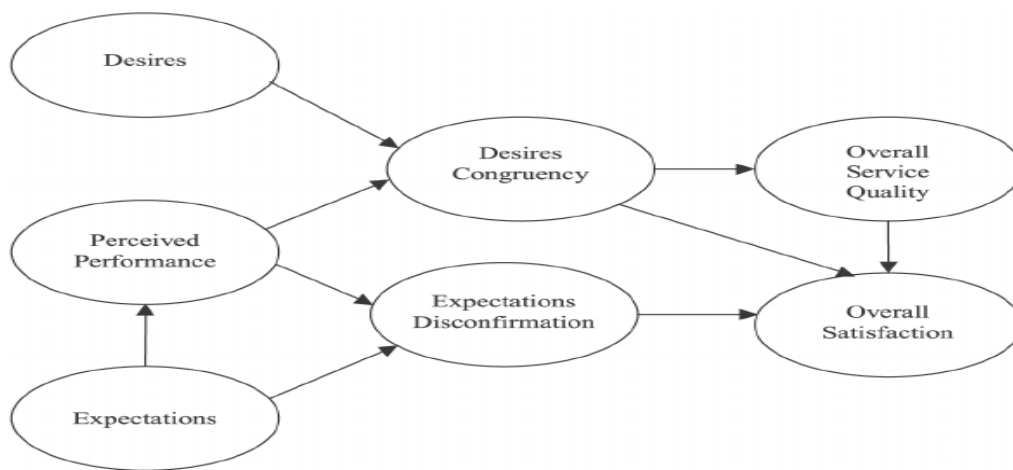
In summary, the similarities and differences between SERVQUAL and SERVPERF scales may be described as SERVQUAL comprises five dimensions, whereas SERVPERF is characterized as unidimensional; both scales contain 22 items, but SERVQUAL considers expectation and delivery questions. SERVPERF only considers questions having to do with service performance. Such observations are shown in Table 2.1, in which performance only (P) questions are shared between the two scales, as pointed out.

Table 2.1. Original Items from SERVQUAL versus SERVPERF scale. (Source: Parasuraman, Zeithaml, & Berry, 1988; Cronin & Taylor, 1992, as cited in Silva, Moraes, Makiya, & Cesar, 2017)

Dimension	SERVQUAL expectations (E)	SERVQUAL performance (P), SERVPERF
SERVQUAL tangibles	Companies should have modern equipment	XYZ company has modern equipment
	The physical facilities of the companies must be visually attractive	The physical facilities of XYZ company are visually attractive
	The staff in the companies should be well dressed and clean	The staff in XYZ company is well-dressed and clean
	The appearance of physical company facilities must be conserved according to the services they provide	The appearance of XYZ company's physical facilities is conserved according to the services it provides
SERVQUAL reliability	When these companies promise to do something in a certain time, they should do it	When XYZ company promises to do something in a certain time, they really do it
	When clients have problems with these companies, they should be helpful and reliable	When you have a problem with XYZ company, they are helpful and reliable
	These companies should be trustworthy	XYZ company is reliable
	They should provide their services within the promised deadlines	XYZ company provides its services within the promised deadline
	They should keep their records in a proper way	XYZ company keeps its records in a proper way
SERVQUAL responsiveness	The companies are not supposedly expected to tell clients exactly when their services are performed	XYZ company does not inform exactly when its services will be executed
	It is not reasonable to expect immediate availability from the employees in the companies	You do not have immediate services from the employees in XYZ company
	The staff in the companies do not always have to be available to help clients	The XYZ company's employees are not always willing to help clients
	It is normal for employees not to immediately respond to requests for being too busy	The XYZ company's employees do not respond to client requests promptly, as they are always busy
SERVQUAL assurance	Clients should be able to believe the employees in these companies	Can you believe in the XYZ company's employees?
	Clients should be able to feel secure while negotiating with the employees in these companies	Do you feel secure while negotiating with the XYZ company's employees?
	The employees in these companies should be polite	The staff in XYZ company is polite
	The employees should receive proper support from these companies to properly perform their duties	The XYZ company's employees receive proper support from this companies to properly perform their duties

SERVQUAL empathy	The companies are not supposedly expected to give clients individual attention	XYZ company does not give you individual attention
	The employees in these companies are supposedly not expected to give personalized attention to clients	The staff in XYZ company does not provide personal attention
	It is absurd to expect the employees in these companies to know what their clients' expectations are	The staff in XYZ company does not know your needs
	It is absurd to expect these companies to have their clients' best interests as goals	XYZ company does not have your interests as its goal
	The working hours of these companies should not be expected to be convenient to all clients	XYZ company's working hours are not convenient to all clients

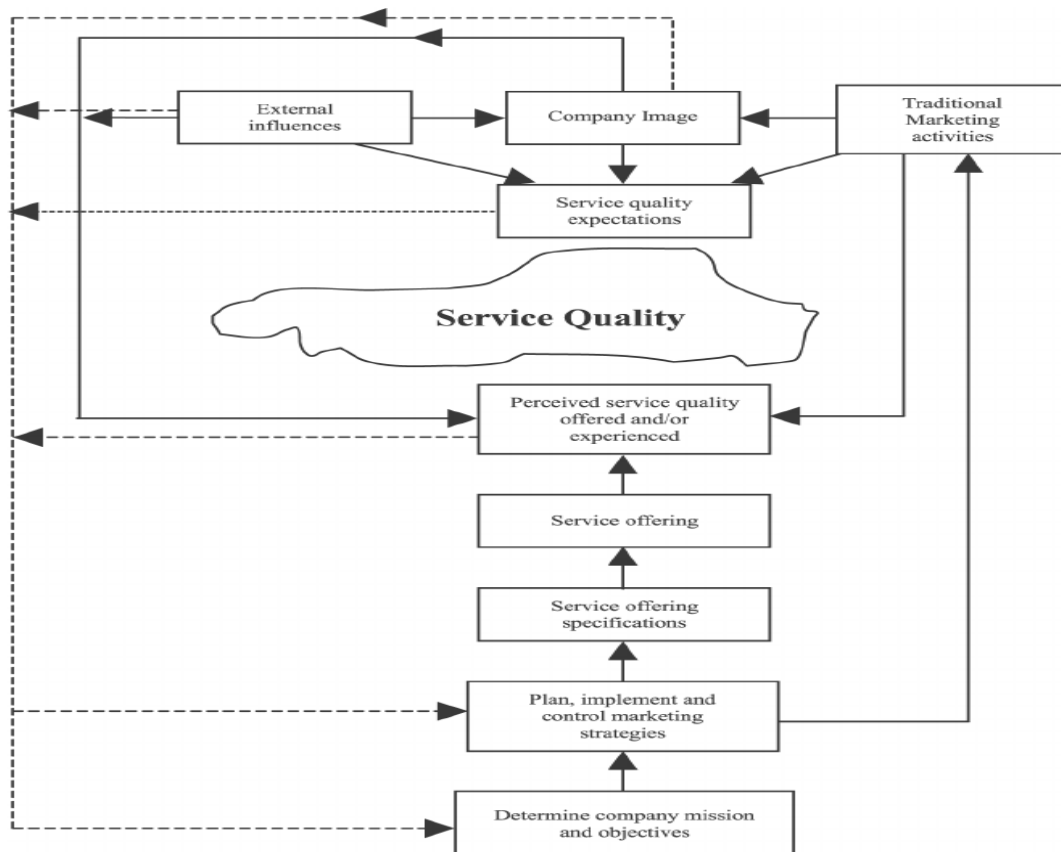
Spreng and Mackoy satisfaction-service quality model (1996). This model (Figure 2.7) attempts to improve understanding of the perceived structure of service quality and consumer satisfaction. This model was modified from Oliver's model (1993). The model highlights the effect of expectations, cognitive performance expectations, desire for congruence and unmatched expectations for overall service quality and customer satisfaction.



Source: Spreng and Mackoy (1996)

Figure 2.7 Spreng and Mackoy Satisfaction-service Quality Model

Brogowicz, Delene & Lyth synthesized model of service quality (1990). Quality of service may exist even if the customer has not used the service but heard about it or heard through advertising or other media. It is necessary to link the perception of potential customers with the quality of service provided with the customer's understanding of the quality of service after they have used the service.



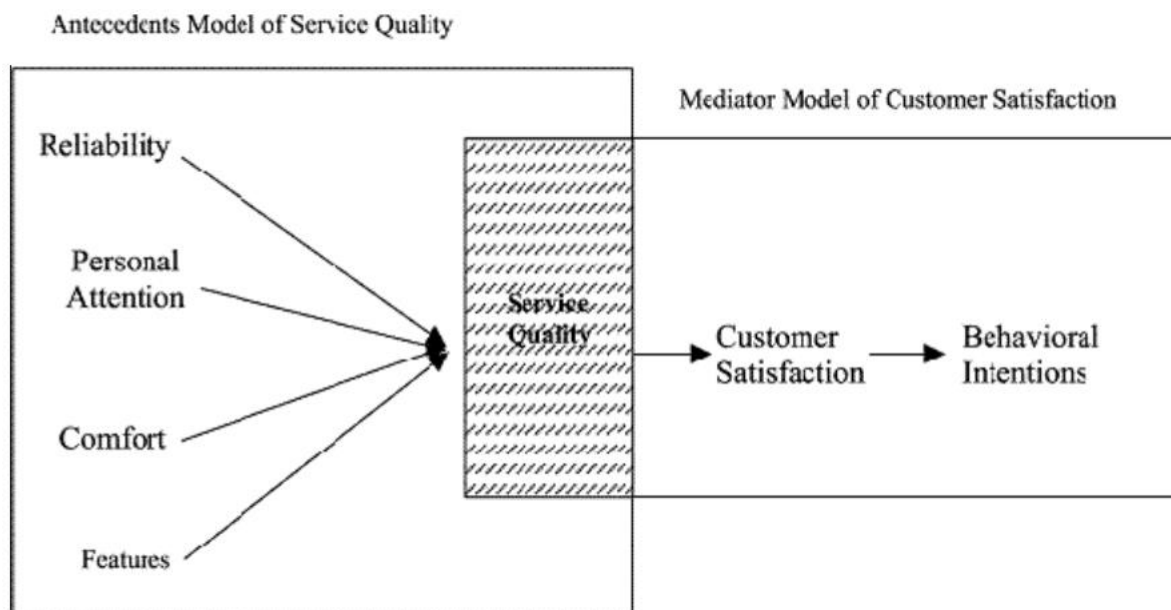
Source: Brogowicz *et al.* (1990)

Figure 2.8 Model of Service Quality of Brogowicz, Delene & Lyth Synthesized

This model (Figure 2.8) integrates the traditional management framework, the design - operation of the service and the marketing activities. The purpose of the model is to identify dimensions related to service quality within the traditional management framework for planning, implementation, and control. This model's three factors are: (1) the company's image, (2) eternal

influences and (3) traditional marketing activities such as factors affecting the technical quality and expected function of the product

Dabholkar's antecedents and mediator model (2000). Antecedents and mediator model (Dabholkar, Shepherd & Thorpe, 2000) is a model (Figure 2.9) that can be considered comprehensive concerning the quality of service. To provide a deeper understanding of service quality concepts, the model considers the antecedents, intermediates, and outcomes of service quality as factors that are considered prerequisites to the better quality of service and the relationship between quality of service with customer satisfaction and the intention of customer behaviour.



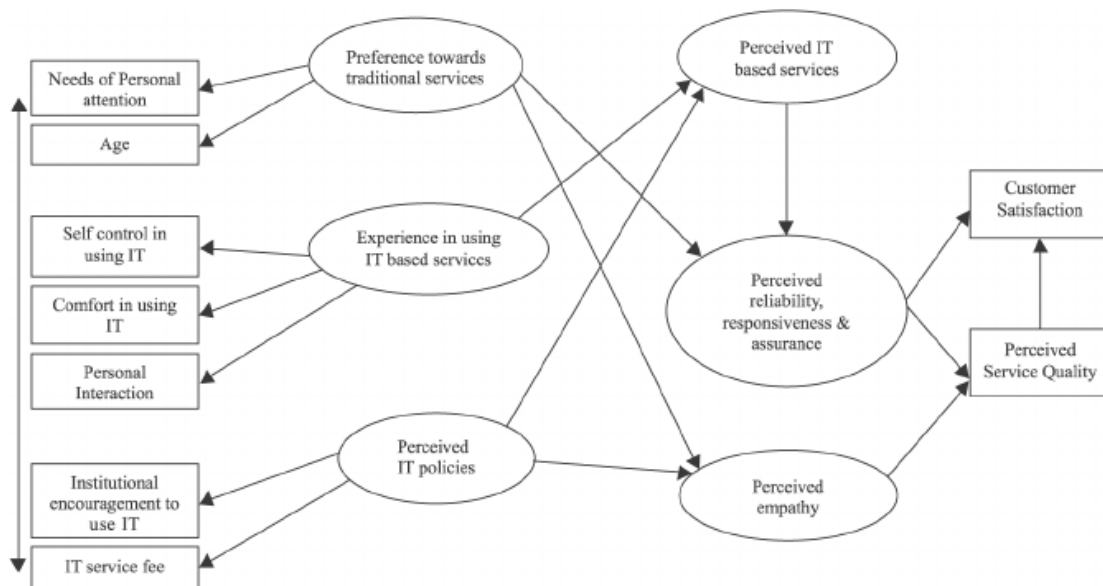
Source: Dabholkar *et al.* (2000)

Figure 2.9 Dabholkar's Antecedents and Mediator Model

Zhu, Wymer, and Chen's information technology-based service quality model

(2002). This model (Figure 2.10) emphasizes the importance of service-based information technology. The structure of IT-based services associated with the quality of service is measured by SERVQUAL (Parasuraman, Zeithaml, & Berry, 1988, 1991). Some critical variables affecting the customer's perspective of IT-based services are identified.

The model focuses on the links between service dimensions measured by SERVQUAL, IT-based service delivery expressions, preferences for traditional services, experience in using IT-based service and IT policies. The impact of these structures on perceived service quality and customer satisfaction is also indicated.



Source: Zhu *et al.* (2002)

Figure 2.10 Zhu, Wymer, and Chen's. Information technology-based Service Quality Model

Firdaus's HEdPERF model (2005). Firdaus (2005) proposed HEdPERF (Higher Education Performance), a model to measure the service quality in the higher education sector by comparing with SERVPERF (HEdPERF-SERVPERF) to access the relative advantages and disadvantages of each instrument and to identify the most superior instrument.

HedPERF scale has six dimensions that are non-academic dimension, academic dimension, reputation, access, program issues, and understanding. Firdaus (2005) described these dimensions as below:

Factor 1: Non-academic dimensions. This factor consists of items that are essential to enable students to fulfil their study obligations, and it relates to duties carried out by non-academic staff.

Factor 2: Academic dimensions. The items that describe this factor are solely the responsibilities of academics.

Factor 3: Reputation. This factor is loaded with items that suggest the importance of higher learning institutions in projecting a professional image.

Factor 4: Access. This factor consists of items that relate to such issues as approachability, ease of contact, availability and convenience.

Factor 5: Programs issues. This factor emphasizes the importance of offering wide ranging and reputable academic programs/specializations with flexible structure and syllabus.

Factor 6: Understanding. It involves items related to understanding students' specific needs in terms of counselling and health services. (p. 575)

Brochado (2009) compared the performance of five service quality measurements in the higher education sector: SERVQUAL, Importance-Weighted SERVQUAL, SERVPERF, Importance-Weighted SERVPERF and HEdPERF. Data were collected by means of a structured questionnaire which had perception items of SERVPERF and HEdPERF scales and expectations items of SERVQUAL scale, both modified to fit into the higher education sector. He concluded that HEdPERF provided the best measurement of higher education service quality.

To summarize, the author created Table 2.2 which summarizes the above models, methodologies of data collection of each one and measurement of satisfaction methodologies of data collection of each one and measurement of satisfaction

Table 2.2 Summary of Selected Service Quality Model Characteristics

Authors	Year	Model	Method of data collection	Scale applied	Measurement of Service Quality
Grönroos	1984	Technical and functional quality model	Survey	Five-point Likert	Functional and technical quality
Parasuraman, Zeithaml, and Berry.	1985	Gap model or SERVQUAL	Survey	Seven-point Likert	Five dimensions
Cronin and Taylor	1992	SERVPERF	Survey	Seven-point Likert	Five dimensions
Brogowicz et al.	1990	Synthesized model of service quality	Theoretical model		Through the planning, implementation and control of technical and functional quality
Spreng and Mackoy	1996	Satisfaction-service quality model	Survey	Seven-point Likert	Through desires, perceived performance, expectations and desires congruency
Dabholkar Shepherd and Thorpe	2000	Antecedent mediator model	Telephonic interviews		Through measurement of reliability, personal attention, comfort and functionality
Zhu, Wymer, and Chen	2002	IT-based model	Survey	Seven-point Likert	SERVQUAL items with perceptions only statements
Firdaus	2005	HEdPERF	Survey	Seven-point Likert	Six dimensions

Conceptual Framework

Beitelspacher, Richey, and Reynolds (2011) introduced the concept of service culture in the retail industry. They defined service culture as “a customer-centric culture aimed at exceeding customer expectations and creating superior customer value through the development of service and performance competencies” (p. 215). Thanks to the customer-centred culture, the outcomes from this work were the development of product quality and the advantages of increased market competition and customer satisfaction. Additionally, they stated that service culture occurs and involves not only the internal organization but also the external stakeholders (customers, suppliers, communities). Similarly, the study of Uprety and Chhetri (2014) assessed the relationship between college culture and students’ satisfaction from the perspective of students, not from the perspective of staff and faculty members.

Hence, after reviewing the literature, the present research is based on this concept as well as combining the SERVQUAL model, which also measures the service quality by the perceptions of international students on the service performances. Generally, the models are measured through the satisfaction factor in the SERVQUAL model and the service experience to assess the quality of services, which determine the satisfaction level of the consumers. The author has synthesized the literature using nine elements: Infrastructure, Service Ability, Responsiveness, Rapport, Student Focus, Safety-Wellbeing, Curricula, Instructors, Course & Program, and these elements are connected with the quality of service culture. These nine elements will be used to consider the relationship between service culture and overall international students’ satisfaction. (Figure 2.11)

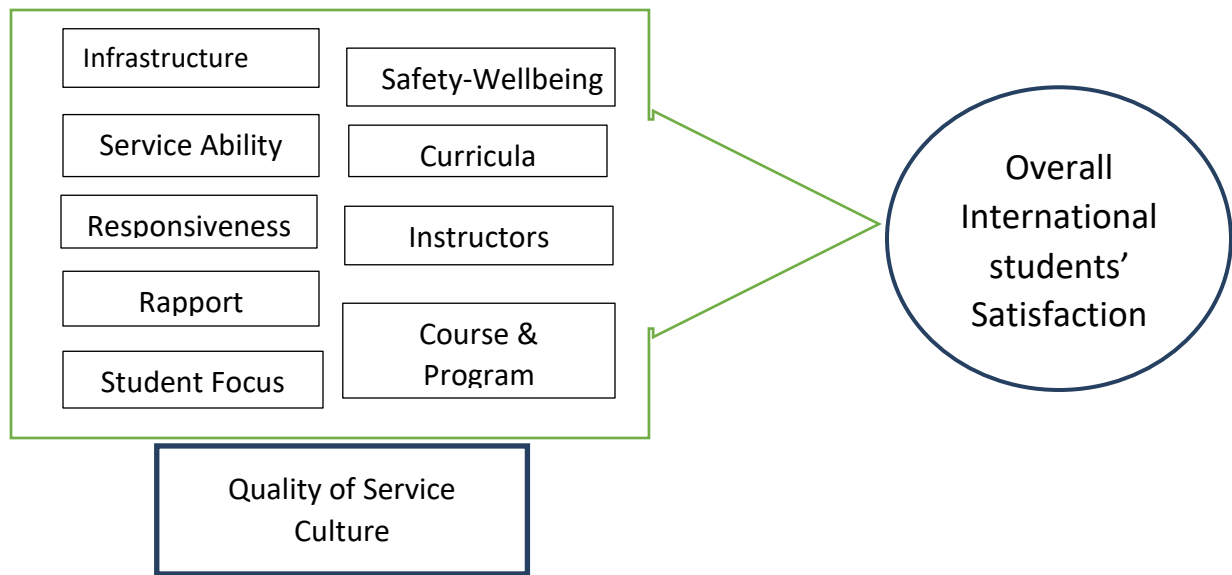


Figure 2.11 Conceptual Framework for University Quality of Service Culture Dimensions and Overall Students' Satisfaction

Summary of Chapter Two

In summary, chapter two introduces the concepts of service culture, service quality and the association between these concepts and international students' satisfaction in universities. The importance of satisfaction in the service organization and in the context of higher education is discussed. The author also develops the conceptual framework that is used to measure the overall international students' satisfaction with the quality of service culture. In chapter three, the author will present the research setting, design, data collection and data analyzing.

Chapter 3

Research Methodology

In chapter one, the author indicated the research problem, and in chapter two, the author reviewed the literature of service culture, service quality, international students' satisfaction, and considered factors that assess the quality of service culture in the context of higher education. While these variables have been studied by various researchers, but they have not been considered from the international students' perspectives nor in a fashion that connects quality service culture to the overall satisfaction of international students. In this chapter, the author discusses the research methodology through the following outline: a description of the study setting, review the research question, the research design, the development survey instrument, data collection methods procedures, and data analysis. In the data analysis section, a reasonable justification for the methods and techniques applied also be provided that are: descriptive analysis, analyzing qualitative data, hypothesis testing in context to determine the relationships between service culture dimensions and overall satisfaction (Pearson's correlation), comparing the mean scores based on demographic variables (analysis of variance), and regression analysis. The reliability, validity of research as well as ethical considerations, are also profiled in this chapter.

Research Setting

This study focused on the satisfaction of international students in a Canadian university, delimited to the University of Saskatchewan international students (approximately 3000 enrolled) in the 2018-2019 academic year (the University of Saskatchewan, nd). Choosing this setting provided for a sample of international students within a confined geographic area thereby

facilitating the collection of data while at the same time meeting the requirements of grouping differences.

Review of Research Questions

This research was designed to explore what factors affect the international students' sense of overall satisfaction, quality of service culture and the relationship between quality of service culture and international students' overall satisfaction. As indicated in Chapter One, there were main research questions and four sub-questions (Table 3.1). Table 3.1 summarizes the sub-questions and the method to answer these questions.

Main research question: What is the level of international students' satisfaction at the University of Saskatchewan, and what factors are affecting them?

Table 3.1 Research Questions and Method Used to Answer Questions

Question	Methods
<i>Question 1:</i> What quality of service variables (dimensions) correlate with the international students' overall satisfaction?	Test of Correlation (Pearson Correlation)
<i>Question 2:</i> Which quality of service culture variables (dimensions) have a positive or negative influence on international students' overall satisfaction?	Test of Correlation (Pearson Correlation)
<i>Question 3:</i> Which demographic variables show significant differences with respect to the quality of service culture and overall satisfaction?	Comparison of Mean Scores (ANOVA)
<i>Question 4:</i> Based on the results analyzed, what are the perceived strengths of quality of service culture at the University of Saskatchewan, and which ones may need improvement?	Regression analyzes, Qualitative Analyzes, Comparison of Mean Scores (ANOVA)

In Table 3.1, the author presented four sub-questions and analyses required to respond to questions. For questions one and two, the author used the correlation test (Pearson Correlation) to test the relationship between Service Culture dimensions and Overall Satisfaction. For question three, the author compared the mean scores of each variable based on the demographic

variables. For the last question, the author applied the regression model, analyzed the qualitative data, as well as the results from question three to provide a comprehensive response to the quest for findings.

Research Design

This study explored international students' sense of quality service culture (via a set of variables or dimensions) and their overall satisfaction. Respondents were those who were enrolled at the University of Saskatchewan. In part, the method of study applied was quantitative only because the theories to be studied were all well-defined and attested in other contexts. Consequently, the nature of the current research consisted mainly of hypotheses testing for the specific population. A survey was developed based on prior studies and adjusted for the contextual relevance. Data were collected and analyzed for hypotheses testing and were discussed by using data generated from SPSS software. Social Sciences Research Laboratories (SSRL) from the University of Saskatchewan supported the author in administering the survey website and producing the excel and SPSS files. The process followed for the study is briefly depicted in Figure 3.1.

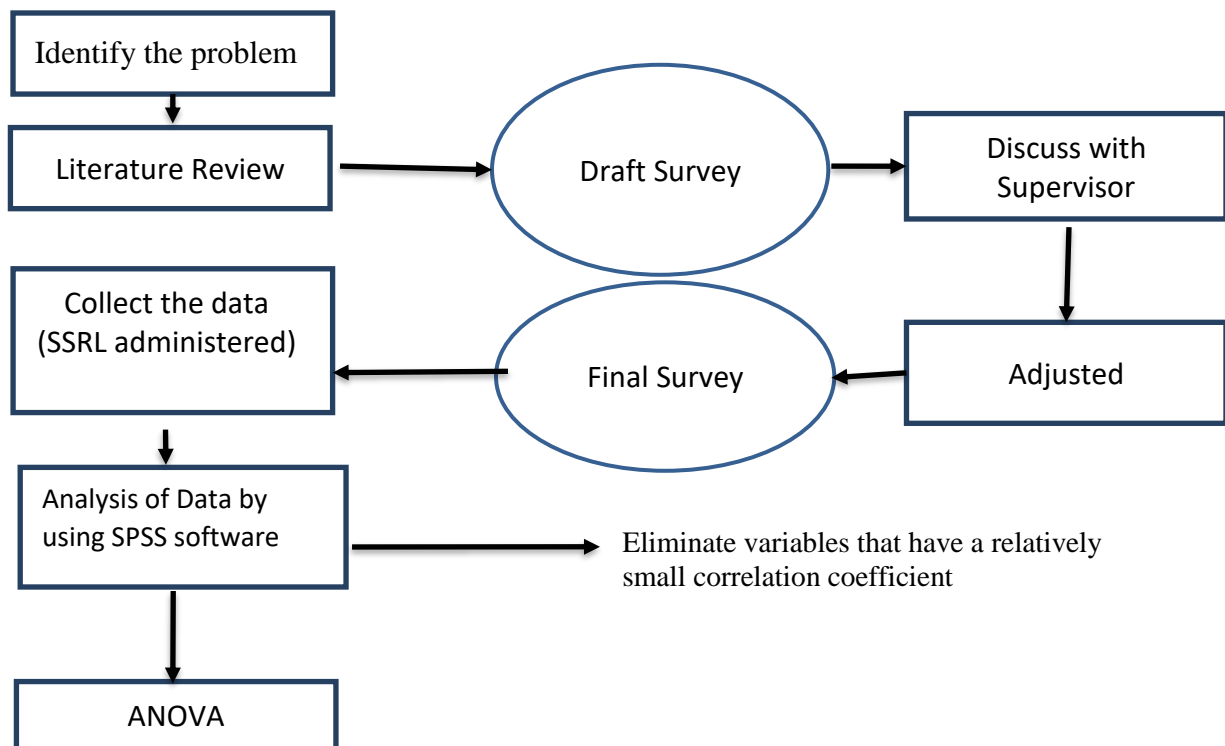


Figure 3.1. Research Process

Figure 3.1 illustrates the research procedures of this study. First, the author identified the problem and conducted the literature review. After that, the draft survey was sent to the supervisor to discuss and adjust. Then, the pilot test was conducted, and feedback was collected in order to adjust the survey. Some items were added and some deleted to adapt to student comprehension and scope of knowledge. The next steps consisted of collecting and analyzing the data. In this part, a survey website was created and administered by SSRL. The author was in charged to collect the data. Due to the lack of time, the author just collected 206 data. Then, SSRL produced the excel and SPSS files. The collected data were coded and uploaded into SPSS 25 software. The descriptive statistic, hypothesis testing (Pearson Correlation), Comparison of Mean Scores (ANOVA) and Regression model were applied to answer the research questions. The hypotheses, which were used to test the relationship of Service Culture dimensions and Overall Satisfaction, are expressed below:

Hypothesis 1: Infrastructure dimension is positively correlated to International students' overall satisfaction

Ho1: There is no relationship between Infrastructure dimension and overall satisfaction of international students.

Ha1: There is a relationship between Infrastructure dimension and overall satisfaction of international students.

Hypothesis 2: Service Ability dimension is positively correlated to International students' overall satisfaction.

Ho2: There is no relationship between the Service Ability dimension and overall satisfaction of international students.

Ha2: There is a relationship between Service Ability dimension and overall satisfaction of international students

Hypothesis 3: Responsiveness dimension is positively correlated to International students' overall satisfaction.

Ho3: There is no relationship between the Responsiveness dimension and overall satisfaction of international students.

Ha3: There is a relationship between the Responsiveness dimension and overall satisfaction of international students.

Hypothesis 4: Rapport dimension is positively correlated to International students' overall satisfaction.

Ho4: There is no relationship between the Rapport dimension and the overall satisfaction of international students.

Ha4: There is a relationship between the Rapport dimension and the overall satisfaction of international students.

Hypothesis 5: Safety dimension is positively correlated to International students' overall satisfaction.

Ho5: There is no relationship between the safety dimension and overall satisfaction of international students.

Ha5: There is a relationship between the safety dimension and overall satisfaction of international students.

Hypothesis 6: Student-focused service is positively correlated to International students' overall satisfaction.

Ho6: There is no relationship between the Student Focus dimension and the overall satisfaction of international students.

Ha6: There is a relationship between the Student Focus dimension and the overall satisfaction of international students.

Hypothesis7: Curricula is positively correlated to International students' overall satisfaction.

Ho7: There is no relationship between the Curricula dimension and the overall satisfaction of international students.

Ha7: There is a relationship between the Curricula dimension and the overall satisfaction of international students.

Hypothesis 8: Instructor is positively correlated to International students' overall satisfaction.

Ho8: There is no relationship between the Instructor dimension and overall satisfaction of international students.

Ha8: There is a relationship between the Instructor dimension and the overall satisfaction of international students.

Hypothesis 9: Course & Program is positively correlated to International students' overall satisfaction.

Ho9: There is no relationship between the Course & Program dimension and the overall satisfaction of international students.

Ha9: There is a relationship between the Course & Program dimension and the overall satisfaction of international students.

H10: The nine elements of quality of service culture are positively related to overall satisfaction.

Ho10: There is no relationship between the quality of service culture and the overall satisfaction of international students.

Ha10: There is a relationship between the quality of service culture and the overall satisfaction of international students.

Research Instrument, Measurement Scale and Development

The model and research survey of the study were modified and adapted from the study of the SERVQUAL model of Parasuraman, Zeithmal, and Berry (1988), HEdPERF model of Firdaus (2005), and Afzal et al. (2010). The review of the literature showed that measurements for both service quality and student satisfaction were well established and had been affirmed many times. The final version of the survey developed for this unique proposal was confirmed after discussion with the supervisor and the conducting of a pilot work. All items used a five-

point Likert scale, which was from numbers 1 to 5 that implied: 1 meaning “strongly disagree,” 2 meaning “disagree,” 3 meaning “neutral,” 4 meaning “agree,” and 5 meaning “strongly agree.”

In general, all of the factors of the original SERVQUAL model remained unchanged, but some observation variables were added. The author conceptualized quality of service culture as being constituted by nine elements: Infrastructure, Service Ability, Responsiveness, Rapport, Safety-Wellbeing, Student Focus, Curricula, Instructor, and Course-Program to verify whether these elements and the aggregate of all nine variables correlated with Overall International Student’s Satisfaction (see Appendix B).

Data Collection

The sample size was related to the analyzing method. In the survey research, the minimum the sample size of 350 was proffered (Creswell, as cited in Mertler, 2016) or ranging from 10% to 20% of the population (Gay, Mills, & Airasian, as cited in Mertler, 2016). Gay, Mills, and Airasian recommended, 20% of the population was adequate (as cited in Mertler, 2016, p. 232). Because the international student population at the University of Saskatchewan was around 3000 students, so 10% of the total population was 300 participants.

Based on the above considerations, the author set the target for the sample population at 300 participants. However, at the end of the survey, the author only collected 206 participants from across colleges and levels of study at the University of Saskatchewan. The criteria for choosing the participants were: International students who were enrolled at the University of Saskatchewan. In order to achieve the target population in this research, the author rented a booth that was operated on the orientation day September 3rd, 2019, for delivering the recruitment flyer (Appendix D). In addition, the poster also was posted on the information boards around the university. The flyer included the information on the research and survey link.

Once the permission was approved, the online posts (PAWS, social media pages) containing the cover letter, survey directions and consent form were sent out (see Appendix A). The posts also contained a hyperlink allowing the participants access to the webpage containing the survey. The participants were asked to click the hyperlink, which forwarded them to the survey website. To answer the survey, they simply submitted those responses electronically. In addition, the draws were used to attract more participants. The result of the draw was announced at the end of the research data collection process. Participants were informed that their participation in this study was voluntary. The participants were informed that they could withdraw anytime if they did not wish to participate, just simply disregarding the email message or not submitting the survey.

The main objective of this study was to analyze the relationship between Service Culture and Overall Satisfaction of international students at the University of Saskatchewan. Due to the time and resources constraints, the author just conducted the international student surveys from August to October 2019. Even though it was hard to control precision, this technique was the cheapest and easiest means to collect the data for a survey (Cooper & Schundler, 2000). The researcher also asked participants to refer to other international students to the survey in a snowballing fashion.

Data Analysis

After the data were collected, the data were downloaded into statistical software SPSS. After coding and cleaning, data were analyzed as these following steps:

Step 1: Descriptive analysis. was performed to examine the representative sample of the population. According to Keller (2009), the descriptive statistics help to present data “in a convenient and informative way” (p. 2) The mean, mode, median, range of scores, percentage

minimum & maximum and standard deviation were measured to summarize the data. At the same time, the demographic variables were analyzed with regard to the frequency and percentage to illustrate the sample population.

Step 2: Analyzing Qualitative Data. Respondents' perceptions of the concepts studied were assessed regarding mean, standard deviations and open-end questions in each dimension. After analyzing descriptive statistics in independent variables and the dependent variable, the author analyzed the open-end questions in each dimension (qualitative data). First, the author aggregated the comments on similar themes and highlighted these themes in different colours to generate concepts. After several read-throughs, the author arranged the themes again and analyzed them in each section of the quality of service culture dimension and overall satisfaction sections.

Step 3: Pearson Correlation- Hypothesis Testing. Correlation Analyses (Pearson) was implemented to evaluate whether the contributing variables for quality of service culture are correlated with the overall satisfaction scale. To help decide whether the hypotheses were rejected or accepted, the researcher chose to examine the significance (p) values (significance of correlation). If the p-value is less than the value of Alpha, the null hypothesis (H_0) will be rejected, which means the alternative hypothesis (H_a) will be accepted. Since the analysis was measured with 95% of the level of confidence, then the alpha would be 5% (i.e., 0.05). Therefore, if the significance value was less than 0.05, then the alternative hypothesis was the one accepted.

According to Hussey and Hussey (1997), the correlation coefficient ranges from -1 to 1 . The coefficients range in value from -1 (a perfect negative relationship) and $+1$ (a perfect

positive relationship). A value of 0 indicates no linear relationship. The correlation degree is described below:

- ± 1 : perfect correlation (positive or negative).
- $\pm 0.90-0.99$: very high correlation (positive or negative).
- $\pm 0.70-0.89$: high correlation (positive or negative).
- $\pm 0.4-0.69$: medium moderate correlation (positive or negative).
- $\pm 0-0.39$: low weak correlation (positive or negative).

Step 4: Comparison of Mean Scores. The author conducted an ANOVA and post hoc examination of means to determine significant differences by demographics. In this research, the author used the one-way ANOVA test to determine if there are significant differences in means by demographic variables (using 0.05 as the threshold).

Step 5: Reliability Cronbach's Alpha analysis. Cronbach's Alpha reliability coefficient is a statistical test of the extent to which the items asked closely (observed variables) in scale relative to each other. Then the correlation coefficient variables - total (item-total correlation) will help to sort out these items which do not contribute significantly to describe the measured concept (Trong & Ngoc, 2005). Note that Cronbach's Alpha measures only the reliability of the scale (including three or more observation variables) rather than the reliability of each observation variable (Tho, 2011, p. 355). The criteria used to assess the reliability test are:

- Corrected Item-Total Correlation > 0.3 variable is satisfactory (Nunnally, 1978).
- The level of the Alpha value: from 0.6 or higher can use in case of new research or new in the context of research; from 0.7 to 0.8 is acceptable; from 0.8 to 1 is good; (Trong & Ngoc, 2005).

Step 6: Exploratory factor analysis (EFA). Exploratory factor analysis (EFA) is a statistical method that increases the reliability of the scale by identifying inappropriate items that can then be removed. Exploratory factor analysis is an interdependence technique that means that there are no dependent and independent variables that rely on correlations between variables. Exploratory factor analysis (EFA) is used to abbreviate a set k of observation variables into a set F ($F < k$) of more meaningful factors. The basis of this reduction is based on the linear relationship of the elements to the original variables (the observed variables). Meyers, Gamst and Guarino (2006) mentioned that in exploring factor analysis, extraction method Principal Components Analysis accompany Varimax rotation is the way most commonly used. The criteria used for EFA are:

Factor loading: A single correlation between variables and factors. According to Hair, Anderson, Tatham and Black (1998, p.111), factor loading is the norm to ensure the true level of Exploratory factor analysis (EFA). The higher factor loading, the more closely related to each other are the variables and factors. To scale to achieve convergence, the value of this ratio must be higher than a factor of 0.5. (Trong & Ngoc, 2005).

- Factor loading > 0.3 is the minimum
- Factor loading > 0.4 is considered important
- Factor loading > 0.5 is practical

The measurement of the acceptance of Kaiser-Meyer-Olkin (KMO) model is a measure of the correlation between the variables and the acceptance for factor analysis. KMO coefficient value is in the range 0 to 1. The value of KMO depends on the sample size, the average correlation, the number of variables and factors. Large KMO values have factorial analysis as appropriate. If this ratio is greater than 0.5, the data set is considered as appropriate to conduct factor analysis (Hair et al., 1998).

Bartlett's test is statistically significant (Sig. <0.05): This is a statistical item used to consider the hypothesis of independent variables as a whole. If this test is statistically significant (Sig. <0.05), the observed variables are correlated in the overall. (Hair et al., 1998).

Percentage of variance > 50%: Represents the percentage variation of the observed variables. If the variance is 100%, then this value tells how much factor analysis explains.

Eigenvalue: The sum of the weights of the variables in a factor column, also called latent root. It represents the degree of variation as explained by one factor. The value eigenvalue of factors must be selected from 1 or higher (Hair et al., 1998).

Step 7: Regression analysis. Regression model is used to determine the impact levels of each Service Culture dimensions on the International Students. The researcher analyzed these variables using regression (multiple) model in SPSS to “predict the outcome from several predictor independent variables”(Field, 2005, p. 144). In the regression model, we consider the following index: Beta Coefficient, Adjusted R squared coefficient, Regression Constant b_0 , Regression coefficients b_n , F-ratio for the model that has been derived and interpreted.

Beta Coefficient (b-values): The standardized regression coefficient allows direct comparison between the coefficients based on their interpretation relationships to the dependent variable (Overall Satisfaction). If the value is positive, we can tell that there is a positive relationship between the predictor and the outcome, whereas negative coefficient represents a negative relationship. According to Field (2005), the b-value of an independent variable indicates to what impact level of this independent variable (one of Service Culture dimensions) was on the dependent variables (Overall Satisfaction) if and only if the effects of all other independent variables are held constant. In other words, the larger the beta, the more influenced that factor compared to other factors in the model when the other variables are held constant.

Adjusted R square coefficient. is to reflect the relevance of the multiple regression model. Adjusted R square indicates the relevance of the research model with meaning how many percents of variability that the independent variables able to explain for the dependent variable. This coefficient can vary from 0 to 1

Regression Constant b_0 . Y value when line $Y = b_0 + b_1 * X_1$ cut this column. The constant regression shows the effects of all other excluded predictor variables in the model.

Regression coefficients b_n . The value of the slope variables in the model. Each coefficient not only shows the relationship between the independent variables and the dependent variable but also between the independent variables to each other.

Multi collinearity (Multi-collinear). Description of the linear relationship between two or more independent variables. If the linear correlation coefficient between two independent variables is 1, it is considered as a completely linear relationship and absolutely no linear relationship if the correlation coefficient between them is 0. Collinear happens when an independent variable is strongly correlated with a group of other independent variables.

Multicollinearity is usually regarded as a problem because it means that the regression coefficients may be unstable. This implies that they are likely to be subject to considerable variability from sample to sample. In any case, when two variables are very highly correlated, there seems little point in treating them as separate entities. (Savatsomboon, 2010, p. 87)

In order to assess multicollinearity, the author used Tolerance and Variance Inflation Factor.

Coefficient Tolerance: Used to measure the linear and multi-collinearity, tolerance values of the variable i is $1 - R^2$. The smaller variable Tolerance value, the more variables are collinear with the other independent variables.

The Variance Inflation Factor (VIF). VIF was calculated by $1/\text{Tolerance}$ that is always greater than or equal to 1. The value of VIF indicates what percentage the variance is inflated for each coefficient. For example, a VIF of 1.9 can be interpreted that the variance of a coefficient is 90% bigger than what would be expected if there was no multicollinearity — if there was no correlation with other predictors. When VIF is high, there is high multicollinearity and instability of the b and beta coefficients and the less reliable the regression results will be. There is no formal VIF value for determining the presence of multicollinearity (Belsley, Kuh, & Welsch, 1980). According to Stephanie (2015), a rule of thumb for interpreting the variance inflation factor:

- 1 = not correlated.
- Between 1 and 5 = moderately correlated.
- Greater than 5 = highly correlated.

In general, if VIF was more than 10, the multicollinearity occurred. However, in some weak models, to avoid the multicollinearity phenomenon, some authors suggested the coefficients of VIF should be below 2 or 2.5. The author chose the VIF benchmark of 2. The autocorrelation did not need to be taken into account since the data to run the model was not a time series, but a cross-over.

Reliability

To ensure the reliability of the instruments, the author applied several models that are well known and used in many previous studies. The researcher used Cronbach Alpha to test the reliability of the survey. As mentioned above, the internal consistency and reliability of the questionnaire was ensured when Cronbach's coefficient alpha was found to be at least 0.6

However, the small size population respondents could reduce the instrument's reliability. So, the researcher also assumed that if an independent researcher replicated this study using the

same data collection instruments, method and a similar sample of international students in the University of Saskatchewan, then the result would not and should not be different.

Validity

The survey was designed from comprehensive relevant literature and in consultation with the supervisor; so, the author believes that both the face and content validity of the instrument was ensured and defensible. Moreover, the subject population was in the low end of the range (206 participants) so the researcher assumed that biases had been avoided, as far as possible. In addition, the history, maturation and environment did not likely affect the research because the survey was administered online and could not discernably change the participants' behaviour.

However, the research may have been threatened to construct validity. Churchill (1979) suggested that construct validity can be tested by assessing convergent and discriminant validity. Hence, according to Yu and Richardson (2015), the author applied exploratory factor analysis for this proposed research. Before using EFA, an initial analysis was run to obtain eigenvalues for each factor in the data. Then KMO test, which is to verify the sampling adequacy for the analysis, and Bartlett's test, which to determine whether the correlation between items was sufficiently significant for EFA, are processed to determine to construct validity and to confirm that the data collected for an exploratory factor analysis were appropriate. As mentioned before, Bartlett's test sig value less than 0.05 and KMO coefficient value larger than 0.5. The factor loading value larger than 0.5 is practical. If not, it means that items are loading on the wrong factors or cross-loading on multiple factors. So, the author deleted these items in the order and re-performed EFA until a simple solution is achieved.

Ethical Considerations

This study was submitted to the Ethics Research Board at the University of Saskatchewan for approval (Appendix H). The researcher also completed the GPS 960.0: Introduction to Ethics and Integrity in order to better understand the responsibilities of research ethics (Appendix G). This research is aligned with policies of the Ethics Board at the University of Saskatchewan. Before responding to the survey, the participants read and agreed via the electrical consent form (Appendix C).

Regarding participant privacy, the participants were anonymous and just responded to the survey online via the Novvox website which was administered by Social Sciences Research Laboratories. Their email and IP address were not collected. The data only was accessed by the researcher, supervisor; and is stored on a password-protected personal laptop, backed up on a safeguarded memory stick. A copy of the recordings of the survey is held by the supervisor of this research for the required period of storage.

There were no anticipated nor inherent risks for the participants. The participants answered the questions voluntarily, and they could withdraw or change responses any time prior to submitting the survey. The benefits of this study for participants include that offering changes that could be the superior services offering for international students in higher education institutions.

Summary of Chapter Three

This chapter has presented the research methodology used to develop and evaluate the theoretical models and the factors that influence international students' satisfaction. The author has discussed the research methods, target population, instrument development, sample size, the procedure of data collection, data analyses tests, reliability, validity, ethical considerations.

Chapter 4

Data Analysis

In Chapter Three, the author presented the research methodology. This chapter presents the results of a survey that was designed to gather the perceptions of international students with respect to the quality of services and test a theoretical model of service quality culture and its relationship to overall satisfaction. Descriptive analyses of the international student responses (n=206) are presented. The content of this chapter includes the following main sections: description of respondent demographics, description of the means and standard deviations for items and dimensions of quality service culture (together with open-ended responses), hypotheses testing (correlation), comparison of mean scores of nine independent variables and dependent variable, ANOVA, the test of reliability Cronbach Alpha, Exploratory Factor Analysis (EFA), and regression analyses which were used to identify factors impacting students' satisfaction and level of impacting. Two hundred and six qualified respondent surveys were used to analysis via SPSS software.

The Description of Respondent Demographics

As mentioned above, a convenient sampling method (n = 206) was used to invite responses to an online survey by international students at the University of Saskatchewan. The results from 206 respondents were aggregated after two months of recruitment. Figure 4.1 shows that the majority of the participants were female students (54.9%) and that 44.2% were male respondents. In terms of the age of international student respondents, Figure 4.2 indicates that the majority of respondents were between the ages of 17-31(79.1%). The age distribution indicates that 29.6% of respondents were between the ages of 22-26 years; 27.7% were between ages of

17-21 years; 21.8% were 27-31 years of age; 13.6% were in the age group of 32-36 year, and only 7.3% of the population was 37 years of age or older (Figure I.1)

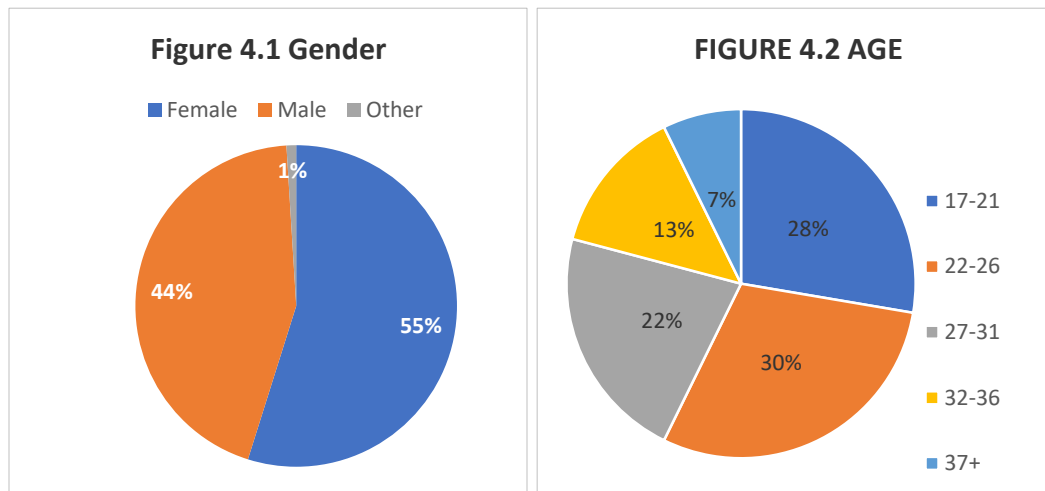


Table 4.1 and Figure I. 3 provide the breakdown of the areas and countries most respondents indicated they had originated. Because of the authors' background which is a Vietnamese graduate student and recruitment potency, the sample population could be affected and not reflect precisely the international student at the University of Saskatchewan.

Most participants were from Asia. The area of East Asia occupied 32.4% percentage of the respondent population. The respondents were comprised of 28% of respondents from West, South and Central Asia, and the third most common origin of respondents was from South America (21.3%). Vietnamese students occupied 17.5% of respondents. Meanwhile, the participants who were from China and India consisted of 13.6% and 12.6%, respectively.

In the Academic Year 2018/2019 snapshot at the University of Saskatchewan (2019), students who are from China occupied the highest percentage of international students, both undergraduate and graduate levels. As indicated, this study is different because the author is from Vietnam and most easily sought the help from Vietnamese students.

Table 4.1 The Areas and Countries of International Student Respondents (highest percentage to lowest percentage of respondent sample)

Respondent Regions	Percent	Respondent countries	Percent
South America	21.3	Vietnam	17.5
East Asia	32.4	China	13.6
Europe	6.8	India	12.6
Africa	10.1	Iran	8.3
West, South and Central Asia	28	Brazil	6.8
Other	1.4	Bangladesh	4.9
		Nigeria	4.9
		Other	31.4
Total	100	Total	100

According to Table 4.2 and Figure I.5, most participants were full-time students and were enrolled in Graduate and Post Graduate Study (58.7%), and 38.3% were full-time undergraduate students. In the University of Saskatchewan Academic snapshot (2019), the total of international grad students is 1603 and undergrad students in 1455, so this study sample is proportioned quite similarly to the reported undergraduate and graduate student populations. In terms of the years that respondents had studied at the University of Saskatchewan, the first and second-year students occupied the majority respondent population (30.6% and 37.4%, respectively), while fourteen percent were in their third year, and 13.1% were in their fourth year. The percentage of respondents who were in their fifth year at the University of Saskatchewan were limited to 4.9% (Table 4.2 and Figure I.4)

Table 4.2: The Enrollment Status and Years of U of S Attendance (n = 206)

Status	Percent	Years	Percent
Full-Time Undergraduate	38.3	1 year or less	30.6
Part-Time Undergraduate	0.5	2 years	37.4
Full-Time Graduate and Post Graduate Study	58.7	3 years	14.1
Part-Time Graduate and Post Graduate Study	2.4	4 years	13.1
		5 years or more	4.9
Total	100	Total	100

Table 4.3 and Figure I.2 illustrates the proportion of schools and colleges wherein the respondents studied. The percentage of students who were enrolled in Art and Science was 34.5%, Engineering 20%, Education 13.1%, and Agriculture and Bioresources students constituted 10.2% of the respondents. In contrast, the rest of the schools and colleges had less than 10 responses and each other school or college occupied fewer than 5% of the total respondent population.

Table 4.3: Schools and Colleges of international students

Colleges and Schools	Percent	Colleges and Schools	Percent
Arts and Science	34.5	School of Public Health	2.4
Engineering	19.9	School of Environment and Sustainability	1.5
Education	13.1	Nursing	1.5
Agriculture and Bioresources	10.2	Kinesiology	1
Edwards School of Business	4.4	Johnson-Shoyama Graduate School of Public Policy	1
Veterinary Medicine	3.4	Language Centre	0.5
Pharmacy and Nutrition	2.9	Other	1.5
Medicine	2.4	Total	100

In summary, the description illustrates some of the characteristics of the respondent sample, showing that responding to international students were mostly from Asian countries and working on graduate degrees. The participants were mostly in the first and second year of their studies in colleges of Art & Science and Engineering. Last, more than half of the participants are female and 58 percent of participants were under 30 years old.

Variables and Measurement Review

For this survey, the respondents were asked to represent their viewpoints on a Likert 5-point scale, ranging from 1 to 5; wherein 1 represented "strongly disagree," 2 meant "disagree," 3 had the meaning of "neutral," 4 meant "agree," and 5 meant "strongly agree." To facilitate descriptions in the sections to follow, there were evaluative words used, aligned to Table 4.4

Table 4.4 Evaluations of Mean score

Mean	Evaluative Language
Below 3	Low
3 to 3.5	Average
>3.6 to 4	Medium
>4.1 to 4.5	High
>4.6 to 5	Very high

There were nine independent variables representing dimensions of quality service culture, including Infrastructure, Service Ability, Responsiveness, Rapport, Safety, Student Focus, Curricula, Instructor, Course & Program and one dependent variable: Overall Satisfaction.

Infrastructure dimension of student service culture. The first dimension of the student service culture construct was Infrastructure. The construct was comprised of four items, measured with the Likert 5-point scale. These four items were used to measure campus environment, learning spaces, and digital facilities. Most of the variables in the Infrastructure dimension were rated as High. In this dimension, the standard deviation coefficients of these items are around 0.8, and the aggregate infrastructure is 0.65. It can be translated that the mean score of these items was in the range of 3.5 to 5. Based on Table 4.4, the agree levels of international students in this dimension is from Average to Very High, and there is no Low level.

Table 4.5: The descriptive statistics for Infrastructure

	N/%		Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
This campus environment is visually attractive (1)	205	Percent	1.9	0.5	5.8	41.3	50	4.4	0.79
The learning spaces on campus meet international standards (for example: rooms are warm in winter and air-conditioned, as need (2)	205	Percent	1.5	2.9	9.2	44.2	41.7	4.2	0.85
The campus libraries, computer rooms, self-study areas meet my needs as a student (3)	204	Percent	1.9	1.9	8.3	44.2	42.7	4.3	0.84
Websites, servers, campus alerts, digital forums, and email communications (PAWS and Blackboard systems) provide timely information (4)	205	Percent	2.4	0.5	8.7	44.7	43.2	4.3	0.83
Aggregate Infrastructure	205							4.3	0.65

As shown in Table 4.5 and Figure I.6, the first item related to campus environment (Infrastructure 1) received a large percentage of 91.3 % of support from the respondents who agreed and strongly agreed that the University of Saskatchewan had an attractive campus environment. Some comments about the university campus from the open-ended comments included: "The University is huge and has tunnels connecting the entire university as a whole, which is really impressive." or "I particularly enjoy the green campus environment and the equipment available at classrooms."

However, according to comments, winter was a massive issue for the students who responded. The temperature of the classrooms in winter was too cold or too warm. Some quotations describing the temperature issues are as follows:

- Room sometimes is too cold for me in the summer.
- Some of the lecture halls can be TOO warm in winter. The "airplane room" [Thorvaldson Room 271] made me sick it was so hot in there.
- The classes in the Art building are cold in the winter.
- The rooms are cold during summer and winter which makes me to carry a jacket around all the time.
- Some classes are colder than others, and some may feel very hot at times - suffocating hot.

Some of the learning spaces can be a bit uncomfortable in the winters because they are not always warm. This causes a lot of students to get sick and not feel comfortable in the schools' spaces.

In terms of Libraries and Learning Space Items (Infrastructure 2 and 3), despite the high mean score, student respondents suggested that there should be additional learning space in the library. A student said, "*Library doesn't have enough space for all students... Also theft is the biggest issue*"

Besides space, another student also mentioned about the opening hours: *“The library lacks a good space for students to study without interruptions. Libraries opening hours are too short compared with other universities.”*

Finally, students expressed concern about the old facilities and equipment. They believed that the equipment needed to be upgraded. A student shared that *“Mceown Park buildings- Seager Wheeler Wollaston hall- are too old and unsafe. The elevator is frequently stuck.”* While another respondent said: *“Hard chairs in the older classrooms need to be upgraded; older buildings need upgrading.... Last, in term of websites, internet, student stated that the wifi connection is still slow and blackboard system is not designed for smartphones.”*

In summary, infrastructure in the University of Saskatchewan received the “high” satisfaction ($M = 4.3$) from the participants. Most of participants agreed and strongly agreed that the University of Saskatchewan campus is attractive, and facilities meet the standard. However, international students suggested that the University of Saskatchewan should increase the learning space and upgrade the residence facilities.

Service ability dimension of student service culture. The Service Ability dimension is based on nine items, measured with the Likert 5-point scale. The nine items are used to measure the trustworthiness, reliability and enthusiasm of service providers (faculty members and staff). Besides, the last item, Service Ability 9, is used to measure the capacity of the International Student Office- ISSAC.

Table 4.6: The descriptive statistics for Service Ability

	N/%		Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
Support staff/administrators display sincere interest in working with me to solve any problems that arise (1)	206	Percent	1.5	4.4	10.7	47.1	36.4	4.1	0.87
Faculty members display sincere interest in working with me to solve any problems that arise (2)	206	Percent	1.0	3.4	10.7	51.5	33.5	4.1	0.81
When I, or a fellow student, have had problems, support staff/administrators have provided helpful and reliable advice (3)	206	Percent	0.0	5.8	12.1	48.5	33.5	4.1	0.83
When I, or a fellow student, have had problems, faculty members have provided helpful and reliable advice (4)	206	Percent	1.9	3.9	16.5	44.2	33.5	4.0	0.91
In my experience, U of S support staff/administrators are trustworthy (5)	206	Percent	0.0	4.4	14.1	47.6	34.0	4.1	0.80
In my experience, faculty members are trustworthy (6)	206	Percent	2.4	2.9	15.5	46.1	33.0	4.0	0.91
Student services on campus are delivered as promised (7)	205	Percent	0.5	4.9	14.1	49.0	31.1	4.1	0.83
Self-service through “Connection Point” (website) provides easy access to services (i.e., ordering transcripts) (8)	201	Percent	1.5	3.9	25.7	38.3	28.2	3.9	0.92
International student services (ISSAC) provides helpful services (9)	201	Percent	2.9	2.9	19.4	35.9	36.4	4.0	0.98
Aggregate Service Ability	206							4.1	0.64

From Figure I.7 and Table 4.6, The Service Ability items were perceived to be at most a high level, except for the self-service, which were rated at medium level. Overall, the mean score of the Service Ability dimension was just over 4. When the author analyzed the data and the open-end question, the standard deviation of the items related to the service ISSAC was high at 0.98. This result indicated that 72.3% of respondents were satisfied with the ISSAC but that there was a broader set of perspectives held by students on this item than on other items. In the

open-end question, the majority of comments pointed to the agreement that ISSAC staff members were helpful, friendly and trustworthy. A student said that "I had a problem with my landlord and the ISSAC team help me a lot to solve it. I'm very grateful." Moreover, another shared: "ISSAC support staff/administrators care about students and are very trustworthy and helpful."

However, they considered the ISSAC staff were not as good when it came to the delivery of immigration information. A graduate student indicated that:

ISSAC showed their immigration incompetence when I [bring] forward questions with respect to off campus working or summer breaks for a graduate student. They did not show any efforts to deal with their lack of expertise at all. My graduate friends experienced the same issues.

Another student also said:

ISSAC provides helpful info, I agreed. But they should clarify some services student can not consult them, ie. Immigrant services. When we (students) sent them an email after the workshop to ask (as they told them to do so), they basically told us should email CIC, ridiculous!

The third comment shared the experience:

In addition, based on my experience, the immigration advisers at ISSAC were enthusiastic to help but their knowledge about immigration policies had not been updated enough to provide sufficient support.

The results also showed the satisfactory experiences of the students with respect to faculty members and staff who were seen as helpful and resourceful (including ISSAC staff).

The following comments indicated that: *"The faculty members are so friendly and are all willing to help me"* and *"Every faculty did a great job, especially my co-supervisors. I am so much grateful to their support not only for my program but also for my personal life."* Nonetheless, others showed concerns that indicated that there was low interest in helping international students among staff and faculty members. Some felt unwelcome in their departments. A student

said: *“Support staff/administrators display low interest in working with me to solve any problems that arise. They need better training in communications and interpersonal skills.”* A second respondent added, *“During my time, I did not feel the warmth from my department staff.”* There were expressions that it was hard or that there had been a struggle in their seeking help from faculty members. A student wrote, *“...Faculty members seem to be busy with their internal problems; which [meant] they do not spend adequate time for graduate students.”* Another student shared the experience with the online courses:

Faculty members were not all seen in the same light. On-campus and off-campus students do face some problems. *“My courses are online, and I never get chance to see instructors having so many doubts to clear about the content assignments as emails the only source is not sufficient. Being new to the place it is extremely tough to gather information without guidance of proper instructions. I have struggled with my course to find all details as instructor was new and sessional.”* For online courses, at least some way of scheduling meeting should be provided. Another student expressed their viewpoint that:

Many faculty members even end up putting the international students in their basements/properties as renters, which is another form of exploitation, there must be a strict policy against any direct or indirect financial gains by faculty members from the international students.

There were also comments regarding the residence/housing service at the University of Saskatchewan, such as that it was perceived that staff had displayed a lack of interest in helping students and *“put a lot of pressure on students.”* According to one student:

The department also seem not to have any human face towards students during move in and move outs periods. Residence contracts can expire several days before the end of a calendar month, yet students cannot even stay an extra day without being charged. I think student residence services have to look at these things again.

Another participant said:

The only service on campus that in my opinion really need improvement is housing. Staff are not very interested in helping students and housing facilities are either too expensive (grad house) or lacking pest control and management (McEown Park).

In summary, the participants expressed satisfaction with the Service Ability dimension.

The staff and faculty had shown that they were trustworthy, reliable and empathetic when interacting with international students. However, respondents commented that they sometimes received the low interests and support from staff and faculty members. Moreover, the finding showed that given the special need for immigration information (i.e., Study permits, VISAs), international students expected more helpful resources from ISSAC. Last, some respondents indicated some uncomfortability with housing/residence services on the campus.

Responsiveness dimension of student service culture. The responsiveness construct was comprised of five items, measured with the Likert 5-point scale. The five items were used to measure the quality of student assistance, feedback mechanism and the ability to handle student requests. The average mean score of the Responsiveness was 3.9 (medium level) and the four out of five items in Responsiveness received mean scores equal to or below 4.

Table 4.7: The descriptive statistics for Responsiveness

	N/%		Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
There are appropriate and readily available ways for me to express my feedback on student services, if I choose (1)	206	Percent	1.9	11.2	28.6	40.3	18.0	3.6	0.97
I am confident that support staff/administrator have the capacity to work with me when and if problems arise (2)	206	Percent	1.5	3.4	14.1	55.3	25.7	4.0	0.82
I am confident that faculty members have the capacity to work with me when and if problems arise (3)	206	Percent	1.9	2.9	13.6	54.4	27.2	4.0	0.84
My requests (or inquiries) are responded to in an appropriate and timely fashion by support staff/administrators (4)	206	Percent	1	7.3	11.7	52.9	27.2	4.0	0.88
My requests (or inquiries) are responded to in an appropriate and timely fashion by faculty members (5)	206	Percent	1.9	4.9	16	47.6	29.6	4.0	0.9
Aggregate Responsiveness	206							3.9	0.71

Data analysis (Figure I.8, Table 4.7) showed that the first item Responsiveness 1, which was used to scale the feedback mechanism, had the lowest mean 3.6 and the highest standard deviation (0.97). This means that the respondents were more widespread in their perspectives with this item compared to the other items of Responsiveness. There were only 120 respondents (58.3%) who were satisfied with the feedback mechanisms, whereas the other questions had nearly 80% of participants satisfied. In the open-end question, most participants revealed that in their experience, it was hard and time-consuming to get the feedback/responses from the staff and faculty members (sometimes there was no response). A student stated: *“There have been many times in which I have emailed faculty members or administrators and have not received information or an email for weeks, even up to a month.”* Similarly, a student complained that it took a half of the year to get the letter of offer *“I had to wait more than 6 months to get the letter of offer while UBC or other colleges just 1-2months.”* Another participant also shared: *“I have requested some maintenance in my dorm room and have had no response whatsoever. One time I email the USSU about the difference in the order of my name but never got a reply.”*

For the capacity of student assistance, both support staff and faculty members similarly received the same mean score of 4. Over 81 percent of participants were satisfied with the ability of staff and faculty members when they had met the problems. However, in the two last items (Responsiveness 4 and 5), which were used to measure the timelines of response, and even the percentage of satisfied respondents were the same; there were more participants dissatisfied (answering “disagree” and “strongly disagree”) than the capacity of student assistance items (Responsiveness 2 and 3). There were around 5 % of participants answering “strongly disagree” and “disagree” in Responsiveness 2 and 3, whereas the percent of 7-8% of participants responded “strongly disagree” and “disagree” in total for Responsiveness 4 and 5.

In summary, the result shows that the participants appeared to be satisfied with the capacity of staff and faculty members. However, the feedback mechanism and time-consuming response were concerns expressed by participants.

Rapport dimension of student service culture. The Rapport dimension was represented by five items with the Likert 5-point scale. These five items were used to measure the perceived quality of faculty members' academic credentials, their knowledge and rapport with students. Generally, the Rapport dimension received the high scores from the students, with the average mean score of 4.0, and each item of the Rapport dimension had the mean score higher than 4 (Figure I.9, Table 4.8).

Table 4.8: The descriptive statistics for Rapport

	N/%		Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
The quality of University of Saskatchewan support staff/administrators is high (1)	206	Percent	1	5.8	16.5	46.1	30.6	4.0	0.89
The quality of University faculty members is high (2)	206	Percent	1.9	2.9	16.5	47.1	31.6	4.0	0.88
I have found support staff/administrators to be friendly and courteous (3)	206	Percent	0	1.5	10.2	50	38.3	4.3	0.69
I have found faculty members to be friendly and courteous (4)	205	Percent	0.5	1	12.6	50.5	35.0	4.2	0.73
In my experience, support staff/administrators are well trained and knowledgeable on rules and procedures (5)	206	Percent	1	4.4	16.5	45.6	32.5	4.0	0.87
Aggregate Rapport	206							4.1	0.66

In terms of rapport behaviour (Rapport 3 and 4), the students indicated that the support staff/administrators and faculty members were friendly and courteous. These two items garnered the highest means in the Rapport dimension, a mean score of 4.3 for staff/administrators and 4.2 for faculty members. More than 85% of participants agreed and strongly agreed that faculty members and staff were friendly and courteous. A student said, “*All the faculty members are so*

friendly to anybody.” Another student added that “*As an international student, I believe that the majority of the faculty members that I have encountered try to be friendly.*” There was 78 percent of participants who perceived that the support staff and administrators were well trained and had a thorough knowledge of the rules/procedures (Rapport 5). The participants rated this item at a high level with a mean score of 4.0.

Not only that, the quality of faculty members, support staff/administrators (Rapport 1 and 2) were perceived to be high such that this helped the students to build excellent rapport with the university. However, the numbers of participants who agreed and strongly agreed with the quality of faculty members and support staff/administrators were less than the rapport behaviour. In Rapport 1 and 2, there are around 76-78% of respondents answering “agree” and “strongly agree” with these two items that are less than Rapport 3 and 4 (over 85%). Moreover, the mean scores of Rapports 1 and 2 were 4.0, whereas Rapport 3 and 4 are 4.3 and 4.2, respectively. Nonetheless, there were a few negative comments offered concerning the staff and faculty members. A respondent suggested that there should be more support from staff and administrators. Another student indicated that:

Professor A, I was at his class one time. I had the impression that he preferred making jokes instead of providing knowledge. In the end, he was the only professor who didn't get warm applause from students; guessed that I was not the only person disagree with his teaching method.

In summary, the Rapport construct was one of the high-level expressions of agreement with the items among the service culture dimensions. The staff and faculty member had done well in building rapport with the international students as well as demonstrated their excellent quality.

Safety-Wellbeing dimension of student service culture. The Safety-Wellbeing construct was represented by five items, and these were measured with the Likert 5-point scale.

These five items were used to measure the degree of international students' agreement with respect to security, health care, recreation and entertainment. Generally, the Safety received the medium score from the students (M=3.9). There were only two out of five items ranked above 4 (Safety 1 and 2), while the rest were rated at medium level (Figure I.10, Table 4.9).

Table 4.9: The descriptive statistics for Safety-Wellbeing

	N/%		Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
The security and safety measures that are in place at this university provide me with confidence that I'll be okay (1)	206	Percent	1	4.4	13.6	48.1	33	4.1	0.852
I am sure that my personal and academic information is kept confidential (2)	206	Percent	0.5	1.9	17	49	31.6	4.1	0.775
The health care services provided by this University are excellent (3)	206	Percent	2.9	5.3	29.1	41.7	20.9	3.7	0.951
This University's recreational facilities available to students are excellent. (4)	206	Percent	2.4	5.8	17.5	43.7	30.6	3.9	0.966
This university campus provides ample opportunities for student entertainment (5)	201	Percent	1.9	12.1	18	44.2	21.4	3.7	1.005
Aggregate Safety-Wellbeing	206							3.9	0.656

The majority of participants (over 80%) expressed satisfaction with the security and information security. Nonetheless, the health care services, as well as entertainment opportunities, both received the lowest mean score of 3.7. These low mean scores might be explained by the unfamiliarity of international students with the health care system. It may be that the responding international students had not discovered the entertainment activities afforded them. These two concerns were indicated in the open-end question after this dimension.

In terms of recreational and entertainment activities (Safety-Wellbeing 4 and 5), the percentage of participants who agreed and strongly agreed with these two statements was around 70 percent. Especially, the entertainment opportunity (Safety-Wellbeing 5) had the least agreement from participants, compared to other safety items. Responding students suggested that the university should offer more sports or activities. As well students suggested that an upgrade of the PAC gym would be good. Notably, a comment stated that:

I believe that a major problem for international students is feeling of isolation. The university has some events and recreational activities but they are very limited. Especially during spring and summer when mostly international students are around campus, the majority (almost all) the events and activities will stop.

In terms of health care services (Safety-Wellbeing 3), 63 per cent of participants agreed and strongly agreed with the quality of health care service and a third of participants answered neutral. Students frequently expressed concern about insurance and doctors' appointments in the open-end question. One such comment was that "*Appointments take a lot of time, and even doctors are always under rush.*" While another international student suggested that:

I feel as though we should hire instructors that also care about the student's well-being or at least train the already hired professors to understand that some students need extra assistance in learning or need to understand mental health issues as it affects many students.

One student expressed his/her concern or understanding that health insurance was not accessible for those enrolling for online courses:

Though online courses do not require you to visit campus but still health insurance should be provided for all students. I didn't get it though in my email it was mentioned you will be provided with dental and health insurance because of my online study. Its not fair.

In summary, the participants were confident with the security and safety on campus and their information as well. There were slightly over 80% of participants agreed and strongly agreed with Safety-Wellbeing 1 that they were confident with the security and safety measure.

Similarly, 80.6% of respondents agreed and strongly agreed that their information was kept confidential. The mean score of these two items were 4.1 (High Agreement). However, the degree of agreement of participants in the health care service, recreation and entertainment were medium. International students expressed their concerns about the limit of access to the health insurance, doctor appointment and recreational events.

Student Focus dimension of student service culture. Student Focus is based on five variables, measured with the Likert 5-point scale. The five variables were designed to measure the quality of the supportive, accessible and equity in the University of Saskatchewan under the perceptions of international students. From the responses, it was also evident that students rated this dimension at a medium level with a mean score of 3.8. (Figure I.11, Table 4.10)

Table 4.10: The descriptive statistics for Student focus

	N/%		Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
In my experience, office and access hours for services and facilities are convenient. (1)	206	Percent	1	7.8	20.4	47.6	23.3	3.8	0.903
Specialized services for international students at the University of Saskatchewan are excellent (2)	206	Percent	2.9	6.8	31.1	38.8	20.4	3.7	0.972
I have experienced fairness and impartiality at this University (3)	206	Percent	1.9	12.1	19.9	41.7	24.3	3.7	1.02
I feel there is freedom to express my opinions on this campus (4)	206	Percent	2.9	5.8	15.5	47.6	28.2	3.9	0.965
This University facilitates and promotes student organizations (5)	201	Percent	1	1.9	19.4	49	26.2	4.0	0.8
Aggregate Student Focus	206							3.8	0.713

In terms of office and access hours (Student Focus 1), 70.9% of respondents agreed to some extent and 20.4 % of respondents are neutral. In the open-end question, students suggested the services hour closes at 4:30 which is too early as some class finish at 4:30 pm. A student said *“Operational hours are inconvenient for students because a lot of lectures can go to about 4:30pm”*

Meanwhile, Student Focus 2 received the lowest mean (3.7) and only 58% of participants satisfied with this item. The specialized services for international students revealed concern from some of the participants. A student shared that even though they had received guidance from an office they were still struggling. Another indicated that the email or information was not useful:

Sending an email isn't specialized service for international students. International student's office should be more active; operating various events to allow domestic students to feel close with foreign students. Cultural difference, personal difference should be taken into account, however, my learning method is different than discussing Canadian education system, a lab instructor once treated me so bad; she thought I was selfish. Participating in discussion always distracts me; it's who I am...

In terms of fairness and impartiality (Student Focus 3), 66% of respondents agreed to some extent with this item. However, it is noted that the standard deviation of this item is highest (1.020.) among the items of the dimension. This is an indication of wider views on this item than on other items in this dimension of quality services. From the open-end question, there were eight responses which reported on issues related to fairness and impartiality. International students shared experiences that they were treated unfairly or unequally in terms of services and tuition fees compared to the domestic students. An international student shared that the faculty members did not provide equal opportunities: *"As an international student, I believe that the majority of the faculty members that I have encountered try to be friendly but they do not provide equal opportunities for me compared to domestic students."*

A student said:

Some faculty members (who are naturalized Canadians) do not treat international students (from the same country faculty member was born or once lived) the same as Canadian students. Those faculty members also pass personal comments, in the absence of an effective complaint mechanism, the international student ends up staying silent.

In terms of not only services but also financial issues, international students shared their viewpoints that they did not have much the opportunity of scholarships and funding like the domestic students. The participants indicated *“There are too many scholarships that you can't access as an international student and considering the difficulties of differential rates and lack of access to loans that is extremely unfair.”* or *“Those limited funds offered by the university are mostly for permanent residents.”* Another student questioned the difference of allocation of funding/scholarship resources among the schools or colleges: *“As an international student in the College of Education, I find it unfair that many departments offer funds and scholarships for their competent students but my department. Is Education an unimportant subject?”*

Some students also compared themselves with the domestic students who paid lower tuition fees. Reporting on this comparison, students said: *“As far as fees/tuition I think they are unfairly high...International students have it far worse as far as the costs go. Not only is tuition higher but so is the living costs of being in a new country”* and *“there should be equity and fairness in treating international students. i.e. no double fees...”*

To conclude, the international students perceived the quality of Student Focus dimensions at the medium level. There is a lack of focus on the needs of international students or enough attention paid to solving the requirements, reflections, and feedback from these students. The two items related to fairness and specialized international services were subject to the lowest of mean scores for this dimension of quality services.

Curricula dimension of student service culture. The Curriculum factor is based on four items measured with the Likert 5-point scale. These items were used to measure the extent of

agreement or disagreement of international students with respect to context of curricula, teaching methods, class schedule, assessment and grading. All the items in this dimension of Curricula were rated as Medium (Figure I.12, Table 4.11)

Table 4.11: The descriptive statistics for Curricula

	N/%		Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
In my experience, the course curricula are up to date (1)	206	Percent	1.9	5.8	25.2	46.1	20.9	3.8	0.91
The learning materials provided by the instructors are excellent (2)	206	Percent	2.4	5.3	25.7	44.2	22.3	3.8	0.93
In my experience, the assessment and the grading of course work by faculty is done fairly (3)	206	Percent	1.5	5.3	20.4	51.5	21.4	3.9	0.86
The times of the classes are well scheduled. (4)	206	Percent	1	6.8	21.8	48.5	21.8	3.8	0.88
Aggregate Curricula	206							3.8	0.71

As consumers of higher education, 67% of respondents agreed and strongly agreed that the course curricula were up to date. However, 52 out of 206 participants (25.2%) reported a neutral level and nearly 8% percentage of respondents rated that the curricula as old-fashioned. As can be seen from the table, the indexes of the learning material item (Curricula 2) are also nearly similar to the first item. In the open-ended question, an international student gave the insights that the curricula were overloaded for graduate students:

The course curricula is also overloaded for graduate students. Many Ph.D. students have to take many courses before even doing their qualifying and comprehensive exams in addition to presenting and defending their proposals before even applying for ethics approval....

While other students reported that the curricula were massive, and the professors did not follow the curriculum or did not hand out the learning material: “*The assignments included are too many one in each week*” or

I have crossed upon many professors in the computer science major which did not follow their curriculum. Also, anyone who takes a course with C, does not get any learning material as he says that he should not tell provide us with slides as we are university students.

As regards the grade and assessment system (Curricula 3), 66.5% of responses agreed and strongly agreed that the assessment and the grading of course work by faculty was done fairly. In the explanation, there were different viewpoints on the grading system. A student shared that there is unequal scoring as marking by graduate students who had different opinions:

Some of assessments would be done by graduate school students; everyone has different opinion; marking is pretty opinion based. If I have generous marking person, I would end up with good marks. If I have strict marking person, I would ended up with okay score.

While another student stated that *"My tutors gave the fair grading work towards all the students in class."* Some students complained that professors did not provide feedback just a grade, for example: *"They just give you a grade with no explanation or feedback attached to it. I find this lazy and unprofessional."*

The items – class schedule (Curricula 4) was also rated at the medium level ($M = 3.8$), and also received the sharing from international students. They reported that the class schedules were sometimes not suitable for students such as: *"only classes every Saturday," "don't have evening course/degree,"* or *"many classes in early morning."*

Last, the author found it interesting that some students complained that it was hard for them to read the cursive handwriting style. *"Instructors should not use cursive handwriting; I cannot read as an international student," "Wish professors and lecturers don't use cursive writing style because I am an international student...," "Please avoid using cursive writing style."*

In summary, the international students perceived the quality of curricula in the University of Saskatchewan at the medium level. In each item of this dimensions, there were

around 70 per cent of participants who agreed or strongly agreed with the quality of curricula items. In the open-end questions, the fairness in grading, feedback and cursive handwriting were most frequency mentioned as explanatory data.

Instructors dimension of student service culture. The instructors play an important role in quality service delivery and determine or at least contribute to the progress of their students in an institution. In this research, the instructor dimension was based on five items that were used to measure the quality of instructors, their expertise, and teaching style. These items were rated as high level (mean = 4.1) by the participants.

Table 4.12: The descriptive statistics for Instructors

	N/%		Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
My instructors have thorough knowledge of the course/subject content (1)	206	Percent	1.5	1.9	11.2	49.5	35.9	4.2	0.81
My instructors regularly provide opportunities for students to ask questions (2)	206	Percent	0	1.5	14.6	44.2	39.8	4.2	0.75
My instructors communicate the course subject material effectively (3)	206	Percent	1	2.9	13.6	52.4	30.1	4.1	0.8
My instructors make the course learning as interesting as possible (4)	206	Percent	1.5	4.4	21.8	45.1	27.2	3.9	0.89
My instructors provide me with timely feedback about my progress (5)	206	Percent	1	4.9	26.2	42.2	25.7	3.9	0.89
Aggregate Instructor	206							4.1	0.69

The data from the Table 4.12 and Figure I.13 show that the first item (Instructors 1) and the second item (Instructor 2) both had high score of 4.2. In terms of knowledge of the instructors, 85.4 % of the respondents agreed and strongly agreed that their instructors at the University of Saskatchewan were knowledgeable. In the open-end question, some comments portrayed students' perceptions of this item: *“My professors are expert in their area, and I am*

very grateful for having this opportunity. They are also very humble and patient.” and “I have always had knowledgeable and intelligent instructors, even those who were not the greatest at transmitting said knowledge.” However, a respondent mentioned that some *"lack huge amount of experience"* and *"Some of them are new who don't have much idea about online courses and esp. language instructors make students struggle more."*

In terms of the opportunity to ask the questions, the item Instructor 2 was rated at 5 (Strongly Agree) by 39.8% of the students and 4 (Agree) by the remaining 44.2%. Interestingly, no one rated this item as strongly disagree. However, three respondents shared that the opportunity to ask the questions depends on the instructors. The below quotations described the students' experiences:

- Not all the instructors provide opportunities to ask questions or provide details on the course materials.
- There are some instructors that do care about the students and engage in learning but others do not....
- Honestly depends on the instructor. I have had some who don't provide many good learning opportunities and some who's primary focus is on the students' learning.

Most students (82.5%) were satisfied with the communication of instructors (Instructor 3). There were 52.4% of students who responded that their instructors had communicated the course subject material expertly, and 30.1% of students strongly agreed. Also, 72.3% were satisfied with how instructors made the class as exciting as possible (Instructor 4). Nevertheless, in the explanation, some comments indicated that a few instructors did not deliver the exciting classes. A student shared that *"Many instructors don't want a change. Coming in classroom and reading materials were the way they were taught. It does not have to be the same way to the future generation. We need a change."* and another added *"Sometimes it's hard to make the class interesting."*

The last thing is the feedback provided by the instructors; there was a decrease in the percentage of students' degree of agreement with the items, compared to other items in this dimension, just 67.9 %. This item also had the lowest mean score (3.9) and was rated as medium level. Similar to Responsiveness 1, all of the comments indicated that all were not content with their experiences and they seemed to have the concern for the lack of feedback. Some student stated that:

- Not all instructors provide feedback at all, which is bad for learning
- As I mentioned before, not getting feedback from some of my professors was a disappointment
- They can be more helpful with international students; I don't want to say that be different with us. Just provide a little bit more feedback

In summary, the international student perceived the instructors and their teaching style at the University of Saskatchewan as being at a high level of quality. Mostly participants agreed to some extent with the knowledge and expertise of instructors as well as their communication. However, students were slightly less agreed with the extent of instructors' classroom engagement and the feedback from their instructors.

Course and Programs dimension of student service culture. The course and programs are considered the products which international student purchased from the University of Saskatchewan. The Course and Programs dimension is based on six items measured with the Likert 5-point scale. These items were used to measure the satisfaction of international students in the context of content and organization of programs, structure of course, tuition fees and scholarship opportunity. A half items of these dimensions were rated above 4 (high level); while there were two items, related to tuition fee and scholarship, which rated below the 3.5 (average) level.

Table 4.13: The descriptive statistics for Course & Programs

	N/%		Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
In my experience this University provides programs that have flexible structures (i.e., full time, part time, distance learn. (1)	206	Percent	1	2.9	17.5	44.2	34.5	4.1	0.85
This University provides a wide range of programs with specialties. (2)	206	Percent	1	2.4	17.5	42.2	36.9	4.1	0.85
The courses that I have taken have been well-structured to achieve the stated learning outcomes. (3)	206	Percent	1.5	5.8	20.4	43.7	28.6	3.9	0.92
In my experience, course objectives are clearly stated in the syllabus. (4)	206	Percent	1.9	2.4	13.1	49	33.5	4.1	0.86
The tuition and fees assessed by this University for my course and program are reasonable. (5)	201	Percent	14.6	16.5	20.9	32	13.6	3.1	1.28
There are sufficient opportunities for international student scholarships at this University. (6)	201	Percent	13.1	19.9	20.4	27.7	16.5	3.2	1.3
Course & Program	206							3.8	0.76

From Table 4.13 and Figure I.14, the results indicated that the Course had the lowest mean score compared to the other dimensions. The three items, Course 1, 2, 3, had around 70-80% of students indicating some extent of agreement, but Course 5 and Course 6 were rated at the average level. Responses to Course 5 and Course 6 on the survey revealed that the students were less agreeable with respect to the tuition fees and scholarship dimensions of the university.

In terms of tuition fee statements, more than half of respondents (52%) rated the item from strongly disagree to neutral. The insights from the explanations have the theme that the tuition fees were considered too expensive and that this expense kept rising: "*Tuition fees are getting higher and higher for both domestic and international students.*" one student said.

Another graduate student also compared with the USA that:

As opposed to the U.S.A, graduate students do not have to pay for tuition and fees and health insurance is also provided. Here at USASK you have to pay \$895 monthly for tuition and fees if you choose the installment plan. After deduction of rent, phone and

food you find yourself with no savings at all. You can work 20 hrs per week that's an option but how can you do that when you are overwhelmed with research.

Meanwhile, another student shared that they had to pay the tuition fees in the spring/summer *“it is a challenge paying tuition in summer when one is not attending classes or even have any serious academic work to do.”*

Similar to the item of tuition fee, the data of statement of funding and scholarship revealed that there was a third of respondents disagreed and strongly disagreed; while 20, 4% of participants students answered neutrally. The five insights of international students described the disappointment of the funding and scholarship. They referred to the lack of access to loans, scholarship and funding, which apparently was given priority for Permanent Residents and to Canadian citizens but was unfairly provided for international students. Among the explanations discussed, the following stood out:

- There are not sufficient scholarships for international students. Most of the bursaries and scholarships are focused at landed immigrants and Canadian citizen.
- Despite good marks (I got into vet school, so they're pretty good) and commitment to community engagement, I have received no scholarships, college of agriculture could do more for international undergraduates.
- International grad students do not have as much funding opportunities as the PR and citizen-students. This is a big issue, because the tuitions are rising but the funds are not increased.

In summary, there were gaps in mean scores in this dimension of quality services. International students were agreeable to items related to course content, program organization and structure. However, they were less agreeable with items that connected to the tuition fee and scholarship. For the lower mean scores of these two items, it might be that the international students have to pay higher tuition fees and there are fewer scholarships for which international students are eligible.

Independent variables summary. In a nutshell, the overall quality of service culture was ranked at the low end of high level (just over medium level) with a mean score of 4.0. From Table 4.14 and Figure 4.3, it can be seen that the international students had a general agreement with items related to infrastructure, service ability, rapport and instructors. However, there were three dimensions which had the mean score less than the average mean of the dependable variables: Student Focus, Curricula and Course (the lowest).

Table 4.14 Descriptive Statistics for Independent Variables: A Summary

Quality Service Dimensions	N	Mean	Std. Deviation
Infrastructure	205	4.3	.654
Service ability	206	4.1	.639
Responsiveness	206	3.9	.711
Rapport	206	4.1	.657
Safety	206	3.9	.656
Student Focus	206	3.8	.713
Curricula	206	3.8	.714
Instructor	206	4.1	.694
Course & Program	206	3.8	.757
Overall Quality Service Culture		4.0	

Overall Satisfaction: Dependent Variable. The dependent variable - Overall Satisfaction is based on five variables and measured with the Likert 5-point scale. These five variables are designed to measure the overall satisfaction of international students, including the ability of retention and referral. The mean score of this dimension was 3.8, which is closest to the medium level (Figure I.15, Table 4.15)

Table 4.15: The descriptive statistics for Overall Satisfaction

	N/%		Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
Overall, I am satisfied with my study experiences at the University of Saskatchewan (1)	206	Percent	1.9	5.8	12.6	51	28.6	4.0	0.908
I would recommend the University of Saskatchewan to my friends, family, and colleagues (2)	206	Percent	3.4	5.3	15	43.2	33	4.0	1.002
The quality of study at the University of Saskatchewan has met my expectations in most regards (3)	206	Percent	1.9	5.3	18	43.2	31.6	4.0	0.942
Knowing what I do, through experience, if I had a choice to experience university all over again, I would enroll in the University (4)	206	Percent	5.8	9.2	19.9	37.9	27.2	3.7	1.135
The "brand name reputation" of this University is high (5)	206	Percent	4.9	12.1	28.6	36.4	18	3.5	1.072
Satisfaction	206							3.8	0.883

As a result of the overall satisfaction factor (Satisfaction 1), most students (79.6%) were satisfied with the University with a mean score of 4.0. Also, 76.2% agreed that they would recommend the University of Saskatchewan to their friends, relatives, and so on. However, when asked whether or not they would enroll the University again, 65.1% agreed that they would be inclined to re-enroll, and the standard deviation of this item was 1.1, which is the highest standard deviation item among the items related to this variable. Of course, this indicates that students' responses to this item were more varied than responses to other items. In the interests of an explanation, there were three respondents who shared that they would enroll if the tuition fees were cheaper. The following quotations displayed some typical answers:

- I would do my undergrad all over again here if I didn't have to pay the tuition.
- Regret that I started the grad school here, financial situation is the biggest problem
- I would enroll in the University again, but I would work to get done my degree the fastest and cheapest that I could.

In addition, when asked the perspective of the brand name reputation of the University of Saskatchewan, 54.4 % of respondents agreed and strongly agreed that it was high, whereas the rest of the respondents strongly disagreed, disagreed or registered neutral level responses. A student said: “*Brand name reputation*” is high in Canada but not in other countries.”

In summary, international students’ overall satisfaction was at the medium level. There was also a relatively high standard deviation (nearly 1), compared to dimensions of quality service culture. Though some respondents were had lower levels of agreement with satisfaction items related to the university, most of the international students were satisfied. Figure 4.3 provides an overview of the comparison of mean scores in Service Culture and Overall Satisfaction.

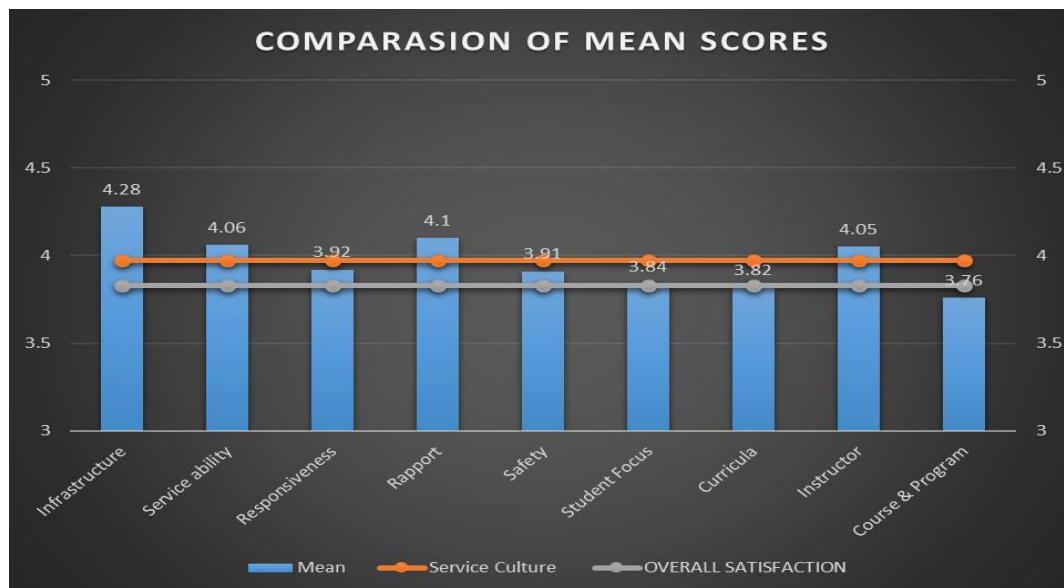


Figure 4.3 Comparison of Mean Scores of Service Culture dimensions and Overall Satisfaction

From the above figure, the mean score for overall satisfaction was lower than the mean score of quality service culture. The Course and Program dimension had the lowest mean score and were lower than Overall Satisfaction. Infrastructure, Rapport, Service Ability and Instructors had mean scores higher than the Quality of Service Culture and Overall Satisfaction scores.

Whereas, Responsiveness, Student Focus, Curricula and Course and Program had lower mean scores compared to Quality Service Culture and Overall Satisfaction.

Testing the Relationships between Dimensions of Quality Service Culture and Overall Satisfaction

As mentioned in chapter three, the Pearson correlation coefficient can be used to summarize the strength of the linear relationship between two data samples. Therefore, in order to test the relationship between the quality of service culture dimensions (*Infrastructure, Service Ability, Responsiveness, Rapport, Safety, Student focus, Curricula, Instructor, and Course*) and *Overall Satisfaction* of international students, Pearson Correlation was applied in this research. ANOVA was used to test the research question, “*What is the level of international students' satisfaction at the University of Saskatchewan, and what factors are affecting them?*”

Hypothesis 1: Infrastructure dimension is positively correlated to International students' overall satisfaction

Ho1: There is no relationship between Infrastructure dimension and overall satisfaction of international students.

Ha1: There is a relationship between Infrastructure dimension and overall satisfaction of international students.

Table 4.16: The correlation between Infrastructure and Satisfaction

		Infrastructure	Satisfaction
Infrastructure	Pearson Correlation	1	.344**
	Sig. (2-tailed)		.000
	N	205	205
Satisfaction	Pearson Correlation	.344**	1
	Sig. (2-tailed)	.000	
	N	205	206

Table 4.16 shows the analysis of the relationship between Infrastructure and overall student satisfaction of the students. This table shows that the significance is equal to .000. According to the rule, if significance is less than alpha ($0. < 0.05$), then we rejected the null hypothesis. Since the p-value (sig.) was less than 0.05, we can say that there is evidence to infer that the alternative hypothesis is correct. In other words, there is a relationship between Infrastructure and Overall international students' satisfaction. The correlation between Infrastructure and Overall international students' satisfaction is constituted by a weak positive correlation of 0.344. Even though the relationship between the two variables is weak, it is still positive.

Hypothesis 2: Service Ability dimension is positively correlated to International students' overall satisfaction.

Ho2: There is no relationship between the Service Ability dimension and overall satisfaction of international students.

Ha2: There is a relationship between Service Ability dimension and overall satisfaction of international students

Table 4.17: The correlation between Service Ability and Satisfaction

		Service Ability	Satisfaction
Service Ability	Pearson Correlation	1	.695**
	Sig. (2-Tailed)		.000
	N	206	206
Satisfaction	Pearson Correlation	.695**	1
	Sig. (2-Tailed)	.000	
	N	206	206

Table 4.17 presents the result of the analysis of the relationship between Service Ability dimension and overall satisfaction of international students. The p-value (sig.) was less than

0.05, so the null hypothesis (H02) is rejected. We can say that the relationship was a highly significant relationship between the quality service culture dimension of Service Ability and overall satisfaction of international students. The correlation between the Service Ability dimension and overall student satisfaction was demonstrated with a moderate positive correlation of 0.695. Therefore, quality in the Service Ability dimension was positively correlated to student satisfaction.

Hypothesis 3: Responsiveness dimension is positively correlated to International students' overall satisfaction.

Ho3: There is no relationship between the Responsiveness dimension and overall satisfaction of international students.

Ha3: There is a relationship between the Responsiveness dimension and overall satisfaction of international students.

Table 4.18: The correlation of Responsiveness and Satisfaction

		Responsiveness	Satisfaction
Responsiveness	Pearson Correlation	1	.695**
	Sig. (2-Tailed)		.000
	N	206	206
Satisfaction	Pearson Correlation	.695**	1
	Sig. (2-Tailed)	.000	
	N	206	206

Table 4.18 presents the analysis of the relationship between the responsiveness dimension and overall satisfaction of international students. As a result, p-value (sig.) is .000, which is less than 0.05 ($0.000 < 0.05$), so the null hypothesis H03 is rejected. The correlation coefficient between the Responsiveness dimension and overall satisfaction of international students was a moderate demonstration of a positive correlation of 0.695. Therefore, while no causal inferences

are drawn here, there is a positive relationship between the quality of the Responsiveness dimension and overall satisfaction of international students.

Hypothesis 4: Rapport dimension is positively correlated to International students' overall satisfaction.

Ho4: There is no relationship between the Rapport dimension and the overall satisfaction of international students.

Ha4: There is a relationship between the Rapport dimension and the overall satisfaction of international students.

Table 4.19: The correlation of Rapport and Satisfaction

		Rapport	Satisfaction
Rapport	Pearson Correlation	1	.724**
	Sig. (2-Tailed)		.000
	N	206	206
Satisfaction	Pearson Correlation	.724**	1
	Sig. (2-Tailed)	.000	
	N	206	206

The result of Table 4.19 presented the analysis of the relationship between the Rapport dimension and the Overall satisfaction of international students. Since the p-value is less than 0.05($0.000 < 0.05$), we rejected the null hypothesis H04; we can say there was a highly significant relationship between the Rapport dimension and the overall satisfaction of international students. The correlation between Rapport and Overall Satisfaction was represented by the positive correlation of 0.724. So, perhaps an increase in the quality of the Rapport dimension might increase the overall satisfaction of international students. Whether this is the case, the two constructs are positively related.

Hypothesis 5: Safety dimension is positively correlated to International students' overall satisfaction.

Ho5: There is no relationship between the safety dimension and overall satisfaction of international students.

Ha5: There is a relationship between the safety dimension and overall satisfaction of international students.

Table 4.20: The correlation between Safety and Satisfaction

		Satisfaction	Safety
Satisfaction	Pearson Correlation	1	.639**
	Sig. (2-Tailed)		.000
	N	206	206
Safety	Pearson Correlation	.639**	1
	Sig. (2-Tailed)	.000	
	N	206	206

Table 4.20 shows the analysis of the relationship between the Safety dimension and overall satisfaction of international students. The p-value is 0.000, which was less than 0.05($0.000 < 0.05$), so the null hypothesis H05 is rejected. The relationship between the safety dimension and overall satisfaction of international students was highly significant. The correlation between safety dimension and overall student satisfaction may be described as a moderately positive correlation of 0.639. Therefore, the Safety dimension positively correlated with Overall Satisfaction

Hypothesis 6: Student-focused service is positively correlated to International students' overall satisfaction.

Ho6: There is no relationship between the Student Focus dimension and the overall satisfaction of international students.

Ha6: There is a relationship between the Student Focus dimension and the overall satisfaction of international students.

Table 4.21: The correlation of Student Focus and Satisfaction

		Student Focus	Satisfaction
Student Focus	Pearson Correlation	1	.691 **
	Sig. (2-Tailed)		.000
	N	206	206
Satisfaction	Pearson Correlation	.691 **	1
	Sig. (2-Tailed)	.000	
	N	206	206

The result shows the analysis of the relationship between the Student Focus dimension and the overall satisfaction of international students. Because the p-value of the Student Focus dimension is 0.000 less than 0.05, the null hypothesis H06 is rejected. So, there is a positive relationship between the Student Focus dimension and the overall satisfaction of international students. The correlation between these two dimensions is 0,691. Therefore, quality in the Student-Focus dimension was positively correlated to student satisfaction.

Hypothesis 7: Curricula were positively correlated to International students' overall satisfaction.

Ho7: There is no relationship between the Curricula dimension and the overall satisfaction of international students.

Ha7: There is a relationship between the Curricula dimension and the overall satisfaction of international students.

Table 4.22: The correlation of Curricula and Satisfaction

		Curricula	Satisfaction
Curricula	Pearson Correlation	1	.610**
	Sig. (2-Tailed)		.000
	N	206	206
Satisfaction	Pearson Correlation	.610**	1
	Sig. (2-Tailed)	.000	
	N	206	206

The result presents the analysis of the relationship between Curricula dimension and the overall satisfaction of international students. As the p-value $0.000 < 0.05$, the null hypothesis is rejected, and there is a highly significant relationship between Curricula dimension and overall satisfaction of international students. The correlation between Curricula and Overall Student satisfaction was represented as a positive correlation as 0.61.

Hypothesis 8: Instructor is positively correlated to International students' overall satisfaction.

Ho8: There is no relationship between the Instructor dimension and overall satisfaction of international students.

Ha8: There is a relationship between the Instructor dimension and the overall satisfaction of international students.

Table 4.23: The correlation between Instructors and Overall Satisfaction

		Instructor	Satisfaction
Instructors	Pearson Correlation	1	.608**
	Sig. (2-Tailed)		.000

	N	206	206
Satisfaction	Pearson Correlation	.608**	1
	Sig. (2-Tailed)	.000	
	N	206	206

The above table showed the p-value was 0.000, which was less than 0.05, so the null hypothesis H08 was rejected. The correlation between the Instructor dimension and overall satisfaction of international students was a moderate positive correlation of 0.608. Therefore, it is concluded that the instructor dimension correlated positively to the overall satisfaction of international students.

Hypothesis 9: Course & Program is positively correlated to International students' overall satisfaction.

Ho9: There is no relationship between the Course & Program dimension and the overall satisfaction of international students.

Ha9: There is a relationship between the Course & Program dimension and the overall satisfaction of international students.

Table 4.24: The correlation between Course and Satisfaction

		Course & Program	Satisfaction
Course & Program	Pearson Correlation	1	.716**
	Sig. (2-Tailed)		.000
	N	206	206
Satisfaction	Pearson Correlation	.716**	1
	Sig. (2-Tailed)	.000	
	N	206	206

As the results indicate, there was a positive relationship between the Course & Program dimension and Overall Satisfaction of international students at the University of Saskatchewan (p-value $0.00 < 0.05$, the null hypothesis Ho9 was rejected). The correlation between Course &

Program and Overall Satisfaction of international students was represented by a positive correlation of 0.716.

Hypothesis 10: The nine elements of quality of service culture are positively related to overall satisfaction.

Ho10: There is no relationship between the quality of service culture and the overall satisfaction of international students.

Ha10: There is a relationship between the quality of service culture and the overall satisfaction of international students.

Table 4.25: The correlation of Aggregated Dimensions Quality Service Culture and Overall Satisfaction variables

		Service Culture	Satisfaction
Service Culture	Pearson Correlation	1	.796**
	Sig. (2-Tailed)		.000
	N	206	206
Satisfaction	Pearson Correlation	.796**	1
	Sig. (2-Tailed)	.000	
	N	206	206

The result of Table 4.25 presents the analysis of the relationship between the quality of service culture and the overall satisfaction of international students. The Quality Service Culture was calculated by the average mean of nine dependable dimensions (3.97). Since the p-value was less than 0.01($0.000 < 0.05$), the author rejected the null hypothesis H010. The result also indicated that there was a highly significant relationship between the quality service culture (aggregate of dimensions) and overall satisfaction of international students at the University of Saskatchewan, [$r(206) = 0.796$, $p = 0.00$.] In a nutshell, there is a relationship between the positive regard for quality service culture and international students' overall satisfaction.

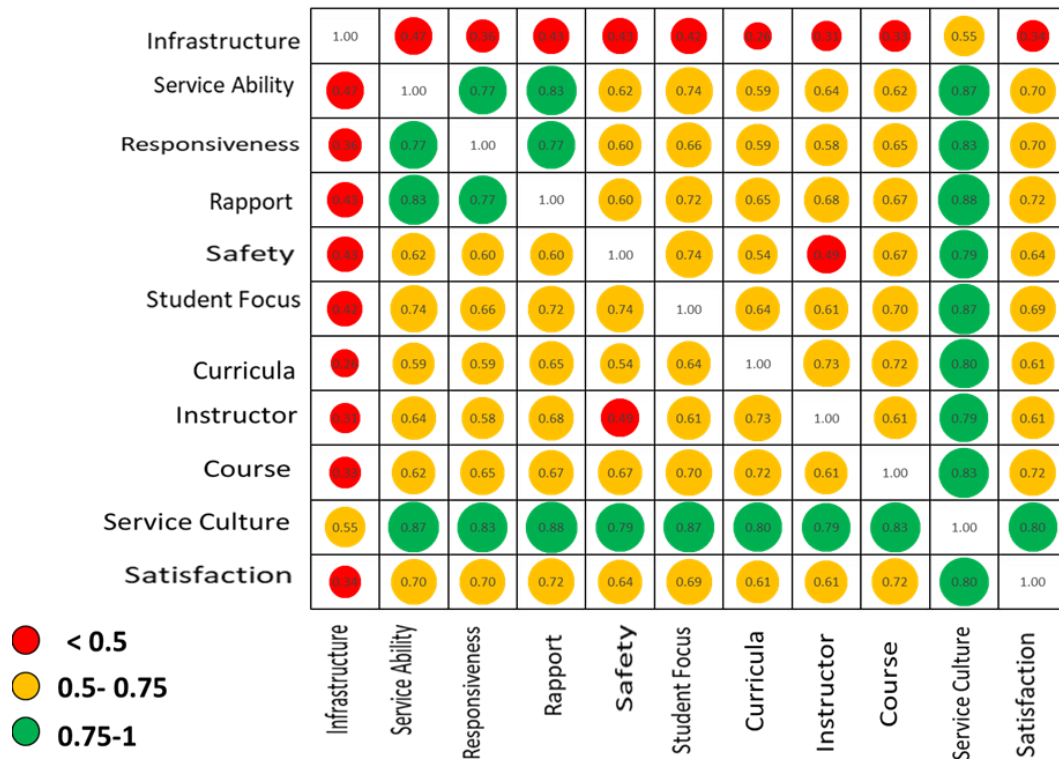
From the above results, it is noted that all the Pearson Correlation index of each dimension is strong ranging from 0.6 to 0.75 except the Infrastructure. The correlation of Infrastructure and Overall Satisfaction, as well as the correlation of infrastructure and each dimension, is weak. Hence, the author tried to eliminate this dimension from the aggregate quality service culture construct. So, the new service culture (Service Culture 2) had a new mean score of 3.93. The p-value was less than 0.05 so there was a highly significant relationship between the new service culture and overall satisfaction. The level of this correlation was 0.803, which was higher than the level of correlation of the old service culture and overall satisfaction. Therefore, the dimension of Infrastructure might not have a critical part in the overall satisfaction of international students.

Table 4.26: The correlation of New Quality Service Culture and Overall Satisfaction

		Service culture 2	Satisfaction
Quality of Service Culture 2	Pearson Correlation	1	.803**
	Sig. (2-tailed)		.000
	N	206	206
Overall Satisfaction	Pearson Correlation	.803**	1
	Sig. (2-tailed)	.000	
	N	206	206

In a nutshell, Figure 4.4 provides a visualization of the correlation between Quality Service Culture dimensions and Overall Satisfaction. Each dimension of the service culture correlated positively with the overall satisfaction of international students. The service culture also related positively to the overall satisfaction of international students.

Figure 4.4: The Correlation and Degree of Relationship Service Culture dimensions and Overall Satisfaction



Among the dimensions, the Rapport dimension had the most robust relationship with the overall satisfaction of international students. The second and the third-place relationships were held by Course and Responsiveness dimensions, respectively. Nonetheless, the Infrastructure dimension had a relatively low relationship with the international students' overall satisfaction, and the correlation index was also weak (see Appendix E, Table E.1).

The Comparison of Means for Each of Nine Dimensions and Overall Satisfaction Scale, Based on Demographic Variables (ANOVA)

The author compared the means of each demographic variable and used ANOVA to analyze the effects of demographics on variable means with overall satisfaction and the quality of service culture.

The comparison of means with dimensions and Overall Satisfaction based on gender. In Table 4.27, we display the analyzed perception of service quality variables and satisfaction by gender. Ninety-one female respondents had scored higher mean in Infrastructure, Service Ability, Responsiveness, Rapport, Curricula, Instructor, whereas 112 male respondents had scored higher in Safety and Student Focus.

Table 4.27: The Comparison of Means with Dimensions And Overall Satisfaction Based On Gender

	Female	Male	Other	Total
Infrastructure	4.3	4.3	4.8	4.3
Service Ability	4.1	4.0	4.8	4.1
Responsiveness	3.9	3.9	4.8	3.9
Rapport	4.1	4.1	4.9	4.1
Safety	3.9	3.9	4.8	3.9
Student Focus	3.8	3.9	4.8	3.8
Curricula	3.9	3.8	4.0	3.8
Instructor	4.1	4.0	4.0	4.1
Course	3.8	3.7	4.6	3.8
Satisfaction	3.9	3.7	4.8	3.8

The one-way analysis of variance ANOVA was calculated (Appendix E, Table E.2) to compare the effect of gender on international students' satisfaction in service culture dimensions and overall satisfaction. Because the alpha level of each dimension and overall satisfaction was higher than 0.05, there were no significant differences between perceptions of gender groups regarding quality service culture dimensions and overall satisfaction.

Overall, the result shows that gender does not have any significant effect on satisfaction in each dimension and overall satisfaction. However, the female group did seem more satisfied with their university compared to the male cohort, although not statistically significant.

The comparison of means with dimensions and Overall Satisfaction based on age. In Table 4.28, in terms of Quality Service Culture dimensions, the students who were over 27 years old tend to be more satisfied with Infrastructure, while the students who are from 17-26 years olds tend to be more satisfied with Service Ability, Responsiveness, and Rapport. As shown, the respondents who were among the age group 17-21 and the age group of 37+ had a higher mean score in Overall Satisfaction compared to the age group of 22-36, although this was not statistically significant.

Table 4.28: The Comparison of Means with Dimensions and Overall Satisfaction Based On Age

	17-21	22-26	27-31	32-36	37+	Total
Infrastructure	4.2	4.3	4.3	4.4	4.4	4.3
Service Ability	4.1	4.2	4.0	4.0	3.9	4.1
Responsiveness	4.0	4.0	3.8	3.8	3.7	3.9
Rapport	4.2	4.1	4.0	4.0	4.1	4.1
Safety	4.0	3.9	3.9	3.8	4.0	3.9
Student Focus	3.9	3.8	3.8	3.7	3.8	3.8
Curricula	3.9	3.8	3.8	3.6	4.1	3.8
Instructor	4.0	4.2	4.0	3.8	4.1	4.1
Course	3.8	3.7	3.7	3.8	3.9	3.8
Service Culture	4.0	4.0	3.9	3.9	4.0	4.0
Overall Satisfaction	4.0	3.8	3.7	3.7	3.9	3.8

The author used a one-way ANOVA to compare the effect of age on each dimension of the quality of service culture and overall satisfaction. The ANOVA result (Appendix E, Table E.3) showed that there was no difference between the age groups in each dimension and Overall Satisfaction [$F(2,203)=1.97$, $p=0.142$].

Taken together, these results suggest that the age does not have any effect on the satisfaction of international students in general and each dimension of service culture at the University of Saskatchewan. However, it should be noted that the 22-36 age groups tended to be less satisfied than the others.

The comparison of means with dimensions and Overall Satisfaction based on countries/areas. From table 4.29, European students appeared to be more satisfied with the University of Saskatchewan than other groups. African students had the lowest mean in Infrastructure, Service Ability, Safety and Student Focus dimensions, while students from the Asian countries had the lowest mean in Curricula, Instructor. In the Service Culture, The South American and Europe groups were more satisfied than the groups of Asian and African countries.

Table 4.29: The Comparison of Means with Dimensions and Overall Satisfaction Based on Countries/Areas

	South America	East Asia	Europe	Africa	West, South & Central Asia	Other	Total
Infrastructure	4.4	4.2	4.5	4.0	4.4	4.0	4.3
Service Ability	4.1	4.1	4.3	3.9	4.0	3.9	4.1
Responsiveness	4.0	3.9	4.3	3.9	3.9	4.0	3.9
Rapport	4.2	4.0	4.4	4.3	4.0	3.5	4.1
Safety	4.1	3.9	3.9	3.8	3.9	3.1	3.9
Student focus	3.9	3.8	3.9	3.8	3.9	2.7	3.8
Curricula	3.9	3.8	3.9	4.0	3.8	3.0	3.8
Instructor	4.1	4.0	4.1	4.2	4.0	3.2	4.1
Course	3.8	3.8	3.8	3.9	3.7	3.2	3.8
Service Culture	4.0	3.9	4.1	4.0	4.0	3.4	4.0
Satisfaction	4.0	3.8	4.1	3.9	3.6	3.5	3.8

From the Test of Homogeneity of Variances (Appendix E, Table E.7), the results indicated three significant differences between groups in Infrastructure ($p = 0.016$), Safety ($p = 0.011$) and Service Culture ($p = 0.047$). However, in ANOVA result (Appendix E, Table E.8),

there were no differences in Infrastructure [$F(5,199) = 2.15, p = 0.061$], Safety [$F(5,200) = 1.34, p = 0.248$] and Service Culture [$F(5,200) = 0.793, p = 0.556$]. The post hoc comparisons using Bonferroni test showed that there were no statistically significant differences between the countries/area groups (Appendix E, Table E.9)

Overall, these results suggest that the countries or areas of participants do not have effects on the overall satisfaction in terms of quality of service culture dimensions and overall satisfaction. Nonetheless, it is noted that the European students tended to be more satisfied with the quality of service culture at the University of Saskatchewan than were Asian and African students.

The comparison of means with dimensions and Overall Satisfaction based on enrollment status. As a result of table 4.30, in the Quality of Service Culture dimensions, the undergraduate students tended to be more satisfied than were the graduate students, except with regard to the Instructor dimension. In terms of Overall Satisfaction, undergraduate students had a higher mean than graduate students

Table 4.30: The Comparison of Means with Dimensions and Overall Satisfaction Based on Enrollment Status.

	Full-Time Undergraduate	Part-Time Undergraduate	Full-Time Graduate and Post Graduate Study	Part-Time Graduate and Post Graduate Study	Total
Infrastructure	4.2	4.5	4.3	4.3	4.3
Service Ability	4.1	5.0	4.1	4.1	4.1
Responsiveness	4.0	5.0	3.9	3.4	3.9
Rapport	4.2	4.8	4.1	4.1	4.1
Safety	4.0	4.2	3.9	3.6	3.9
Student Focus	3.9	4.6	3.8	3.5	3.8
Curricula	3.8	4.0	3.8	3.5	3.8
Instructor	4.0	4.0	4.1	3.9	4.1
Course	3.8	4.5	3.8	3.4	3.8
Service Culture	4.0	4.5	4.0	3.8	4.0
Satisfaction	4.0	5.0	3.7	3.9	3.8

Because there was only one responding part-time undergraduate, the author divided the enrollment status into three groups: Undergraduate; Part-time and Full-time graduate students when performing the ANOVA. From the ANOVA results (Appendix E, Table E.4), there were no significant differences in means with respect to enrollment status on Service Culture dimensions and Overall Satisfaction [$F(2,203) = 0.459, p = 0.633$] from the perception of participants.

Overall, the results suggest that the enrollment status does not affect the overall satisfaction of international students. However, the participants who were undergraduate students were more satisfied with the Quality of Service Culture and Overall Satisfaction than were graduate students.

The comparison of means with dimensions and Overall Satisfaction based on the year of the program. Table 4.31 shows the analysis of years studied and the students' perception of the quality of service variables. It is apparent that respondents who were in their first year had the highest mean in all dimensions and Overall Satisfaction ($M = 4.11$); they were more satisfied compared to the more experienced students. In Overall Satisfaction, respondents who were studying in their second year ($M = 3.6$) or third year ($M = 3.57$) had a lower mean score compared to other groups. Similarly, in each quality of service culture dimension, they were less satisfied than other groups.

Table 4.31: The Comparison of Means with Dimensions and Overall Satisfaction Based on The Year of The Program.

	1 year or less	2 years	3 years	4 years	5 years or more	Total
Infrastructure	4.4	4.1	4.3	4.5	4.5	4.3
Service Ability	4.2	4.0	3.9	4.2	4.3	4.1
Responsiveness	4.1	3.7	3.9	3.9	4.1	3.9
Rapport	4.3	3.9	4.0	4.2	4.5	4.1
Safety	4.0	3.8	3.8	4.1	4.1	3.9

Student Focus	4.0	3.7	3.6	4.1	4.1	3.8
Curricula	4.0	3.8	3.6	3.8	4.0	3.8
Instructor	4.1	4.0	4.0	4.1	4.2	4.1
Course	3.9	3.7	3.5	3.9	3.9	3.8
Service Culture	4.1	3.9	3.9	4.1	4.2	4.0
Satisfaction	4.1	3.6	3.6	4.0	4.1	3.8

Again, the author used one-way ANOVA to compare the effect of students' years of study on each dimension of quality of service culture and overall satisfaction. From the ANOVA result (Appendix E, Table E.6), the results indicated the significant differences between students' perceptions towards the satisfaction criteria based on year in the University: Infrastructure [$F(4,200) = 3.348$, $p = 0.011$], Responsiveness [$F(4,201) = 2.79$, $p = 0.028$], Rapport [$F(4,201) = 3.398$, $p = 0.01$], Student Focus [$F(4,201) = 3.153$, $p = 0.015$], Service Culture [$F(4,201) = 2.767$, $p = 0.029$] and Overall Satisfaction ([$F(4,201) = 4.290$, $p = 0.002$]). Post hoc comparisons using the Bonferroni test indicate that the mean score for the first year participants was significantly different than the second year participants only in Infrastructure ($p = 0.025$), Responsiveness ($p = 0.013$), Rapport ($p = 0.033$) and Overall Satisfaction ($p = 0.006$), while Student Focus ($p = 0.16$) and Service Culture ($p = 0.07$) did not have a significant difference.

In summary, the results indicate that the year of study does bear on the overall satisfaction and quality of service culture dimensions (Infrastructure, Responsiveness, and Rapport). The result suggests that the first-year group was satisfied more statistically significant than were second-year students. However, there were no other significant differences among the other groups in Overall Satisfaction and Quality of Service Culture dimensions.

The comparison of means with dimensions and Overall Satisfaction based on home school or college. Table 4.32 describes the satisfaction of international students divided by their majors on the variables. As shown, the students from the School of Environment and Sustainability, Nursing, and School of Public Policy were quite satisfied. Most of the dimensions

had a mean score higher than 4. On the other hand, students from Medicine, Engineering and Public Health, Education, Kinesiology and Business had more than six dimensions that had a mean score lower than 4. The least satisfied students were from Kinesiology, with all dimensions lower than four, except the safety dimension.

Table 4.32: The Comparison of Means with Dimensions and Overall Satisfaction Based on Home College or School

	Agriculture and Bio resources	Arts and Science	Education	Edwards School of Business	Engineering	School of Environment and Sustainability	Kinesiology	Medicine	Nursing	Pharmacy and Nutrition	School of Public Health	Johnson-Shoyama Graduate School of Public Policy	Veterinary Medicine	Language Centre	Other	Total
Infrastructure	4.4	4.2	4.4	4.3	4.2	4.6	3.1	4.4	3.3	4.3	4.5	4.6	4.4	3.8	4.8	4.3
Service Ability	4.2	4.0	4.1	4.1	4.1	4.4	3.9	3.7	4.1	4.2	3.9	4.6	3.9	4.2	4.3	4.1
Responsiveness	4.1	4.0	3.9	3.8	3.8	4.6	4.0	3.6	4.3	3.9	3.5	4.4	3.9	4.0	4.1	3.9
Rapport	4.3	4.1	3.9	4.0	4.1	4.4	3.9	3.9	4.3	4.1	4.0	4.6	4.1	4.0	4.7	4.1
Safety	4.0	3.8	3.8	4.1	4.0	4.5	2.7	4.0	4.1	4.3	3.9	4.3	3.9	3.8	4.1	3.9
Student focus	3.9	3.8	3.6	4.0	4.0	4.1	3.4	3.5	4.0	4.2	3.8	4.2	3.8	3.6	4.2	3.8
Curricula	3.8	3.8	3.7	3.8	3.8	4.1	3.3	3.6	4.1	4.1	3.9	4.3	4.3	3.8	3.8	3.8
Instructor	4.2	4.0	4.0	4.0	4.0	4.3	3.4	4.1	4.5	4.2	4.1	5.0	4.4	4.0	3.8	4.1
Course	3.8	3.7	3.8	3.7	3.8	4.2	3.1	3.6	3.9	3.9	4.0	3.9	3.6	3.7	4.2	3.8
Service Culture	4.1	3.9	3.9	4.0	4.0	4.3	3.4	3.8	4.1	4.1	4.0	4.4	4.0	3.9	4.2	4.0
Satisfaction	4.0	3.8	3.6	3.9	3.9	4.3	3.2	3.5	4.3	4.1	3.9	4.3	4.0	4.0	3.9	3.8

Because there were not enough participants in each college and school, the author can not use ANOVA to compare the effect of major on the satisfaction.

Reliability and Regression Analysis

As discussed in Chapter Three, the scale of the factors affecting the international students' overall satisfaction has nine dimensions which are: Infrastructure; Service Ability, Responsiveness, Rapport, Safety, Student Focus, Curricula, Instructor and Course. For accessing

the reliability of this research and the measurement scale, Cronbach's Alpha and Exploratory Factor Analysis- EFA was used in this study.

Cronbach's Alpha analysis. Cronbach's Alpha analysis is a test of internal consistency and used first to eliminate unfit variables. In order to be a reliable measurement, the index of Cronbach's Alpha needs to be higher than 0.6, and the higher Cronbach's Alpha, the result is more reliable (Nunnally & Bernstein, 1994). Also, Variables having Corrected item-total Correlation less than 0.3 were rejected. Cronbach's Alpha results are presented in the following:

Cronbach Alpha for Infrastructure was 0.800 (Appendix F, Table F.1). All observation variables in this dimension have coefficients of the Total Correlation of these component measurements which met the permissible standard (greater than 0.3). If the item "Infrastructure 1" was deleted, then the Cronbach's Alpha coefficient would be raised to a higher level (at 0.803). So, the author decided to delete "Infrastructure 1." The rest of the items are suitable for EFA.

Cronbach Alpha for Service Ability was 0.892 (Appendix F, Table F.5). The Item-Total Correlation is high overall and higher than 0.3. As a result of the table, if four items Service Ability 1, 7, 8, 9 were rejected, the Cronbach's Alpha will be 0.906. In order to keep the reliability of the scale high, the author eliminated these items and kept Service Ability 2 3 4 5 6 to use in the factor analysis.

Cronbach's Alpha for Responsiveness. At first, the Cronbach Alpha of Responsibility is 0.864, but after eliminating the Responsiveness 1, it would increase to 0.877 (Appendix F, Table F.2). The coefficients of the Total Correlation of these component measurements met the

permissible standard. Therefore, the component measurement variables that were used in the next EFA analysis are Responsiveness 2 3 4 5.

Cronbach Alpha for Rapport was 0,866 (Appendix F, Table F.3). The Item-Total Correlation is high in overall (with lowest as 0,633 – "Rapport 2"). Therefore, the measurement variables in this section will be used in the factor analysis - EFA.

Cronbach's Alpha for Safety was 0.77 (Appendix F, Table F.4). The Item-Total Correlation of each item meets the standard, higher than 0.3. So, the measurement variables in this section will be used in the factor analysis - EFA.

Cronbach's Alpha for Student Focus was 0.823 (Appendix F, Table F.6). All variables have coefficients of the Total Correlation higher than 0, 3. However, the Cronbach's Alpha would increase to 0,831, if Student Focus 1 was deleted. Therefore, the items of this dimension used for EFA are Student Focus 2 3 4 5.

Cronbach's Alpha for Curricula was 0.808 (Appendix F, Table F.7). All observation items' coefficients of Total Correlation met the permissible standard (> 0.3). However, the Cronbach's Alpha would increase to 0, 82, if Curricula 4 was deleted. Therefore, Curricula 4 would be rejected before applying EFA. The rest (Student Focus 2 3 4 5) were suitable for EFA.

Cronbach's Alpha for Instructors was 0.894 (Appendix F, Table F.8). The coefficients of the Total Correlation of these component measurements met the permissible standard. Therefore, all component measurement variables were used in the next EFA analysis.

Cronbach's Alpha for Course was 0.833 (Appendix F, Table F.9). The coefficients of the Total Correlation of these component measurements met the permissible standard. Therefore, all component measurement variables were used in the next EFA analysis.

Cronbach's Alpha for Overall Satisfaction was 0.92 (Appendix F, Table F.10). The coefficients of the Total Correlation of these component measurements met the permissible standard. If the item "STUSA2" was deleted, Cronbach's Alpha coefficient would be raised higher at 0.93. Therefore, the component measurement variables that were used in the next EFA analysis were Student Satisfaction 1 2 3 4.

Cronbach's Alpha Summary After eliminating all the observation variables, the new Cronbach's Alpha was created (Appendix F, Table F.11). The remaining items from the Cronbach Alpha test were used for the next steps, Exploratory Factor Analysis.

Exploratory Factor Analysis (EFA). After the test of Cronbach's Alpha, EFA was applied to test the validity of the measurements. The qualification for using EFA is when the coefficient of KMO is between 0.5 and 1. The KMO (Kaiser - Meyer - Olkin Measure of Sampling Adequacy) was used to analyze the appropriateness of factor analysis. When the factor loadings are less than 0.5, then these are rejected. The critical factors eigenvalue is 1, and the scale is accepted as the total variance extracted when equal to or greater than 50% (Gerbing & Anderson, 1988). Principal components extracted method with varimax rotation was used in factor analysis to explore the combination of service quality scale.

The quality of service culture measurement had 48 variables with nine factors for the reliability test. After analyzing, the scale remained with 33 variables, grouped into seven factors. The summary of the results of EFA was described as below:

KMO and Bartlett's Test for independent Variables. The results of the rotated component matrix (Appendix F, Table F.13) showed that 33 observed variables were grouped into seven factors. Weighted variables are all greater than 0.5, so observational variables are essential in the

factors; they have practical significance. The coefficient KMO = 0.928 (Table 4.33), so EFA was consistent with the data. Bartlett's test has a significance level of .000 so that the observed variables are correlated across the whole range. Variables were correlated to each other, and the terms had qualified the requirement of factor analysis.

Table 4.33: KMO and Barlett's Test for Independent Variables

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.928
Bartlett's Test of Sphericity	Approx. Chi-Square	4675.048
	df	528
	Sig.	.000

Total Variance Explained. As shown in Appendix F, Table F.12, there were seven components extracted at Eigenvalue greater than 1 (the smallest gain 1.01). Extraction Sums of Squared Loadings was 71.05%, which means that seven factors explained 71.05% of the variance. The number shows that the measurement model had stability. Last, all the observed variables had factor loading higher than 0.5, so none of these were rejected (Table F.12).

Rename for the new group of observed variables. After exploring the factor analysis, the variables were grouped into seven components (factors). The new name of each factor was based on the contents of measurement variables within each factor. The seven new factors and their components are shown in Appendix F, Table F.14.

The author used Cronbach's Alpha test again to check the reliability of the new quality of service culture scale. The new scale had seven dimensions and 33 items: Academic- 10 items, Faculty members- 5 items, Support staff/administrator- 5 items, Safety- 4 items, Student Focus 4 items, Learning Area- 3 items, Finance- 2 items. The results in Table 4.26 showed that all factors were qualified for the next analyzing stage.

KMO and Barlett's Test for Dependent Variables. There was only one factor being extracted (Table 4.35). Weighted variables were all greater than 0.5, so observational variables were essential in the factors; they had practical significance. The coefficient KMO = 0.858 (Table 4.34), so EFA was consistent with the data. Bartlett's test had a significance level of .000 so that the observed variables were correlated across the whole range.

Table 4.34 KMO and Barlett's Test for Dependent Variables

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.858
Bartlett's Test of Sphericity	Approx. Chi-Square	675.619
	df	6
	Sig.	.000

Also, the results of Table 4.35 indicated that Extraction Sums of Squared Loadings was 83.277%; these observation variables were deemed satisfactory for further analyzes. Thus, the initial model of Cronbach's reliability analysis and the EFA factor, the initial factors were satisfactory, and the original model was retained for subsequent tests.

Table 4.35: Total Variance Explained for Dependent Variables

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.331	83.277	83.277	3.331	83.277	83.277
2	.260	6.494	89.770			
3	.228	5.689	95.459			
4	.182	4.541	100.000			
Extraction Method: Principal Component Analysis.						

Regression analysis. To answer the research question regarding which and how each dimension impacts the dependent variable "international students' overall satisfaction," the regression analysis was used.

Regression analysis would be performed with seven independent variables: "Academic", "Faculty members," "Support Staff/Administrator," "Safety," "Student Focus," "Learning Area," "Finance," and the one dependent variable is "Satisfaction." The value of the factors used to run the regression was the mean of the observed variables. The input method used was Enter, which included all variables that were put in at the same time. Regression analysis was performed by the total regression of variables with SPSS software.

Regression model as follows:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \beta_7X_7$$

Y: Level of student's satisfaction with service quality

X1: Academic

X2: Faculty members

X3: Support Staff/Administrator

X4: Safety

X5: Student Focus

X6: Learning Area

X7: Finance

After eliminating the factor which violated the multi-collinearity phenomenon and had sig higher than 5%, the result of regression analysis shows as below:

The results of Linear regression analysis (Table 4.36) illustrate that the model had R Square = 0.598 and the adjusted R squared is 0.59. The adjusted R squared indicates the

compatibility of the model is 59.8%, or, in other words, there is 59.8% of the variance of the international students' overall satisfaction that is the general explanation of the three dimensions: Academic, Safety, and Finance. The result also showed Durbin-Watson = 1.88 (<2) meant that all three independent factors had a positive impact on the dependent variable.

Table 4.36 Regression results of the model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.773	0.598	0.59	0.58379	1.88
a Predictors: (Constant), finance, academic, safety, support staff					
b Dependent Variable: satisfaction					

Analysis of ANOVA (Table 4.37) showed that the parameter F had sig. = .000, this indicated that the regression model constructed was consistent with the data set collected, and the variables included are significant statistically of levels 5%. Thus, the independent variables in the model are related to the Satisfaction dependent variable.

Table 4.37: Analysis of ANOVA variance

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	99.264	4	24.816	72.816	.000b
	Residual	66.798	196	0.341		
	Total	166.062	200			
a Dependent Variable: satisfaction						
b Predictors: (Constant), finance, academic, safety, support staff						

Results of the analysis of regression coefficients show that three independents variables: "Academic," "Safety," "Finance," "Support Staff" all have significant levels of less than 0.05 (Table 4.38). It means that at a significant level of 5%, all four independent factors have a causality relationship to the dependent variable "Satisfaction." Therefore, we can say that all independent variables affect international students' overall satisfaction. All of these factors are

significant in the model and modified the students' overall satisfaction as the regression coefficients are positive.

Table 4.38 Summary table of regression coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-0.674	0.287		-2.351	0.02		
	Academic	0.382	0.085	0.285	4.495	0	0.509	1.964
	Support Staff	0.438	0.084	0.334	5.221	0	0.5	1.999
	Safety	0.235	0.083	0.174	2.848	0.005	0.548	1.825
	Finance	0.113	0.042	0.144	2.701	0.008	0.727	1.376
a Dependent Variable: Satisfaction								

Besides, the coefficients of variance of the independent variables (VIF) are below 2.

Therefore, there was no multi-collinearity phenomenon that occurred, affecting the results of the model. The standardized regression equation:

The standardized regression equation:

$$\text{Overall Satisfaction} = 0.334 * \text{Support Staff} + 0.285 * \text{Academic} + 0.174 * \text{Safety} + 0.144 * \text{Finance} \text{ (The first equation)}$$

According to the regression equation, the role of these factors effect on to students' satisfaction are ranked as follow:

1. Support Staff (0.334)
2. Academic (0.285)
3. Safety (0.174)
4. Finance (0.144)

The following interpretation will help us to understand the meaning of students' satisfaction equation as it follows the standardized beta coefficient:

" Support Staff " had the largest standardized coefficients regression, which was 0.334. This means that this was the most powerful factor affecting international students' overall satisfaction. In other words, in a case where other factors are constant, if the Support Staff dimension increases a unit, the international students' overall satisfaction will increase 0.334 times. Therefore, if the University of Saskatchewan has a good quality of support staff, the satisfaction of international is predicted to increase.

"Academic" had the second-largest standardized coefficients regression, which was 0.285. This means that this was the second most influential factor affecting international students' overall satisfaction. In other words, in a case where other factors are constant, if the Academic dimension increases a unit, then the international students' overall satisfaction is predicted to increase by 0.285 times. Therefore, if the University of Saskatchewan has a good quality of instructors and curriculum, students' overall satisfaction will likely increase.

"Safety" had the standardized coefficients regression, which was 0.174. This dimension was the third influential factor affecting international students' overall satisfaction. In other words, in a case where other factors are constant, if the Safety dimension increases a unit, then the international students' overall satisfaction will likely increase 0.174 times. So, if the University of Saskatchewan provides excellent services in terms of health care, recreation and security measurement, international students are likely to increase satisfaction with the quality of service culture.

"Finance" had the standardized coefficients regression, which was 0.144. In other words, in the case where other factors were to be constant, if the Finance dimension increased a unit, the international students' overall satisfaction would be predicted to increase 0.144 times. Therefore, international students' interest in tuition fees, funding and scholarships do matter.

In the comparisons of the mean scores section, there was a significant difference by the year of study. The author created the dummy variables for the demographic variables and analyzed the new regression model. The results of the new linear regression analysis (Appendix F, Table F.15) illustrate that the new model had R Square = 0.613, and the adjusted R squared is 0.603. The adjusted R squared indicates the compatibility of the model is 60.3%, or, in other words, 60.3% of the variance of the international students' overall satisfaction is explained by four dimensions: Academic, Support Staff, Safety, Finance, and “1 year or less.” The result also showed Durbin-Watson = 1.802 (<2) means that all four independent factors had a positive impact on the dependent variable. The ANOVA results [F (5,200) = 61.85, p = 0] also indicated that the new regression model constructed is consistent with the data set collected, and the variables included are significant statistically of levels 5% (Appendix F, Table F.16). Thus, the independent variables in the model are related to the Overall Satisfaction dependent variable.

As the result from the table 4.39, the author created the new regression model:

$$\text{Overall Satisfaction} = 0.313 * \text{Support Staff} + 0.291 * \text{Academic} + 0.182 * \text{Safety} + 0.127 * \text{Finance} + 0.127 * \text{Year}_1 \text{ (The second equation)}$$

Table 4.39 Summary table of regression coefficients with the demographic variables

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	-.670	.282		-2.377	.018	-1.226	-.114		
	1 year or less	.249	.089	.127	2.798	.006	.073	.425	.961	1.040
	Academic	.389	.083	.291	4.661	.000	.224	.554	.509	1.966
	Support Staff	.411	.083	.313	4.943	.000	.247	.575	.493	2.028
	Safety	.246	.081	.182	3.020	.003	.085	.406	.547	1.829
	Finance	.100	.041	.127	2.420	.016	.019	.182	.718	1.393
a. Dependent Variable: satisfaction_										

From the above equations, it can be seen that if international students were in the first year of study, the factor which mostly impacted on their overall satisfaction was Support Staff. The standardized coefficients regression of Support Staff was 0.313. In other words, in case where other factors are constant, if the Support Staff dimension were increased a unit, then the international students' overall satisfaction would be predicted to increase 0.313 times. Similarly, the Year 1 factor also contributed to the international students' overall satisfaction increase by 0.127 times.

If all dimensions have a value of 1, and if an international student was a first-year student, then the overall satisfaction coefficient will be 1.04, while the other will be 0.937 (for the first equation) and 0.913 (for the second equation). This result is compatible with the result of ANOVA based on the years of study that indicates that the first-year international students tended to be most satisfied with the Quality of Service Culture, compared to others.

Summary of Chapter Four

The above analysis showed the factors that most affected the overall satisfaction of international students. The order of importance of each factor depends on the absolute value of the regression standardized coefficients. The higher the absolute value, the higher the degree of satisfaction. Therefore, in this model, the factor that has the most influence on student satisfaction is Support Staff, the second is Academic, the third is Safety, the final strong influence was Finance for the non-first year international students. For the first-year international students, the factor that had the most influence on overall satisfaction was Support Staff (beta = 0.313), the second was Academic (beta = 0.291), the third was Safety (beta = 0.182), the fourth and last factors were Finance and Year 1, which had the same beta value of 0.127.

In this chapter, the author analyzed the descriptive statistics of demographic variables, tested the Pearson's correlation and hypotheses, and compared the mean scores of nine independent and dependent variables based on the demographic variables. The author also used the reliability Cronbach Alpha, Exploratory Factor Analysis (EFA), and regression analyses to identify factors impacting on student's satisfaction and level of impacting. The results are the basis for building solutions to an improved quality of service culture while choosing ideas, designing, building, and improving the service culture, which helps increase quality service delivery and provide satisfaction for the increasing and diverse needs of the international students. These findings will be further discussed in Chapter Five.

Chapter 5

Finding and Discussion

The researcher sought to investigate the perceptions of quality of service culture and overall satisfaction of the international students at the University of Saskatchewan. In chapter four, the author analyzed the data and identified the factors that influenced international students' satisfaction. In chapter five, the author reviews the results of data analysis, presents the main findings in terms of the satisfaction of international students at the University of Saskatchewan. In the following section, the author discusses the implications for theory, practice, policy and recommendations based on the findings. Last, chapter five profiled the subsequent research directions of the study and conclusion.

Review of Study Finding, According to Research Questions

By combining the service quality models from the literature review, the author was able to measure the quality of service culture based on the perception of international students and in order to gain a detailed understanding of factors affecting international students' overall satisfaction at the University of Saskatchewan. The sub-questions helped to respond to the main research question.

Question 1: “What quality of service variables (dimensions) correlate with the international students’ overall satisfaction?”

The results and findings of chapter four demonstrated that there was a relationship between Service Culture and the dimensions of Service Culture with Overall satisfaction (Table 4.21). All the null hypotheses were rejected as the significance p-values were less than 0.05. So, all the dimensions of the service culture influenced the international students’ overall satisfaction.

Question 2: " Which quality of service culture variables (dimensions) have a positive or negative influence on international students' overall satisfaction?"

Nine dimensions (Infrastructure, Service Ability, Responsiveness, Rapport, Student Focus, Safety, Curricula, Instructor and Course) correlated positively with the overall satisfaction of international students. As the r correlation was 0.796, the relationship between Service culture and international students' overall satisfaction was high. Among the quality of service culture dimensions, the relationship between Rapport and Overall Satisfaction was the highest with 0.724, but this dimension also registered the lowest mean. The respondents were mostly dissatisfied with the tuition fees and funding, and course 5 and 6 items received the lowest score compared with other items in the Course dimension. The rest of the factors also had the correlation coefficient above 0.6, except the infrastructure. The infrastructure correlation was only 0.344, which was considered indicative of a weak relationship, even for the students who were most satisfied with this dimension.

Question 3: "Which demographic variables show significant differences to the quality of service culture and overall satisfaction?"

When analyzing ANOVA, the author found that there was no statistical difference between the demographic groups except for their year of study variable. The students studying in different years had different levels of satisfaction in Infrastructure, Responsiveness, Rapport, Student Focus, Service Culture and Overall Satisfaction. The first-year students tended to be more satisfied than the second and third years.

Even though there are no statistical differences between the groups, we can say those female students tended to be more satisfied than were male students in certain dimensions of quality service culture, except for the Student Focus and Safety dimensions (Table 4.22).

Additionally, the European students were more satisfied than other groups, whereas the Asian group had the lowest mean scores for satisfaction in Overall Satisfaction and Quality Service Culture (Table 4.26). Lastly, the undergraduate students were satisfied with the Quality of Service Culture dimensions more than were the graduate students, except for the Instructor and Infrastructure. However, because of the small sample, so it did not represent the total of international students at the University of Saskatchewan and it is hard to conclude.

Question 4: “Based on the results analyzed, what are the perceived strengths of quality of service culture at the University of Saskatchewan and which ones may need improvement?”

The result from Table 4.14 revealed that international students were satisfied with the dimensions of quality service culture at the University of Saskatchewan and rated the satisfaction level between medium and high rank. Among all the elements of quality service culture, the Infrastructure had the highest mean (4.3), followed by Rapport with a mean score of 4.10. Service Ability and Instructor were the third-place dimensions with 4.06 and 4.06, respectively. In contrast, the rest of the dimension and Overall Satisfaction had a mean lower than 4.0 and higher than 3.5. From the mean scores of the dimensions, it can be observed that the respondents were less satisfied with Responsiveness, Safety, Student Focus, Curricula and Course, registered at “medium level.” Also, the data indicated that two dimensions had mean scores lower than overall satisfaction: Curricula and Course (the lowest).

Over 70% of participants were satisfied with the quality of support staff/administrators, and faculty members rated high, and over 80% agreed that they were friendly and courteous with international students. From their qualitative explanations, they mentioned the support from instructors and support staff. Nonetheless, some comments indicated that there was still a lack of attention and low interest from faculty members or support staff/administrators. The respondents

also reviewed the slow feedback mechanism from the staff and faculty members, but not so from the ISSAC staff. In terms of service quality of ISSAC, the quantitative data showed that ISSAC had a mean score of 4 (high level), and qualitative data from open-end questions indicated that the ISSAC staff were supportive and friendly. They supported international in several aspects, such as housing or recreational activities. However, in the opened-question, international students expected more from immigration services. The international students stated that immigration supports were not enough for them. This gap could be explained that the ISSAC staff were not allowed to deliver the immigration service without the license. So, the University of Saskatchewan should hire the immigration consultant or equipped ISSAC staff the immigration license.

CBIE (2018) indicated that housing was one of the most massive costs for international students in Canada. A fifth of participants of CBIE's survey had a big problem in finding the accommodations for their study. Based on the author's experience, the international students will relieve the pressure of study if they are satisfied with the housing. However, in this study, the resident/housing department was mentioned with the negative theme. The respondents were dissatisfied with the facilities, staff and functions of this department. As indicated in Chapter Four, the respondents felt the pressure and uncomfortable from the department. They complained that the department was not flexible in the moved in and moved out date. Besides, there were issues in pest control and facilities management in McEown Park residency. Most of the international students stayed in the McEown Park residency, which was the complex of old fashion buildings, but the rental fee is affordable and close to the university. As being trouble in transportation and housing that could cause the students' dissatisfaction. Hence, the

administrators should focus more on the area of housing services and train the staff more in customer interaction.

Regarding the academic dimensions (Curricula, Instructor and Course), most students were satisfied with the quality of instructors and their knowledge. In contrast, the Curricula and Course were both rated below four (the medium level). The participants wrote about funding and scholarship. The themes of their comments were the unfairness of the tuition fees and lack of funding/scholarship for international students. They suggested that the instructors should avoid using the cursive handwriting.

The safety is one of the top factors to choose the destination for study (CBIE, 2018; Adeyemi, 2017). From the data of this research and Adeyemi (2017), international students were satisfied with the safety and security not only at the University of Saskatchewan but also in the city of Saskatoon. However, students rated the items of healthcare and recreation as the medium level. In terms of recreation, international students have a characteristic that they usually stayed on campus, not come back home like domestic students in Spring/Summer terms. In this season, there were not many recreational activities for them. Also, the participants raised the concerns that there was a shortage of mental health awareness, insurance, recreational activities and services specialized for international students. A participant said that it was hard to book an appointment with the doctors. Another student expressed concerns in terms of the instructors' empathy or understanding of the mental health issues of international students. The faculty members were aware of the increase in international students; nonetheless, they were not well-prepared or trained to deal with the increasing diversity among students (Bartell, 2003). the University of Saskatchewan has been good at safety and security; however, the University should create more activities for international students in the Spring/Summer term and Christmas

Holiday. The support staff and academic staff should be trained or prepared to improve the empathy or understanding of mental health.

Moreover, in the Student Focus dimension, even nearly 70 percent of participants agreed with the two items of fairness and freedom at the University of Saskatchewan, there were a third of the participants indicated that they disagreed or answered neutrally. In terms of fairness, as indicated in Chapter Four, they stated that they were not provided with equal opportunity, especially in terms of treatments from faculty/staff and tuition fees/scholarship. An international student shared that the faculty members did not provide equal opportunities: "As an international student, I believe that the majority of the faculty members that I have encountered try to be friendly, but they do not provide equal opportunities for me compared to domestic students." ; while the other shared that faculty members did not treat international students the same as Canadian students:

Some faculty members (who are naturalized Canadians) do not treat international students (from the same country faculty member was born or once lived) the same as Canadian students. Those faculty members also pass personal comments, in the absence of an effective complaint mechanism, the international student ends up staying silent.

So, from the data, the author believed that there was still a barrier between the staff and international students, causing lack of some freedom of expression. It made them hardly express their voices or opinions; even Canada's reputation is a freedom country. Again, the lack of empathy or understanding of international students or the shortage of feedback mechanisms could be the reason for this phenomenon.

Regarding specialized services for international students, the demand in service is varied based on the different levels of study, countries and culture. (Choudaha, Orosz, Chang, 2012). Asian students' motivation to choose a school is the career opportunity, whereas the Middle East students consider safety and adequate support services. (Choudaha et al., 2012). Graduate

students focus their mind on research, study than other social activities. A participant pointed out that “Cultural difference, the personal difference should be taken into account; however, my learning method is different from discussing the Canadian education system... participating in discussion always distracts me; it's who I am. " And because of lack of understanding, this participant was mistreated: “a lab instructor once treated me so bad; she thought I was selfish.” The finding of this research, as well as other research, reminds the post-secondary education administrators to consider the strategies and capabilities in delivering the supports in terms of the different demands of international students.

Discussion for Main Research Question

The service providers in tertiary education should focus on the factors of service quality that students perceive essential instead of the quantitation of dimensions (Firdaus, 2006b). Therefore, to find the level of impact of each dimension on the overall satisfaction, the author used the Exploratory Factor Analysis (EFA). The SERPERF model has 22 observation variables: Reliability, Responsiveness, Assurance, Empathy and Tangibles. However, to adapt the reality, the author modified the scale to 61 independent variables and nine dependent variables. The EFA result grouped 29 variables that remained into seven factors groups: Academic, Faculty member, Support Staff/Administrator, Safety, Student Focus, Learning area and Finance. The results of testing the relevance of theoretical models to real market show that all five factors can explain up to 60.3% of student's satisfaction, and these levels of impacting were: Support Staff, Academic, Safety, Finance and “First Year.”

On the other hand, international students' satisfaction with Academic, Safety and Finance each had a significant positive direct effect on overall satisfaction. In contrast, Faculty members, Student Focus, Learning Area and other demographic variables did not seem to have any impact

on increasing total student satisfaction. The breakdown of the mean of each new factor and each item of these factors is provided in Appendix F, Table F.14.

Main Research Question: What is the level of international students' satisfaction at the University of Saskatchewan, and what service culture factors affect this level?

From the findings, we can answer the main research question that the level of international students' satisfaction at the University of Saskatchewan is medium level.

The result showed that the quality of academic services at the University of Saskatchewan: well-qualified instructors, curriculum and teaching methodologies affected the international students' overall satisfaction. This result is similar to the findings from the previous studies. Browne et al. (1998) found that the students would increase the attention in class if the lecturers had a thorough knowledge of the subject, providing the opportunity to ask the question, are approachable and have a sense of humour. O'Toole, Spinelli, and Wetzel (2000) and Willcoxson (1998) also found the vital role of instructors in students' learning experiences. In particular, first-year students desired instructors who have excellent teaching skills, approachable, knowledgeable, enthusiastic and organized (Sander, Stevenson, King, & Coates, 2000). From the above table, the communication, knowledge, teaching style of instructors, course objection and program syllabus received the high score (above 4). Besides, the feedbacks of students are also valuable as the perception of students about learning, teaching environment and support facilities (Harvey, 2003). The university can use the feedback as a guideline or evident for enhancements. However, the items: "My instructors provide me with timely feedback about my progress." and "My requests (or inquiries) are responded to in an appropriate and timely fashion by support staff/administrators." were only received the medium level.

Moreover, Ginsberg (1991) said post-secondary education not only focused on students' social values, capabilities and skills but also their campus experience: caring academic and non-academic staff, comfortable environment, adequate facilities and resources. These factors create a positive campus environment that increases student satisfaction (Douglas, Douglas & Barnes, 2006; Banwet & Datta, 2003; Elliot & Healy, 2001) as well as contributing to the quality of the institution (Elliot & Healy, 2001). These findings are relevant to the results of this study that the Faculty member, Support staff, Safety, Learning Area dimensions positively correlated with the Overall satisfaction of the international students. From the survey, the respondents rated highly agreement with the rapport, kindness, responsiveness of support staff/administrator and faculty members, the Instructors with 4.09 and Support Staff with 4.08 (Appendix F, Table F.14).

Additionally, the results indicated that the excellent learning facilities (the physical and digital) related to the overall satisfaction of international students. From the survey, international students were quite satisfied with the facilities, with the highest mean score of 4.25. Besides, students' personal and family safety and security were another concern, (Elliot & Shin, 2002; Brown & Holloway, 2008), because the international students travelled a long distance to study in another country. In this context, the University of Saskatchewan did an excellent job of keeping the safety and secure campus environment. Nonetheless, health care service needs improving, as the mean score was medium level (3.72).

Last, the finance dimensions had the lowest mean score (Appendix F, Table F.14). According to Elliot and Shin (2002), tuition payment is a worthwhile investment for the future. However, the participants were not satisfied with the tuition fees, and they considered that the services they received from the University of Saskatchewan were not worth their payments (the

tuition fees items were low 3.14). They also expected to get the scholarship or funding, but there was not much opportunity for them, so that made them dissatisfied (3.15).

Further Discussion and Implications

In this section, the author discussed the implications of the study in the context of theories, managerial and research methodology. The author linked government theories into reality. Then the comparison of the SERVPERF & SERVQUAL model, service culture dimensions were also profiled in the part of the Service Culture model implication. Lastly, the managerial and methodology implications were also proposed.

Institutional and Stakeholder Theories. As the results of this study, the level of satisfaction of international students was found to be at the medium level, the quality of instructor, curricula and staff/administrator ought to be a top priority at the University of Saskatchewan. Based on the institutional theory and stakeholder theory in chapter two, students and particularly international students are one of the key stakeholders at the University of Saskatchewan as all the processes of quality implications (i.e., input, process and output) are applied on them. Students create pressure and force the policymakers to change the quality service culture for the better. Students are a bridge of relationship between the University and other stakeholders such as parents, society, employers and governments, and all these stakeholders' satisfaction is dependent on the international students' satisfaction. Hence, we can see the effort to “achieve and sustain high levels of satisfaction” (p.5) of international students “in learning and cultural experiences” (p. 5) via the International Blueprint for Action 2025. The University of Saskatchewan has fostered the intercultural understanding activities or curriculum as well as the exchange program. Besides, acknowledging the increase of international students and their barriers, the University has the strategies to “increase the ability and confidence of

faculty and staff to support international and intercultural engagement and activities" (p5), and "support the well-being and success of our international students" (p.5) with the detail actions. So, we can see how the international students as the internal and external pressure making the University of Saskatchewan change and meet the need of stakeholders from the results of this research and International Blueprint for Action 2025.

The quality of service culture model implication. This research was based on the development of comprehensive models: SERVQUAL model, SERVPERF model and HEdPERF model contributed to the service culture, service quality and in the context of post-secondary education and examines the factors influencing service culture via the perception of international students. The dimensions from this research will contribute to a greater understanding of service culture in higher education services. Scholars, administrations and policymakers can apply this service culture performance model as a valid and useful framework to measure and monitor how the primary stakeholders form their service quality perceptions of higher education. "Service quality in higher education is a multidimensional construct, and there is no consensus among authors on the dimensions or the best model that should be used to evaluate service quality in institutions of higher learning" (Onditi & Wechuli, 2017, p. 333). The previous studies (Brochado, 2009; Cardona & Bravo, 2012; Petruzzellis, D'Uggento & Romanazzi, 2006; Twaissi & Al-Kilani, 2015) explored service quality in the post-secondary education in various areas in the world and suggested that the satisfaction of students could be explained by the perception of students. These studies identified many dimensions of service quality (both academic and non-academic dimensions) in tertiary education, such as faculty member and administrative staff

competence, teaching style, staff empathy, responsiveness, attitude support service, administrative service, the sufficiency of resources and institution facilities.

In this research, the study identified that international students' perceived quality of service culture and its dimensions as critical influences on their satisfaction. The result of this research also implies that the perception of excellent performance in a dimension positively influences the perceptions in other elements of service culture. It should be considered that the elements of a quality service culture should be monitored, developed and improved as a group, not separate from each other. In other words, if all dimensions increase the level of agreement perceived by international students together, the overall satisfaction of international students will be increased.

The findings also revealed that the support staff and academic dimensions had a substantial impact on international students' satisfaction. Regarding the Infrastructure dimension, international students did not rate the quality of service culture based on building and physical appearance but the grounds of quality of education. This finding confirmed the study of Khan, Ahmed and Nawaz (2011) that academic services are likely to account for much in students' satisfaction while Tangible factors had an insignificant correlation with student satisfaction. Another critical dimension in higher education service quality is the safety services primarily in the area of insurance and student health in case a student requires medical attention. Finance issues are also an essential component in the evaluation of service quality and international student satisfaction and focus groups can be used to identify the critical areas of interest to students. Hence, it is crucial to note that these service culture dimensions should be determined by international students as the primary stakeholders and recipients of the services, not the

management of the institution; and the dimensions could be varied depending on the differential context.

In terms of cultural context, there are not many studies and service quality model considering the country/culture factor. “The absence of a conceptual framework that facilitates studies of cross-cultural service quality could disadvantage the body of service quality knowledge by increasing disintegration” (Polyakova & Mirza, 2015, p. 74). However, several studies indicated that the service models should be adapted or modified to be suitable with reality (Carrillat, Jaramillo, & Mulki, 2007; Kaul, 2007; Keillor, Hult & Kandemir, 2004; Kim & Jin, 2002). In the real world, the cultural facets are always present in the service; however, it is neglected by most current research methodologies (Polyakova & Mirza, 2015). Hence, the researchers should take into consideration the quality of service culture dimensions in general and in the higher education industry specifically.

According to Dabholkar et al. (1996) and Ladhari (2008), it is necessary to have the industry-specific measurement of service quality. Moreover, Martinez and Martinez (2010) defined that attributes of service quality should be specified to each sector instead of being universal. Polyakova and Mirza (2015) said that the concentration of characteristics on each service industry “will produce a clear set of areas for consideration and increase the relevance of practical implications for management in any specific sector” (p. 74). Morales and Ladhari (2011) suggested that there should be a holistic approach and considerations of situational, contextual, structural variables when developing the service quality model. Nonetheless, in the reviewed studies, there are not many models of service culture measurement in post-secondary education and researchers used the models which are developed in the commercial industry to measure the service quality. The SERVQUAL and SERPERF instrument has been used the most

in the measurement of service quality, although newer models such as HEdPERF were explicitly developed for measuring service quality in the higher education sector. Hence, there is a need for higher education-specific models to be designed and tested more in the higher education sector to validate them in a differed geographical area and cross-cultural students. If so, it will provide a clear way for further research and fill the gaps in the field of perceived service culture in terms of higher education.

Last but not least, there are several studies and research using SERVQUAL to measure the quality of service. However, in this research, the author recognized that the difference scores-base method is hard to determine satisfaction. This opinion goes along with Cronin and Taylor (1988) and Teas (1993), who supported the performance-based theorist's argument that the use of difference score to scale the satisfaction is not adequate. Galeeva (2016) also stated that the ratios of perceived service quality performance are more reasonable, and logical for management than the difference score. So, the author concluded that the University of Saskatchewan should use the performance base approach as the primary measurement. However, the expectation of students should be considered to set the target and meet the needs of students.

Managerial implication. According to Malik, Danish and Usman (2010), the executives and managers should concentrate on “developing their educational institutes in the light of various dimensions of students’ quality perception” (p. 8). It is hard to identify and measure the students' satisfaction based on their perception of the quality of service culture; however, it can be beneficial for the universities to build a strong relationship with their current and prospective students (Hanaysha, Abdullah, & Warokka, 2011). Various dimensions affect the satisfaction of international students; however, failure to prioritize them leads to inefficient allocation of resources.

From the findings, the most influential factors enhancing the satisfaction of international students are the Support Staff and Academic dimensions. This finding also matches with the previous study that the participants rated the academic staff and the curriculum as the most critical factors (Hanaysha et al., 2011; Karami & Olfati, 2012; Tessema, Ready & Yu, 2012; Wang & Shieh, 2006). The University of Saskatchewan should consider paying attention to their efforts on the improvements in the quality of the teaching and learning process. In the contexts of grading and assessment, it may be necessary to involve students in the teaching and assessment process (Yun, 2009). The University of Saskatchewan may wish to consider building an effective electronic-communication feedback mechanism for international students. Jancey and Burns (2013) suggested that the electronic communication system is the ideal solution as it provides an engagement “with both internal and external students” (p.318), personalized advice and feedback. This system can help the unconfident international students to raise the questions, whereas staff can give a non-judgmental and timely response

Human resources are the most crucial factor in service (Triado, Aparicio, & Rimbau, 1999). The deposition, behaviour, empathy and expertise affect the quality of the interaction that affects mostly the quality of the service (Aparecida, Lopes & Oliveira, 2015; Malik, Danish & Usman, 2010). In this study, human resources were the faculty members and the support staff who provided services and played an essential role in helping international students. Besides, as mentioned in Chapter One, the author assumed that the culture of Support Staff and Academic Staff had the same service culture, but in reality, they may have different service cultures. In Chapter Four, the result of EFA also grouped the statements which had the same characteristics as separate factors. The result of regression analysis also indicated that the Support Staff and Academic factors contributed to the international students. The students expect “the feelings of

empathy, nobleness and kindness in their institute's administrative staff" (Fontaine, 2014, p. 110), as well as a close relationship with instructors. If the lecturers build a good rapport and relationship with students, academic performance and satisfaction will be increased (Knoell, 2012). However, even being aware of the increase of international students, most faculty members are not ready or trained to deal with them (Bartell, 2003). From the author's findings, it was evident that faculty members and support staff were prepared to support international students, but that not all were well equipped to do so in a competitive way. Therefore, the administration should be careful in training the employees to satisfy the expectations of international students. The University of Saskatchewan should provide additional professional development in the area of cross-cultural competency, and empathic communication to faculty and support staff/administrators.

In terms of culture shock, the different cultural background affects the academic and social integrations of students (Tinto, 1987). There are several studies indicated that the different areas of the world or cultures might have different ways to adapt to academic and social integration (Guiffrida, 2006; Calabuig, Quintanilla & Mundina, 2008). In the study of Brown and Holloway (2008), the students whose home cultures were similar to British culture stayed in Britain longer and suffered fewer culture shocks issues than the others. In this research, the satisfaction level of Asian students was lower than the satisfaction level of Non-Asian students (Table 4.26) that matches the studies below.

Asian students have the problem of the new cultural adjustment than students who come from other areas. Andrade (2006) found that Asian students in the USA had difficulty communicating with different cultural, regional students, and took a long time to adapt to the American norm and culture. Similarly, Toyokawa and Toyokawa (2002) and Ayano (2006) said

that the disparities in language, culture and communication made Asian (Japanese) students struggle in adapting to the new culture and academic environments. Chinese students also faced the adjustment challenges while studying abroad (Liang, 2004; Zhang & Brunton, 2007). To explain this difference, the author believes that there was a difference between Confucianism (East Asian countries) and Western philosophies (Kim, 2007; Seo & Koro-Ljungberg, 2005). According to Triandis, Chen and Chan (1998), the Asian international students experience traditional values centred in their social community of friends and family; so, they often find the help through resources from their social network rather than the professional resources in the Academic integration (Heggins & Jackson, 2003). Hence, the administrators should be aware of this point and focus more on helping the Asian students, especially in Academic dimensions (Curricula, Instructor).

In addition to culture shock, the findings showed that the first-year students were most satisfied among the groups, while the third and second year are the most dissatisfied groups (the lowest mean score). From the literature review of chapter two, there are four stages of culture shock: Honeymoon, Frustration, Adjustment and Adaption (Lysgaard, 1955). When international students arrive in their new country, they start their Honeymoon stage. The first-year students could have positive feelings that everything is new and exciting. However, when these students progress to second and third year – the frustration stage, they started to be dissatisfied and have discomfort. Their feelings in this stage are impatience, anger, and sadness. The second and third-year students had the lowest mean score of satisfaction. Then, the line of delight went up in the groups of the fourth and fifth years. It can be explained that they gained back the comfort and familiarity with the new environment (the adjustment stage) and adapted to the custom cultural practices in the new country (the adaption stage). From Figure 5.1, we can see the line of

satisfaction of Service Culture and Overall Satisfaction had the upward parabola shape that was similar to the culture shock curve of Lysgaard (1955).

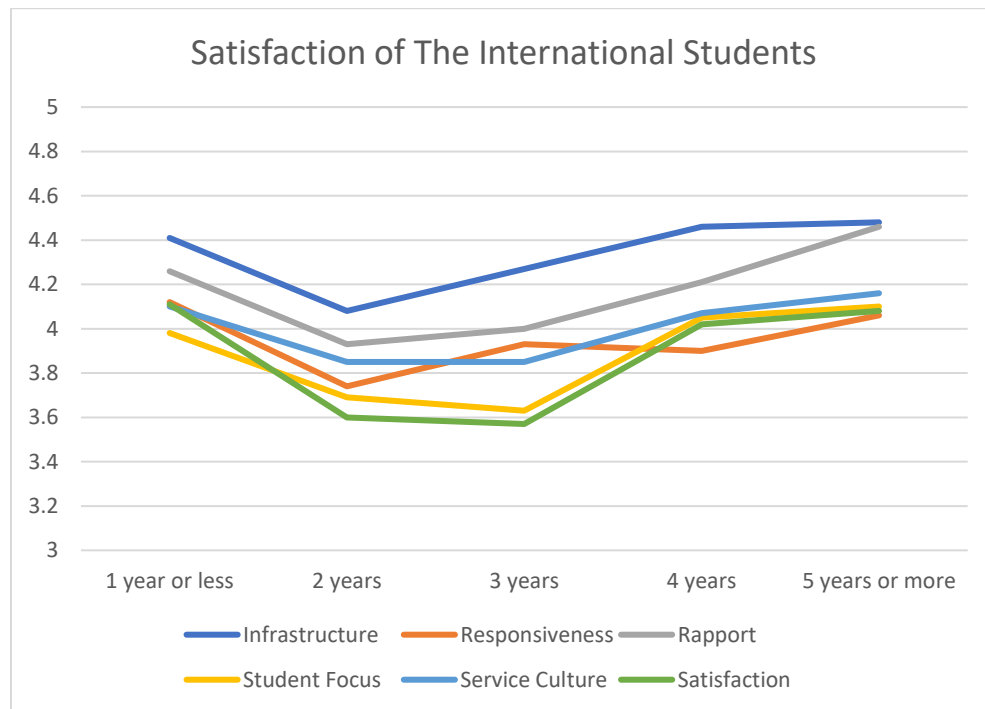


Figure 5.1 The Satisfaction lines of The International Students

The results of this study are also similar to the research of Kommers and Pham (2016) that there were no differences between Asian and Non-Asian students in the USA in terms of year one. However, at the end of year three, the Asian students tend to drop out of the class more than the non-Asian students. In this research, the author analyzed ANOVA of years of study between Asian and Non-Asian. There was no significant difference between the groups, but they have the same theme that year two and year three were the lowest. Therefore, from the results of this research and previous studies, the University of Saskatchewan should have a plan or procedure for staff and faculty to help the international student or overcome the culture shock. There are numerous supports for the new students; however, the University of Saskatchewan should not only focus on the first year but also the second and the third year. Also, as the

proportion of Asian students is the highest (60.4 %), it would be considerable pressure for the University of Saskatchewan. So, the different cultural and regional backgrounds should be a top concern when delivering the services.

The financial pressures create anxiety, health problem and a negative impact on international students' studying (Sherry, Thomas & Chui, 2010). They are even being required to demonstrate the capacity of finance when applying for the study permit and being allowed to work off-campus 20 hours per week; the finance is still a burden for international students in Canada. Hence, international students use financial aid more than domestic students (Baker, 2010). As mentioned in Chapter One, the financial considerations were one of the motivations of international students when choosing their study destination (CBIE, 2018). In the author's experience, reasonable tuition is one of the top reasons they choose to study at the University of Saskatchewan.

Nonetheless, in this survey, the participated illustrated their concerns about the tuition fee and scholarship. They stated that there was unfair between them and the domestic students in terms of tuition fees and scholarship. The difference can be explained that the international students were charged the tuition fee higher than the domestic students because the parents of international students did not pay the taxes and not contribute to the public treasury (Leary, Hotchkiss, & Robb, 2016). Moreover, they expected that their payment is valuable to what they received from the services of the University of Saskatchewan, such as career opportunities, quality of teaching and learning, and so on. Therefore, the author suggested that the University of Saskatchewan should have an orientation to the international students that helps them to understand why there were differences in tuition fees between the domestic and international

students. International students should receive more financial aid, funding and scholarship during their study as well.

Besides the affordable tuition fee, immigration and employment opportunity are also the priority criteria to study abroad, especially the Asian students (Choudaha et al., 2012; CBIE, 2018). In the survey of CBIE (2018), “60% of all respondents indicated their intention to apply for permanent resident status in Canada in the future and over two-thirds (70%) of all students indicated their intention to find work in Canada following their studies” (p.6). In the research of Assailly (2012), the international students wanted to immigrate to Canada because they were good at English/French, had Canadian post-secondary education and they had lived and adapted with the Saskatchewan and Canada. So, it is clear to see that there is a demand for career services from international students.

From the perspective of macroeconomics, international students could be a solution to the shortages of skilled workforce in Canada and Saskatchewan. Acknowledging of that international students are considered as a source of generating revenue in the Canada, and they contributed \$151 million to Saskatchewan (Kunin & Associates, 2016), the government has the policies and strategies to attract and support the students stay in Canada after graduation such as post-graduation work permit or entrepreneur graduation program. However, during the job looking journey, the author recognized that there were still barriers for international students to join in the labour market. International students are just only allowed to work 20 hours per week and have trouble in finding the job after graduation. In the labour market, employers prefer candidates who have Canadian working experiences. Employers also preferred to hire full-time staff than part-time, and there were also difficulties in transportation (Li & Que, 2015) that prevent international students from finding the job. Furthermore, the author also experienced bad

treatments from the employer in a part-time job. Hence, the University of Saskatchewan should create career orientations to help international students to understand their rights and labour laws in Canada and Saskatchewan. The University of Saskatchewan also should create more jobs on campus to support international students.

Furthermore, according to Sincacore et al. (2011), there is a lack of support for international graduate students compared with the undergraduate. This shortage is suitable for the result from the ANOVA analyzing (Table 4.27) that the international graduate students were less satisfied with the service culture dimensions than the undergraduate students. Based on the author's experiences, the graduate students spent their time on the study and research rather than the social activities. Therefore, the administrators should focus more on supporting the graduate level in terms of their career path or academic aspirations.

Last, the reliability of infrastructure plays a vital role in students' perception. In this research, The University of Saskatchewan received the highest score in the infrastructure dimension. However, students were still concerned about the quality of the residence's house in McEown Park, learning and recreational spaces. Thus, to create a service culture and achieve maximum international students' satisfaction, whenever possible, the University of Saskatchewan should invest in the facilities specialized to international students that facilitate the development of peer relationships and provide a home away from home on campus. Besides, based on the author's observation, even as a safety destination, nonetheless, when cannabis was legalized in Canada, there are raising concerns from the parents' international students who mainly sponsor and support their study. Hence, the safety campus or environments should be promoted and mentioned when advising the parents of international students.

Implications for methodology. Despite shedding some light on understanding the relationship between the qualities of service culture in higher education and international students' satisfaction, this research has the drawbacks and limitations like any study. The study examined the impact of factors of service culture on international students' satisfaction. However, only 60.3% of the variation in international students' satisfaction was explained by the factors. Thus, there may be other factors that affect the satisfaction that had not been studied, or this may have been due to the scale of the sample. Secondly, the study was only conducted with the international students at the University of Saskatchewan, so the statistical results do not represent and can not be applied to solve any problem in the other post-secondary institutions as the sample size was not significant. Therefore, similar studies in different public and private universities in other cities of Canada can be conducted to provide more fruitful insights and extend the generalizability of the findings. Third, the author did not compare the changes over the years (Instructors, Curricula, Facility, etc.), which leads to difficult for observing the variables that affect satisfaction. Last, it is not possible to predict the long-term implications for how international students will perceive the service culture because of the scope of data collection and analysis.

Further Research

There is an abundance of findings on culture and climate within the context of higher education that can be utilized to create high-quality academic programs. Similarly, there is a growing body of work by scholars focused on issues related to the internationalization of higher education. This thesis focused on service culture formation and maintenance at the University of Saskatchewan. How institutions seek to create these opportunities for developing a student-

centred culture is an issue yet to be discussed in current scholarship but is critical for the success of the service culture.

Moreover, this study only adapted SERPERF and HedPERF dimensions to assess the service quality of the University of Saskatchewan; future research might consider other dimensions of service quality that may affect student satisfaction. Also, future studies can include the cultural background in understanding the perception of service quality and its effect on their satisfaction and behaviours.

The research needs to be done in a long time, collecting data at different times and analyze the long-term model. It needs more time to measure and evaluate the effectiveness of applying the proposed solution. Moreover, in this study, the percentage of the first-year international students was 30.6 percent, and the first-year students could not experience much in the University of Saskatchewan. The perception of the participants does not represent for the total of international students, and the others can have the different points of view. The result can be more precise if the select population has more participants in different years of study.

The future research could use larger observation samples of international students not only from the University of Saskatchewan but also from different universities. Even though the study had the open-end question, the explanation still did not get enough insights from international students, so there is a call for mixed-method research.

At the time that the author was conducting the research, there was the raising of the application of advanced statistical technique - neural network programming in analyzing and predicting the data. The combination of hidden variables and growth models under a neural network framework might provide other ways to measure this dataset. Once the follow-up studies are conducted, the fuller insights of international students' satisfaction and service culture

can be achieved. This finding would help students, their families, and institutions, as well as policymakers, to make better decisions regarding how to support international students.

Conclusions

This study has addressed the objectives set out initially. By using the SERPERF and SERVQUAL model, the current study already identifies the factors affecting international student's overall satisfaction at the University of Saskatchewan. All of these factors are having a positive impact on student's satisfaction. The most influential factors are Support Staff, Academic, Safety, Finance and “First Year.” The data also indicated the housing service, immigration service, culture shock and services for graduate students had a relationship with the international students’ satisfaction. The implications were also stated above. The author hopes that the findings of this study will contribute to the enhancement of the service culture for international students and act as a reference for university-level policymakers in the flourishing of the quality of service culture for international students at the University of Saskatchewan.

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Appendix A

SURVEY

Dear friend:

Thank you for agreeing to participate in this study. The survey has been prepared to inquire about the satisfaction of international student in the context of quality of services culture at the University of Saskatchewan. Your responses will be analyzed anonymously, please answer the questions carefully and honestly. Thanks in advance for your collaboration. The survey consists of two parts. Part one is about your personal background and general university experience and part two is about the satisfaction while studying at the University of Saskatchewan. At the end of the survey, you will be asked if you'd like to be entered a draw for \$25 (Four prizes). If you choose to do so, your survey will be submitted you will be taken to a separate site to provide your contact information to facilitate this draw (separate from your survey, to ensure anonymity of survey responses). Again, thank you for your participation!

Part 1 - Personal information

1. My gender

Female

Male

Other

2. My age

17-21

22-26

27-31

32-36

37+

3. What is your country of citizenship?

Drop down list of country

4. Student enrollment status

Full Time Undergraduate

Part Time Undergraduate

Full Time Graduate and post graduate study

Part Time Graduate and post graduate study

5. In what year of your program are you currently in?

1 year or less
2 years
3 years
4 years
5 years or more

6. With which College or School is your program affiliated?

Note: All graduate and post-doctoral students are primarily associated with College of Graduate and Postgraduate Studies but are hosted in one of the below colleges or schools.

Agriculture and Bioresources
Arts and Science
Dentistry
Education
Edwards School of Business
Engineering
School of Environment and Sustainability
Kinesiology
Law
Library
Medicine
Nursing
Pharmacy and Nutrition
School of Rehabilitation Science
School of Public Health
Johnson-Shoyama Graduate School of Public Policy
Veterinary Medicine
Interdisciplinary
Language Centre
Other, please specify

Part 2 Satisfaction

In this part of the survey, please provide responses to items expressing the extent of your disagreement or agreement with the items in terms of your experiences at the University of Saskatchewan (strongly disagree = 1; disagree = 2; neutral = 3; agree = 4; and strongly agree = 5).

Items for survey	1 strongly disagree	2 disagree	3 neutral	4 agree	5 strongly agree

Infrastructure	What I have experienced in terms of infrastructure				
	1	2	3	4	5
This campus environment is visually attractive.					
The learning spaces on campus meet international standards (for example: rooms are warm in winter and air conditioned, as needed; well lit; and disability-friendly access. There is good teaching and learning equipment in learning spaces and wireless access).					
The campus libraries, computer rooms, self-study and common space areas meet my needs as a student.					
Websites, servers, campus alerts, digital forums, and email communications (PAWS and Blackboard systems) provide timely information, news and events for students.					
Please provide further explanations of any of your responses or make comments on any other dimensions of this University's infrastructure, if you wish.					
Service Ability	What I have experienced in terms of service ability				
	1	2	3	4	5
Support staff/administrators display sincere interest in working with me to solve any problems that arise.					
Faculty members display sincere interest in working with me to solve any problems that arise.					
When I, or a fellow student, have had problems, support staff/administrators have provided helpful and reliable advice.					

When I, or a fellow student, have had problems, faculty members have provided helpful and reliable advice.					
In my experience, support staff/administrators are trustworthy.					
In my experience, faculty members are trustworthy.					
Student services on campus are delivered as promised.					
Self-service through "Connection Point" (website) provides easy access to services (i.e., ordering transcripts).					
International student services (ISSAC) provides helpful services.					
As you wish, please provide further explanations of any of your responses (above) or make comments on any other dimensions of this University's service ability.					

Responsiveness	What I have experienced in terms of responsiveness				
	1	2	3	4	5
There are appropriate and readily available ways for me to express my feedback on student services, if I choose.					
I am confident that support staff/administrators have the capacity to work with me when, and if, problems arise.					
I am confident that faculty members have the capacity to work with me when, and if, problems arise.					
My requests (or inquiries) are responded to in an appropriate and timely fashion by support staff/administrators.					
My requests (or inquiries) are responded to in an appropriate and timely fashion by faculty members					
Please provide any further explanations of any of your responses (above) or make comments on any other dimensions of this University's responsiveness, if you wish.					

Rapport	What I have experienced in terms of rapport				
	1	2	3	4	5

The quality of University of Saskatchewan support staff/administrators is high.					
The quality of University of Saskatchewan faculty members is high.					
I have found support staff/administrators to be friendly and courteous.					
I have found faculty members to be friendly and courteous.					
In my experience, support staff/administrators are well trained and knowledgeable on rules and procedures.					
If you wish, please provide further explanations of any of your responses (above) or make comments on any other dimensions of this University's rapport.					

Safety-Wellbeing	What I have experienced in terms of safety-wellbeing				
	1	2	3	4	5
The security and safety measures that are in place at this university provide me with confidence that I'll be okay.					
I am sure that my personal and academic information are kept confidential.					
The health care services provided by this University are excellent.					
Available university-based recreational facilities for students' use are excellent.					
This university campus provides ample opportunities for student entertainment.					
Please provide any further explanations of any of your responses (above) or make comments on any other dimensions of this University's safety and wellbeing, if you wish.					

Student Focus	What I have experienced in terms of student focus				
	1	2	3	4	5
In my experience, office and access hours for services and facilities are convenient.					

Specialized services for international students at the University of Saskatchewan are excellent.					
I have experienced fairness and impartiality at this University.					
I feel there is freedom to express my opinions on this campus.					
This University facilitates and promotes student organizations					
If you wish, please provide further explanations of any of your responses (above) or make comments on any other dimensions of this University's student focus.					

Curricula	What I have experienced in terms of program curricula				
	1	2	3	4	5
In my experience, the course curricula are up to date.					
The learning materials provided by the instructors are excellent.					
In my experience, the assessment and the grading of course work by faculty is done fairly					
The times of the classes are well scheduled.					
Please provide further explanations of any of your responses (above) or make comments on any other dimensions of this University's program curricula, if you wish.					

Instructors	What I have experienced in terms of program instructors				
	1	2	3	4	5
My instructors have thorough knowledge of the course/subject content.					
My instructors regularly provide opportunities for students to ask questions.					
My instructors communicate the course subject material effectively.					
My instructors make the course learning as interesting as possible.					
My instructors provide me with timely feedback about my progress.					

Please provide further explanations of any of your responses (above) or make comments on any other dimensions of this University's program instructors, if you wish.	
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Courses	What I have experienced in terms of courses and program				
	1	2	3	4	5
In my experience this University provides programs that have flexible structures (i.e., full time, part time, distance learning).					
This University provides a wide range of programs with specialties.					
The courses that I have taken have been well-structured to achieve the stated learning outcomes.					
In my experience, course objectives are clearly stated in the syllabus.					
The tuition and fees assessed by this University for my course and program are reasonable					
There are sufficient opportunities for international student scholarships at this University.					
Please provide further explanations of any of your responses (above) or make comments on any other dimensions of this University's courses and your program, if you wish.					

In this part, please provide responses to items by expressing the extent of your disagreement or agreement with the items statement in terms of your current experience (strongly disagree = 1; disagree = 2; neutral = 3; agree = 4; and strongly agree = 5).

My Overall Satisfaction	1	2	3	4	5
Overall, I am satisfied with my study experiences at the University of Saskatchewan					
I would recommend the University of Saskatchewan to my friends, family, and colleagues.					
The quality of education at the University of Saskatchewan has met my expectations in most regards.					
Knowing what I do, through experience, if I had a choice to experience university all over again, I would enroll at the University of Saskatchewan.					
The "brand name reputation" of this University is high.					

Please provide further explanations of any of your responses (above) on your overall satisfaction with your experiences at the University of Saskatchewan, if you wish?					
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After you have submitted your survey, you will be taken to a separate page to indicate your interest in special draw for participants.

DRAW

Would you like to participate the draw?

Yes

No

Thank you page for NO option

Draw or prize need mechanism for having students complete survey and then going to separate space to provide their contact details to allow them to be part of draw.

If yes, please provide your contact information (reminder that these data are not associated with survey responses):

Name

Email

Again, thank you for your participation.

Appendix B

Instruments

Infrastructure and Tangibles

Applied Model	Literature or insight that warrants the subcategories under each dimension	Items for Survey
SERQUAL Companies should have modern equipment The physical facilities of the companies must be visually attractive The staff in the companies should be well dressed and clean The appearance of physical company facilities must be conserved according to the services they provide	Environment Learning spaces Learning facilities Communication technology	This campus environment is visually attractive. The campus environment should be visually attractive. The learning spaces on campus meet international standards; air conditioned, well lit, good teaching and learning equipment, wireless access, etc.) The campus libraries, computer rooms, self-study areas meet my needs as a student Websites, servers, campus alerts, digital forums, and email communications provided timely information,news and event for students

Service Ability

Applied Model	Literature or insight that warrants the subcategories under each dimension	Items for Survey
SERVQUAL When these companies promise to do something in	Trustworthy	Staff and faculty members display sincere interest in working with me to solve problem that arise.

<p>a certain time, they should do it</p> <p>When clients have problems with these companies, they should be helpful and reliable</p> <p>These companies should be trustworthy</p> <p>They should provide their services within the promised deadlines</p> <p>They should keep their records in a proper way</p>	<p>Reliability</p> <p>Enthusiasm</p>	<p>When I have had problems, faculty members and staff have provided helpful and reliable advice</p> <p>In my experience, staff and faculty members are trustworthy</p> <p>Student services on campus are delivered as promised</p>
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Responsiveness

Applied Model	Literature or insight that warrants the subcategories under each dimension	Items for Survey
<p>SERVQUAL</p> <p>The companies are not supposedly expected to tell clients exactly when their services are performed</p> <p>It is not reasonable to expect immediate availability from the</p>	<p>Student assistance</p> <p>Feedback mechanism</p> <p>Student request handle</p>	<p>There are appropriate and readily available ways for me to express my feedback on student services, if I choose</p> <p>I am confident that staff or faculty members have the capacity to work with me when problems arise.</p> <p>My requests (or inquiries) are responded to in an appropriate and timely fashion by staff and faculty members</p>

<p>employees in the companies</p> <p>The staff in the companies do not have to always be available to help clients</p> <p>It is normal for employees not to immediately respond to requests for being too busy</p>		
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Rapport

Applied Model	Literature or insight that warrants the subcategories under each dimension	Items for Survey
<p>SERVQUAL</p> <p>Clients should be able of believing the employees in these companies</p> <p>Clients should be able of feeling secure while negotiating with the employees in these companies</p> <p>The employees in these companies should be polite</p> <p>The employees should receive proper support from</p>	<p>Quality of faculty members/academic credentials</p> <p>Knowledgeable</p> <p>Rapport</p>	<p>The quality of University staff and faculty members is high.</p> <p>I have found staff and faculty members to be friendly and courteous.</p> <p>In my experience, staff members are well trained and knowledgeable on rules and procedures</p> <p>The “brand name reputation” of this University is high</p>

these companies to properly perform their duties		
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Safety-Wellbeing

Applied Model	Literature or insight that warrants the subcategories under each dimension	Items for Survey
	<p>Security and safety</p> <p>Quality of faculty members/academic credentials</p> <p>Knowledgeable</p>	<p>Security and safely measures that are in place at this university to provide me with confidence that I'll be okay</p> <p>I am sure that my personal and academic information is kept confidential</p> <p>The health care services provided by this University are excellent</p> <p>This University's recreational facilities available to students are excellent</p> <p>This University facilitates and promotes student organizations</p>

Student Focus

Applied Model	Literature or insight that warrants the subcategories under each dimension	Items for Survey
<p>SERVQUAL</p> <p>The companies are not supposedly expected to give clients individual attention</p> <p>The employees in these companies are supposedly not expected to give personalized attention to clients</p> <p>It is absurd to expect the employees in these companies to know what their clients' expectations are</p> <p>It is absurd to expect these companies to have their clients' best interests as goals</p> <p>The working hours of these companies should not be expected to be convenient to all clients</p>	<p>Supportive</p> <p>Accessible</p> <p>Equity</p>	<p>In my experience, office and access hours for services and facilities are convenient.</p> <p>Specialized services for international students at this University are excellent</p> <p>I have experienced fairness and impartiality at this University</p> <p>I feel freedom to express my opinions on this campus.</p>

Curriculums

Applied Model	Literature or insight that warrants the subcategories under each dimension	Items for Survey
<p>HEdPERF</p> <p>The documentations are provided adequately by the instructors</p> <p>Afzal et al. (2010)</p> <p>Curriculums designed by the university are up to date.</p> <p>Teaching Methodology is appropriate.</p> <p>The proportion between theory and practice are appropriate</p> <p>The assessment and the grading by the professor are fair.</p> <p>The timing of the class is suitable</p>	<p>Curriculums</p> <p>Teaching methodology</p> <p>Time</p> <p>Assessment and grading</p>	<p>In my experience, course curriculum, designed by this university, are up to date</p> <p>The learning materials provided by the instructors are excellent</p> <p>In my experience, the assessment and the grading of course work by faculty is done fairly</p> <p>The times of the classes are well scheduled.</p>

Instructors

Applied Model	Literature or insight that warrants the subcategories under each dimension	Items for Survey
HEdPERF Academic Dimension My instructors have the knowledge to answer my questions relating to the course content. My instructors deal with courteous manner. When I have a problem, instructors show a sincere interest in solving it. Instructors show positive attitude towards students. Instructors communicate well in the classroom. Instructors provide feedback about my progress Instructors are highly educated in their respective field. The handouts are provided adequately by the instructors.	Quality instructors Expert instructors Performance Feedback	My instructors have thorough knowledge of the course/subject content. My course instructors have provided opportunities for students to ask questions. My instructors have communicated the course subject material effectively. My instructors have made the course learning as interesting as possible. My instructors have provided me with timely feedback about my progress.

Course and Programs

Applied Model	Literature or insight that warrants the subcategories under each dimension	Items for Survey
HedPERF The institution provides programs with flexible structures. The institution provides a wide range of programs with several specialties.	Programs organization Programs content Course structure	This University provides programs that have flexible structures (full time, part time, distance learning) This University provides a wide range of programs with specialties. The courses I have taken are well-structured to achieve the stated learning outcomes In my experience, course objectives are clearly stated in the syllabus.

Overall Satisfaction

Applied Model	Literature or insight that warrants the subcategories under each dimension	Items for Survey
	Referral Retention Overall Satisfaction	Overall, I am satisfied with my study experience at the University of Saskatchewan I will recommend the University of Saskatchewan to my friends, family, and colleagues. The quality of study at the University of Saskatchewan has met my expectations in most regards Knowing what I do, through experience, if I had a choice to experience university all over again, I would enroll in the University of Saskatchewan

Appendix C

**Department of Educational Administration
College of Education
University of Saskatchewan**

Consent form

**Department of Educational Administration
College of Education
University of Saskatchewan**

Participant Consent Form

Researcher: THANH NGUYEN, Master Student (Department of Educational Administration, College of Education, University of Saskatchewan)

Supervisor: KEITH WALKER, Professor (Department of Educational Administration, University of Saskatchewan)

You are being invited to participate in a research study *Quality of Service Culture and Overall Satisfaction for International Students at the University of Saskatchewan*. The purpose of this research project is to investigate the factors impacting on student's satisfaction, viewpoints of service quality and the level of satisfaction among the international students who are studying at the University of Saskatchewan. This is a research project being conducted by *Thanh Nguyen*, Master student from College of Education, University of Saskatchewan. You are invited to participate in this research project because you are an international student at the University of Saskatchewan.

Your participation in this research study is voluntary and anonymous. You may choose not to participate. If you decide to participate in this research survey, you may withdraw at any time during the survey. If you decide not to participate in this study or if you withdraw from participating at any time, you will not

be penalized. Please be aware that you will not be able to withdraw once your response has been submitted, since it will be anonymous and impossible to disaggregate. You are free to omit any question.

You may choose to participate in the draw to win one of four \$25 prizes. Your contact information (email) will be collected to be added to the draw and to deliver the prize. The survey responses and the contact information are stored in two separate places and will not be linked to each other.

The online survey will take you approximately 20 minutes to complete. Your response will be confidential. To help protect your confidentiality, the surveys will not contain information that will personally identify you such as your name, email address or IP address. The survey questions will be about your satisfaction in term of services at the University of Saskatchewan.

We believe there are no known risks associated with this research study; however, as with any online related activity the risk of a breach is always possible. To the best of our ability your answers in this study will remain confidential. We will minimize any risks by setting the password for all data and backing up on a safeguarded memory stick. A copy of data will be held by Dr. Keith Walker (supervisor of this research) for required period of storage.

The survey will be programmed and administered online by the Social Sciences Research Laboratories (SSRL). The SSRL will program the survey using the survey programming platform called Voxco, a Canadian-owned company with servers located in Canada. Data will then be retained by the SSRL using a secure University of Saskatchewan shared drive (shared by SSRL staff). The server is managed by the University of Saskatchewan ICT department, and data is backed up daily. The results of this study will be used for scholarly purposes only and may be shared with the University of Saskatchewan representatives.

If you have any questions about the research study, please contact Thanh Nguyen via email

tdn548@mail.usask.ca, or Keith Walker via email keith.walker@usask.ca, business phone number **306-**

220-0614. This research project has been approved on ethical grounds by the University of Saskatchewan Research Ethics Board. Any questions regarding your rights as a participant may be addressed to that

committee through the Research Ethics Office ethics.office@usask.ca (306) 966-2975. Out of town participants may call toll free (888) 966-2975.

ELECTRONIC CONSENT: Please select your choice below.

Clicking on the "agree" button below indicates that:

I have read the above information. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason. I understand that data collected during the study, may be looked at by the main researcher and his advisors in this research. I give permission for these individuals to have access to my records.

I agree to take part in the below study.

Agree

☐

If you do not wish to participate in the research study, please decline participation by clicking on the "disagree" button.

Disagree

☐

Appendix D

Poster and Email

Department of Educational Administration

College of Education

Invitation to Participate in International Student Survey

We are looking for volunteers to take part in a study of

QUALITY OF SERVICE CULTURE AND OVERALL SATISFACTION FOR INTERNATIONAL STUDENTS AT THE UNIVERSITY OF SASKATCHEWAN

The benefits of this study include the offering changes that may be the improvement of services offered to international students.

In appreciation for your time, you will be entered to a draw for one of four \$25 prizes.

To learn more about this study, or to participate in this study, please click the link:

<https://na1se.voxco.com/SE/90/internationalstudentsurvey>

Your participation is entirely voluntary and would take up approximately 10 minutes of your time. By participating in this study, you will help us to investigate the factors impacting on student's satisfaction, viewpoints of service quality and the level of satisfaction among the international students who are studying at the University of Saskatchewan.

Principal Investigator: Thanh Nguyen **Tdn548@mail.usask.ca**

This study is supervised by Keith Walker **Keith.walker@usask.ca** 306-220-0614 (Business Phone number)

This study has been reviewed by, and received approval through, the Research Ethics Office, University of Saskatchewan. Research Ethics Reference: BEH-1013

PARTICIPANTS NEEDED FOR
RESEARCH

INTERNATIONAL STUDENT SATISFACTION SURVEY



ARE YOU

INTERNATIONAL STUDENTS

**WANT TO SHARE YOUR LEARNING EXPERIENCE
YOU WANT TO WIN ONE OF FOUR \$25 PRIZES**

If yes, let's scan the QR code or
access bit.ly/happyusask to sign up.



 **SCAN ME**

This study has been reviewed and received approval through the Research Ethics Board, University of Saskatchewan.

Appendix E

Correlation and ANOVA Results

Table E.1: Correlation of Service Culture Dimensions and Overall Satisfaction

		Infrastructure	Service ability	Responsiveness	Rapport	Safety	Student Focus	Curricula	Instructor	Course	Service Culture	Satisfaction
Infrastructure	Pearson Correlation	1	.468**	.363**	.429**	.428**	.421**	.258**	.313**	.332**	.549**	.344**
	Sig. (2-Tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	205	205	205	205	205	205	205	205	205	205	205
Service Ability	Pearson Correlation	.468**	1	.772**	.828**	.622**	.738**	.590**	.642**	.622**	.868**	.695**
	Sig. (2-Tailed)	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	205	206	206	206	206	206	206	206	206	206	206
Responsiveness	Pearson Correlation	.363**	.772**	1	.769**	.596**	.663**	.590**	.580**	.651**	.831**	.695**
	Sig. (2-Tailed)	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000
	N	205	206	206	206	206	206	206	206	206	206	206
Rapport	Pearson Correlation	.429**	.828**	.769**	1	.601**	.715**	.653**	.684**	.665**	.878**	.724**
	Sig. (2-Tailed)	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000
	N	205	206	206	206	206	206	206	206	206	206	206
Safety	Pearson Correlation	.428**	.622**	.596**	.601**	1	.737**	.537**	.491**	.665**	.787**	.639**
	Sig. (2-Tailed)	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000
	N	205	206	206	206	206	206	206	206	206	206	206
Student Focus	Pearson Correlation	.421**	.738**	.663**	.715**	.737**	1	.642**	.612**	.704**	.866**	.691**
	Sig. (2-Tailed)	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000
	N	205	206	206	206	206	206	206	206	206	206	206
Curricula	Pearson Correlation	.258**	.590**	.590**	.653**	.537**	.642**	1	.729**	.718**	.800**	.610**
	Sig. (2-Tailed)	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000
	N	205	206	206	206	206	206	206	206	206	206	206
Instructor	Pearson Correlation	.313**	.642**	.580**	.684**	.491**	.612**	.729**	1	.607**	.788**	.608**
	Sig. (2-Tailed)	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000
	N	205	206	206	206	206	206	206	206	206	206	206
Course	Pearson Correlation	.332**	.622**	.651**	.665**	.665**	.704**	.718**	.607**	1	.834**	.716**
	Sig. (2-Tailed)	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000
	N	205	206	206	206	206	206	206	206	206	206	206
Service_Culture	Pearson Correlation	.549**	.868**	.831**	.878**	.787**	.866**	.800**	.788**	.834**	1	.796**
	Sig. (2-Tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000
	N	205	206	206	206	206	206	206	206	206	206	206
Satisfaction	Pearson Correlation	.344**	.695**	.695**	.724**	.639**	.691**	.610**	.608**	.716**	.796**	1
	Sig. (2-Tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
	N	205	206	206	206	206	206	206	206	206	206	206

** . Correlation Is Significant At The 0.01 Level (2-Tailed).

Table E.2. ANOVA of Gender

		Sum of Squares	Df	Mean Square	F	Sig.
Infrastructure	Between Groups	.520	2	.260	.606	.546
	Within Groups	86.631	202	.429		
	Total	87.151	204			
Serviceability	Between Groups	1.806	2	.903	2.239	.109
	Within Groups	81.849	203	.403		
	Total	83.655	205			
Responsiveness	Between Groups	1.835	2	.917	1.828	.163
	Within Groups	101.907	203	.502		
	Total	103.742	205			
Rapport	Between Groups	1.367	2	.683	1.590	.206
	Within Groups	87.251	203	.430		
	Total	88.618	205			
Safety	Between Groups	1.588	2	.794	1.863	.158
	Within Groups	86.503	203	.426		
	Total	88.091	205			
Student Focus	Between Groups	1.974	2	.987	1.960	.144
	Within Groups	102.214	203	.504		
	Total	104.188	205			
Curricula	Between Groups	.479	2	.240	.468	.627
	Within Groups	104.011	203	.512		
	Total	104.490	205			
Instructor	Between Groups	1.013	2	.507	1.054	.350
	Within Groups	97.601	203	.481		
	Total	98.615	205			
Course	Between Groups	1.707	2	.853	1.498	.226
	Within Groups	115.630	203	.570		
	Total	117.336	205			
Satisfaction	Between Groups	3.045	2	1.522	1.970	.142
	Within Groups	156.860	203	.773		
	Total	159.905	205			
ANOVA of Gender						

Table E.3. ANOVA of Age

		Sum Of Squares	Df	Mean Square	F	Sig.
Infrastructure	Between Groups	.683	4	.171	.395	.812
	Within Groups	86.468	200	.432		
	Total	87.151	204			
Service Ability	Between Groups	1.813	4	.453	1.113	.351
	Within Groups	81.842	201	.407		
	Total	83.655	205			
Responsiveness	Between Groups	2.801	4	.700	1.394	.237
	Within Groups	100.941	201	.502		
	Total	103.742	205			
Rapport	Between Groups	1.542	4	.386	.890	.471
	Within Groups	87.076	201	.433		
	Total	88.618	205			
Safety	Between Groups	1.137	4	.284	.657	.623
	Within Groups	86.954	201	.433		
	Total	88.091	205			
Student Focus	Between Groups	1.211	4	.303	.591	.670
	Within Groups	102.977	201	.512		
	Total	104.188	205			
Curricula	Between Groups	3.592	4	.898	1.789	.132
	Within Groups	100.898	201	.502		
	Total	104.490	205			
Instructor	Between Groups	3.039	4	.760	1.598	.176
	Within Groups	95.575	201	.475		
	Total	98.615	205			
Course	Between Groups	.901	4	.225	.389	.817
	Within Groups	116.435	201	.579		
	Total	117.336	205			
Satisfaction	Between Groups	3.953	4	.988	1.274	.282
	Within Groups	155.952	201	.776		
	Total	159.905	205			
ANOVA of Age						

Table E.4. ANOVA of Enrollment Status

		Sum Of Squares	Df	Mean Square	F	Sig.
Infrastructure	Between Groups	.154	2	.077	.179	.836
	Within Groups	86.997	202	.431		
	Total	87.151	204			
Service Ability	Between Groups	.057	2	.028	.069	.933
	Within Groups	83.598	203	.412		
	Total	83.655	205			
Responsiveness	Between Groups	2.407	2	1.203	2.410	.092
	Within Groups	101.336	203	.499		
	Total	103.742	205			
Rapport	Between Groups	.427	2	.214	.492	.612
	Within Groups	88.191	203	.434		
	Total	88.618	205			
Safety	Between Groups	1.091	2	.545	1.272	.282
	Within Groups	87.000	203	.429		
	Total	88.091	205			
Student Focus	Between Groups	.722	2	.361	.708	.494
	Within Groups	103.466	203	.510		
	Total	104.188	205			
Curricula	Between Groups	.750	2	.375	.734	.481
	Within Groups	103.740	203	.511		
	Total	104.490	205			
Instructor	Between Groups	.933	2	.467	.970	.381
	Within Groups	97.681	203	.481		
	Total	98.615	205			
Course	Between Groups	.546	2	.273	.474	.623
	Within Groups	116.791	203	.575		
	Total	117.336	205			
Satisfaction	Between Groups	2.671	2	1.335	1.724	.181
	Within Groups	157.235	203	.775		
	Total	159.905	205			
Service Culture	Between Groups	.281	2	.140	.459	.633
	Within Groups	62.067	203	.306		
	Total	62.347	205			
ANOVA of enrollment status						

Table E.5. ANOVA of The Years of The Program

		Sum of Squares	df	Mean Square	F	Sig.
Infrastructure	Between Groups	5.469	4	1.367	3.348	.011
	Within Groups	81.682	200	.408		
	Total	87.151	204			
serviceability	Between Groups	2.905	4	.726	1.808	.129
	Within Groups	80.750	201	.402		
	Total	83.655	205			
responsiveness	Between Groups	5.457	4	1.364	2.790	.028
	Within Groups	98.285	201	.489		
	Total	103.742	205			
rapport	Between Groups	5.613	4	1.403	3.398	.010
	Within Groups	83.006	201	.413		
	Total	88.618	205			
safety	Between Groups	3.376	4	.844	2.002	.096
	Within Groups	84.715	201	.421		
	Total	88.091	205			
Student focus	Between Groups	6.152	4	1.538	3.153	.015
	Within Groups	98.036	201	.488		
	Total	104.188	205			
curricula	Between Groups	2.809	4	.702	1.388	.239
	Within Groups	101.682	201	.506		
	Total	104.490	205			
instructor	Between Groups	.738	4	.185	.379	.824
	Within Groups	97.876	201	.487		
	Total	98.615	205			
course	Between Groups	3.697	4	.924	1.635	.167
	Within Groups	113.639	201	.565		
	Total	117.336	205			
service culture	Between Groups	3.253	4	.813	2.767	.029
	Within Groups	59.094	201	.294		
	Total	62.347	205			
satisfaction	Between Groups	12.579	4	3.145	4.290	.002
	Within Groups	147.326	201	.733		
	Total	159.905	205			
ANOVA of the years of the program						

Table E.6 Post Hoc Test Based on Years Study

Multiple Comparisons							
Bonferroni							
Dependent Variable	(I) In What Year Of Your Program Are You Currently In?	(J) In What Year Of Your Program Are You Currently In?	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Infrastructure	1 Year Or Less	2 Years	.33375*	.10889	.025	.0247	.6428
		3 Years	.14546	.14341	1.000	-.2616	.5525
		4 Years	-.05026	.14700	1.000	-.4675	.3670
		5 Years Or More	-.06230	.21754	1.000	-.6798	.5552
	2 Years	1 Year Or Less	-.33375*	.10889	.025	-.6428	-.0247
		3 Years	-.18829	.13949	1.000	-.5842	.2076
		4 Years	-.38402	.14318	.079	-.7904	.0224
		5 Years Or More	-.39605	.21498	.669	-1.0063	.2142
	3 Years	1 Year Or Less	-.14546	.14341	1.000	-.5525	.2616
		2 Years	.18829	.13949	1.000	-.2076	.5842
		4 Years	-.19572	.17091	1.000	-.6808	.2894
		5 Years Or More	-.20776	.23436	1.000	-.8730	.4575
	4 Years	1 Year Or Less	.05026	.14700	1.000	-.3670	.4675
		2 Years	.38402	.14318	.079	-.0224	.7904
		3 Years	.19572	.17091	1.000	-.2894	.6808
		5 Years Or More	-.01204	.23657	1.000	-.6836	.6595
	5 Years Or More	1 Year Or Less	.06230	.21754	1.000	-.5552	.6798
		2 Years	.39605	.21498	.669	-.2142	1.0063
		3 Years	.20776	.23436	1.000	-.4575	.8730
		4 Years	.01204	.23657	1.000	-.6595	.6836
Service Ability	1 Year Or Less	2 Years	.22387	.10768	.389	-.0818	.5295

		3 Years	.23974	.14223	.934	-.1640	.6434
		4 Years	.02234	.14579	1.000	-.3915	.4362
		5 Years Or More	-.10317	.21576	1.000	-.7156	.5092
	2 Years	1 Year Or Less	-.22387	.10768	.389	-.5295	.0818
		3 Years	.01587	.13810	1.000	-.3761	.4078
		4 Years	-.20153	.14176	1.000	-.6039	.2008
		5 Years Or More	-.32705	.21305	1.000	-.9318	.2777
	3 Years	1 Year Or Less	-.23974	.14223	.934	-.6434	.1640
		2 Years	-.01587	.13810	1.000	-.4078	.3761
		4 Years	-.21740	.16951	1.000	-.6985	.2637
		5 Years Or More	-.34291	.23244	1.000	-1.0027	.3168
	4 Years	1 Year Or Less	-.02234	.14579	1.000	-.4362	.3915
		2 Years	.20153	.14176	1.000	-.2008	.6039
		3 Years	.21740	.16951	1.000	-.2637	.6985
		5 Years Or More	-.12551	.23463	1.000	-.7915	.5405
	5 Years Or More	1 Year Or Less	.10317	.21576	1.000	-.5092	.7156
		2 Years	.32705	.21305	1.000	-.2777	.9318
		3 Years	.34291	.23244	1.000	-.3168	1.0027
		4 Years	.12551	.23463	1.000	-.5405	.7915
Responsiveness	1 Year Or Less	2 Years	.38874*	.11879	.013	.0516	.7259
		3 Years	.19278	.15692	1.000	-.2526	.6382
		4 Years	.22011	.16085	1.000	-.2364	.6766
		5 Years Or More	.06381	.23803	1.000	-.6118	.7394
	2 Years	1 Year Or Less	-.38874*	.11879	.013	-.7259	-.0516
		3 Years	-.19597	.15235	1.000	-.6284	.2365
		4 Years	-.16864	.15640	1.000	-.6126	.2753
		5 Years Or More	-.32494	.23505	1.000	-.9921	.3422
	3 Years	1 Year Or Less	-.19278	.15692	1.000	-.6382	.2526

		2 Years	.19597	.15235	1.000	-.2365	.6284
		4 Years	.02733	.18701	1.000	-.5035	.5581
		5 Years Or More	-.12897	.25644	1.000	-.8568	.5989
	4 Years	1 Year Or Less	-.22011	.16085	1.000	-.6766	.2364
		2 Years	.16864	.15640	1.000	-.2753	.6126
		3 Years	-.02733	.18701	1.000	-.5581	.5035
		5 Years Or More	-.15630	.25886	1.000	-.8910	.5784
	5 Years Or More	1 Year Or Less	-.06381	.23803	1.000	-.7394	.6118
		2 Years	.32494	.23505	1.000	-.3422	.9921
		3 Years	.12897	.25644	1.000	-.5989	.8568
		4 Years	.15630	.25886	1.000	-.5784	.8910
Rapport	1 Year Or Less	2 Years	.32468*	.10917	.033	.0148	.6345
		3 Years	.25714	.14421	.761	-.1522	.6664
		4 Years	.04974	.14782	1.000	-.3698	.4693
		5 Years Or More	-.20286	.21875	1.000	-.8237	.4180
	2 Years	1 Year Or Less	-.32468*	.10917	.033	-.6345	-.0148
		3 Years	-.06753	.14001	1.000	-.4649	.3299
		4 Years	-.27494	.14373	.572	-.6829	.1330
		5 Years Or More	-.52753	.21601	.155	-1.1406	.0856
	3 Years	1 Year Or Less	-.25714	.14421	.761	-.6664	.1522
		2 Years	.06753	.14001	1.000	-.3299	.4649
		4 Years	-.20741	.17186	1.000	-.6952	.2804
		5 Years Or More	-.46000	.23566	.523	-1.1289	.2089
	4 Years	1 Year Or Less	-.04974	.14782	1.000	-.4693	.3698
		2 Years	.27494	.14373	.572	-.1330	.6829
		3 Years	.20741	.17186	1.000	-.2804	.6952
		5 Years Or More	-.25259	.23789	1.000	-.9278	.4226
	5 Years Or More	1 Year Or Less	.20286	.21875	1.000	-.4180	.8237

		2 Years	.52753	.21601	.155	-.0856	1.1406
		3 Years	.46000	.23566	.523	-.2089	1.1289
		4 Years	.25259	.23789	1.000	-.4226	.9278
Safety	1 Year Or Less	2 Years	.17554	.11029	1.000	-.1375	.4886
		3 Years	.23875	.14568	1.000	-.1747	.6522
		4 Years	-.13545	.14933	1.000	-.5593	.2884
		5 Years Or More	-.08952	.22099	1.000	-.7168	.5377
	2 Years	1 Year Or Less	-.17554	.11029	1.000	-.4886	.1375
		3 Years	.06321	.14145	1.000	-.3383	.4647
		4 Years	-.31099	.14520	.334	-.7231	.1011
		5 Years Or More	-.26506	.21822	1.000	-.8845	.3543
	3 Years	1 Year Or Less	-.23875	.14568	1.000	-.6522	.1747
		2 Years	-.06321	.14145	1.000	-.4647	.3383
		4 Years	-.37420	.17362	.323	-.8670	.1186
		5 Years Or More	-.32828	.23808	1.000	-1.0040	.3475
	4 Years	1 Year Or Less	.13545	.14933	1.000	-.2884	.5593
		2 Years	.31099	.14520	.334	-.1011	.7231
		3 Years	.37420	.17362	.323	-.1186	.8670
		5 Years Or More	.04593	.24033	1.000	-.6362	.7281
	5 Years Or More	1 Year Or Less	.08952	.22099	1.000	-.5377	.7168
		2 Years	.26506	.21822	1.000	-.3543	.8845
		3 Years	.32828	.23808	1.000	-.3475	1.0040
		4 Years	-.04593	.24033	1.000	-.7281	.6362
Student Focus	1 Year Or Less	2 Years	.28817	.11864	.160	-.0486	.6249
		3 Years	.35192	.15672	.258	-.0929	.7967
		4 Years	-.07407	.16064	1.000	-.5300	.3819
		5 Years Or More	-.12222	.23773	1.000	-.7970	.5525
	2 Years	1 Year Or Less	-.28817	.11864	.160	-.6249	.0486

		3 Years	.06375	.15216	1.000	-.3681	.4956
		4 Years	-.36224	.15620	.214	-.8056	.0811
		5 Years Or More	-.41039	.23475	.820	-1.0767	.2559
	3 Years	1 Year Or Less	-.35192	.15672	.258	-.7967	.0929
		2 Years	-.06375	.15216	1.000	-.4956	.3681
		4 Years	-.42599	.18677	.236	-.9561	.1041
		5 Years Or More	-.47414	.25611	.656	-1.2011	.2528
	4 Years	1 Year Or Less	.07407	.16064	1.000	-.3819	.5300
		2 Years	.36224	.15620	.214	-.0811	.8056
		3 Years	.42599	.18677	.236	-.1041	.9561
		5 Years Or More	-.04815	.25853	1.000	-.7820	.6857
	5 Years Or More	1 Year Or Less	.12222	.23773	1.000	-.5525	.7970
		2 Years	.41039	.23475	.820	-.2559	1.0767
		3 Years	.47414	.25611	.656	-.2528	1.2011
		4 Years	.04815	.25853	1.000	-.6857	.7820
Curricula	1 Year Or Less	2 Years	.20707	.12083	.881	-.1359	.5500
		3 Years	.33101	.15961	.394	-.1220	.7840
		4 Years	.15476	.16360	1.000	-.3096	.6191
		5 Years Or More	.01032	.24211	1.000	-.6769	.6975
	2 Years	1 Year Or Less	-.20707	.12083	.881	-.5500	.1359
		3 Years	.12394	.15496	1.000	-.3159	.5638
		4 Years	-.05231	.15908	1.000	-.5038	.3992
		5 Years Or More	-.19675	.23908	1.000	-.8753	.4818
	3 Years	1 Year Or Less	-.33101	.15961	.394	-.7840	.1220
		2 Years	-.12394	.15496	1.000	-.5638	.3159
		4 Years	-.17625	.19021	1.000	-.7161	.3636
		5 Years Or More	-.32069	.26083	1.000	-1.0610	.4196
	4 Years	1 Year Or Less	-.15476	.16360	1.000	-.6191	.3096

		2 Years	.05231	.15908	1.000	-.3992	.5038
		3 Years	.17625	.19021	1.000	-.3636	.7161
		5 Years Or More	-.14444	.26329	1.000	-.8918	.6029
	5 Years Or More	1 Year Or Less	-.01032	.24211	1.000	-.6975	.6769
		2 Years	.19675	.23908	1.000	-.4818	.8753
		3 Years	.32069	.26083	1.000	-.4196	1.0610
		4 Years	.14444	.26329	1.000	-.6029	.8918
Instructor	1 Year Or Less	2 Years	.07879	.11855	1.000	-.2577	.4153
		3 Years	.15304	.15659	1.000	-.2914	.5975
		4 Years	.05291	.16051	1.000	-.4027	.5085
		5 Years Or More	-.09524	.23754	1.000	-.7695	.5790
	2 Years	1 Year Or Less	-.07879	.11855	1.000	-.4153	.2577
		3 Years	.07425	.15204	1.000	-.3573	.5058
		4 Years	-.02588	.15607	1.000	-.4689	.4171
		5 Years Or More	-.17403	.23456	1.000	-.8398	.4917
	3 Years	1 Year Or Less	-.15304	.15659	1.000	-.5975	.2914
		2 Years	-.07425	.15204	1.000	-.5058	.3573
		4 Years	-.10013	.18662	1.000	-.6298	.4296
		5 Years Or More	-.24828	.25590	1.000	-.9746	.4781
	4 Years	1 Year Or Less	-.05291	.16051	1.000	-.5085	.4027
		2 Years	.02588	.15607	1.000	-.4171	.4689
		3 Years	.10013	.18662	1.000	-.4296	.6298
		5 Years Or More	-.14815	.25832	1.000	-.8814	.5851
	5 Years Or More	1 Year Or Less	.09524	.23754	1.000	-.5790	.7695
		2 Years	.17403	.23456	1.000	-.4917	.8398
		3 Years	.24828	.25590	1.000	-.4781	.9746
		4 Years	.14815	.25832	1.000	-.5851	.8814
Course	1 Year Or Less	2 Years	.23581	.12774	.664	-.1268	.5984

		3 Years	.36982	.16873	.295	-.1091	.8487
		4 Years	.06437	.17296	1.000	-.4265	.5553
		5 Years Or More	.04339	.25595	1.000	-.6831	.7699
	2 Years	1 Year Or Less	-.23581	.12774	.664	-.5984	.1268
		3 Years	.13401	.16382	1.000	-.3310	.5990
		4 Years	-.17144	.16817	1.000	-.6488	.3059
		5 Years Or More	-.19242	.25274	1.000	-.9098	.5250
	3 Years	1 Year Or Less	-.36982	.16873	.295	-.8487	.1091
		2 Years	-.13401	.16382	1.000	-.5990	.3310
		4 Years	-.30545	.20108	1.000	-.8762	.2653
		5 Years Or More	-.32644	.27574	1.000	-1.1091	.4562
	4 Years	1 Year Or Less	-.06437	.17296	1.000	-.5553	.4265
		2 Years	.17144	.16817	1.000	-.3059	.6488
		3 Years	.30545	.20108	1.000	-.2653	.8762
		5 Years Or More	-.02099	.27835	1.000	-.8110	.7691
	5 Years Or More	1 Year Or Less	-.04339	.25595	1.000	-.7699	.6831
		2 Years	.19242	.25274	1.000	-.5250	.9098
		3 Years	.32644	.27574	1.000	-.4562	1.1091
		4 Years	.02099	.27835	1.000	-.7691	.8110
Service Culture	1 Year Or Less	2 Years	.25113	.09211	.070	-.0103	.5126
		3 Years	.25329	.12167	.386	-.0921	.5986
		4 Years	.03383	.12472	1.000	-.3202	.3878
		5 Years Or More	-.06198	.18457	1.000	-.5859	.4619
	2 Years	1 Year Or Less	-.25113	.09211	.070	-.5126	.0103
		3 Years	.00217	.11814	1.000	-.3331	.3375
		4 Years	-.21730	.12127	.747	-.5615	.1269
		5 Years Or More	-.31311	.18226	.873	-.8304	.2042
	3 Years	1 Year Or Less	-.25329	.12167	.386	-.5986	.0921

		2 Years	-.00217	.11814	1.000	-.3375	.3331
		4 Years	-.21947	.14501	1.000	-.6310	.1921
		5 Years Or More	-.31527	.19884	1.000	-.8797	.2491
	4 Years	1 Year Or Less	-.03383	.12472	1.000	-.3878	.3202
		2 Years	.21730	.12127	.747	-.1269	.5615
		3 Years	.21947	.14501	1.000	-.1921	.6310
		5 Years Or More	-.09580	.20072	1.000	-.6655	.4739
	5 Years Or More	1 Year Or Less	.06198	.18457	1.000	-.4619	.5859
		2 Years	.31311	.18226	.873	-.2042	.8304
		3 Years	.31527	.19884	1.000	-.2491	.8797
		4 Years	.09580	.20072	1.000	-.4739	.6655
Satisfaction	1 Year Or Less	2 Years	.51053*	.14544	.006	.0977	.9234
		3 Years	.53552	.19212	.058	-.0098	1.0808
		4 Years	.08571	.19693	1.000	-.4732	.6447
		5 Years Or More	.02794	.29143	1.000	-.7992	.8551
	2 Years	1 Year Or Less	-.51053*	.14544	.006	-.9234	-.0977
		3 Years	.02499	.18653	1.000	-.5045	.5544
		4 Years	-.42482	.19148	.276	-.9683	.1187
		5 Years Or More	-.48260	.28778	.951	-1.2994	.3342
	3 Years	1 Year Or Less	-.53552	.19212	.058	-1.0808	.0098
		2 Years	-.02499	.18653	1.000	-.5544	.5045
		4 Years	-.44981	.22896	.508	-1.0997	.2001
		5 Years Or More	-.50759	.31396	1.000	-1.3987	.3835
	4 Years	1 Year Or Less	-.08571	.19693	1.000	-.6447	.4732
		2 Years	.42482	.19148	.276	-.1187	.9683
		3 Years	.44981	.22896	.508	-.2001	1.0997
		5 Years Or More	-.05778	.31693	1.000	-.9573	.8418
	5 Years Or More	1 Year Or Less	-.02794	.29143	1.000	-.8551	.7992

		2 Years	.48260	.28778	.951	-.3342	1.2994
		3 Years	.50759	.31396	1.000	-.3835	1.3987
		4 Years	.05778	.31693	1.000	-.8418	.9573
*. The mean difference is significant at the 0.05 level. Post hoc test based on years study							

Table E.7. Test of Homogeneity of Variances of Countries/Area

Test of Homogeneity of Variances					
		Levene Statistic	df1	df2	Sig.
Infrastructure	Based on Mean	2.860	5	199	.016
	Based on Median	2.230	5	199	.053
	Based on Median and with adjusted df	2.230	5	127.833	.055
	Based on trimmed mean	2.540	5	199	.030
serviceability	Based on Mean	1.772	5	200	.120
	Based on Median	1.546	5	200	.177
	Based on Median and with adjusted df	1.546	5	177.747	.178
	Based on trimmed mean	1.633	5	200	.153
responsiveness	Based on Mean	1.125	5	200	.348
	Based on Median	1.033	5	200	.399
	Based on Median and with adjusted df	1.033	5	189.421	.400
	Based on trimmed mean	1.066	5	200	.381
rapport	Based on Mean	1.822	5	200	.110
	Based on Median	1.310	5	200	.261
	Based on Median and with adjusted df	1.310	5	143.078	.263
	Based on trimmed mean	1.660	5	200	.146
safety	Based on Mean	3.076	5	200	.011
	Based on Median	2.503	5	200	.032
	Based on Median and with adjusted df	2.503	5	167.851	.032
	Based on trimmed mean	2.961	5	200	.013
Student focus	Based on Mean	1.984	5	200	.082
	Based on Median	1.662	5	200	.145
	Based on Median and with adjusted df	1.662	5	185.282	.146
	Based on trimmed mean	1.928	5	200	.091
curricula	Based on Mean	.861	5	200	.508
	Based on Median	.675	5	200	.643
	Based on Median and with adjusted df	.675	5	186.236	.643
	Based on trimmed mean	.838	5	200	.524

instructor	Based on Mean	1.663	5	200	.145
	Based on Median	1.749	5	200	.125
	Based on Median and with adjusted df	1.749	5	188.238	.125
	Based on trimmed mean	1.676	5	200	.142
course	Based on Mean	1.659	5	200	.146
	Based on Median	1.419	5	200	.219
	Based on Median and with adjusted df	1.419	5	180.598	.220
	Based on trimmed mean	1.593	5	200	.164
service culture	Based on Mean	2.289	5	200	.047
	Based on Median	2.202	5	200	.056
	Based on Median and with adjusted df	2.202	5	195.715	.056
	Based on trimmed mean	2.289	5	200	.047
satisfaction	Based on Mean	1.108	5	200	.357
	Based on Median	.558	5	200	.732
	Based on Median and with adjusted df	.558	5	149.202	.732
	Based on trimmed mean	.908	5	200	.477

Table E.8. ANOVA of Countries/Area

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Infrastructure	Between Groups	4.475	5	.895	2.154	.061
	Within Groups	82.676	199	.415		
	Total	87.151	204			
Service Ability	Between Groups	1.068	5	.214	.517	.763
	Within Groups	82.587	200	.413		
	Total	83.655	205			
Responsiveness	Between Groups	2.463	5	.493	.973	.436
	Within Groups	101.279	200	.506		
	Total	103.742	205			
Rapport	Between Groups	3.539	5	.708	1.664	.145
	Within Groups	85.079	200	.425		
	Total	88.618	205			
Safety	Between Groups	2.861	5	.572	1.343	.248
	Within Groups	85.230	200	.426		
	Total	88.091	205			
Student Focus	Between Groups	3.076	5	.615	1.217	.302
	Within Groups	101.112	200	.506		
	Total	104.188	205			
Curricula	Between Groups	2.524	5	.505	.990	.425
	Within Groups	101.966	200	.510		
	Total	104.490	205			
Instructor	Between Groups	2.050	5	.410	.849	.516
	Within Groups	96.565	200	.483		
	Total	98.615	205			
Course	Between Groups	1.886	5	.377	.653	.659
	Within Groups	115.451	200	.577		
	Total	117.336	205			
Service Culture	Between Groups	1.212	5	.242	.793	.556
	Within Groups	61.135	200	.306		
	Total	62.347	205			
Satisfaction	Between Groups	5.324	5	1.065	1.378	.234
	Within Groups	154.582	200	.773		
	Total	159.905	205			

Table E.9. Post hoc test based on Countries/Area

Multiple Comparisons							
Bonferroni							
Dependent Variable	(I) What is area in the world	(J) What is area in the world	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Infrastructure	South America	East Asia	.16766	.12507	1.000	-.2039	.5393
		Europe	-.16128	.20347	1.000	-.7658	.4432
		Africa	.39367	.17096	.335	-.1142	.9016
		West, South and Central Asia	-.02998	.12886	1.000	-.4128	.3529
		Other, please specify:	.35795	.46602	1.000	-1.0266	1.7425
	East Asia	South America	-.16766	.12507	1.000	-.5393	.2039
		Europe	-.32893	.19534	1.000	-.9093	.2514
		Africa	.22601	.16120	1.000	-.2529	.7049
		West, South and Central Asia	-.19763	.11560	1.000	-.5411	.1458
		Other, please specify:	.19030	.46252	1.000	-1.1839	1.5645
	Europe	South America	.16128	.20347	1.000	-.4432	.7658
		East Asia	.32893	.19534	1.000	-.2514	.9093
		Africa	.55495	.22747	.234	-.1209	1.2308
		West, South and Central Asia	.13130	.19779	1.000	-.4563	.7189
		Other, please specify:	.51923	.48958	1.000	-.9353	1.9738
	Africa	South America	-.39367	.17096	.335	-.9016	.1142
		East Asia	-.22601	.16120	1.000	-.7049	.2529
		Europe	-.55495	.22747	.234	-1.2308	.1209
		West, South and Central Asia	-.42365	.16415	.159	-.9114	.0641
		Other, please specify:	-.03571	.47698	1.000	-1.4529	1.3814
	West, South and Central Asia	South America	.02998	.12886	1.000	-.3529	.4128

		East Asia	.19763	.11560	1.000	-.1458	.5411
		Europe	-.13130	.19779	1.000	-.7189	.4563
		Africa	.42365	.16415	.159	-.0641	.9114
		Other, please specify:	.38793	.46356	1.000	-.9893	1.7652
	Other, please specify:	South America	-.35795	.46602	1.000	-1.7425	1.0266
		East Asia	-.19030	.46252	1.000	-1.5645	1.1839
		Europe	-.51923	.48958	1.000	-1.9738	.9353
		Africa	.03571	.47698	1.000	-1.3814	1.4529
		West, South and Central Asia	-.38793	.46356	1.000	-1.7652	.9893
Service Ability	South America	East Asia	.02985	.12469	1.000	-.3406	.4003
		Europe	-.16667	.19718	1.000	-.7525	.4191
		Africa	.16402	.17044	1.000	-.3423	.6704
		West, South and Central Asia	.06897	.12847	1.000	-.3127	.4506
		Other, please specify:	.15079	.46460	1.000	-1.2295	1.5311
	East Asia	South America	-.02985	.12469	1.000	-.4003	.3406
		Europe	-.19652	.18883	1.000	-.7575	.3645
		Africa	.13417	.16071	1.000	-.3433	.6116
		West, South and Central Asia	.03911	.11525	1.000	-.3033	.3815
		Other, please specify:	.12094	.46112	1.000	-1.2490	1.4909
	Europe	South America	.16667	.19718	1.000	-.4191	.7525
		East Asia	.19652	.18883	1.000	-.3645	.7575
		Africa	.33069	.22172	1.000	-.3280	.9894
		West, South and Central Asia	.23563	.19135	1.000	-.3328	.8041
		Other, please specify:	.31746	.48576	1.000	-1.1257	1.7606
	Africa	South America	-.16402	.17044	1.000	-.6704	.3423
		East Asia	-.13417	.16071	1.000	-.6116	.3433
		Europe	-.33069	.22172	1.000	-.9894	.3280
		West, South and Central Asia	-.09506	.16366	1.000	-.5813	.3911

	West, South and Central Asia	Other, please specify:	-.01323	.47553	1.000	-1.4260	1.3995
		South America	-.06897	.12847	1.000	-.4506	.3127
		East Asia	-.03911	.11525	1.000	-.3815	.3033
		Europe	-.23563	.19135	1.000	-.8041	.3328
		Africa	.09506	.16366	1.000	-.3911	.5813
		Other, please specify:	.08183	.46215	1.000	-1.2912	1.4548
	Other, please specify:	South America	-.15079	.46460	1.000	-1.5311	1.2295
		East Asia	-.12094	.46112	1.000	-1.4909	1.2490
		Europe	-.31746	.48576	1.000	-1.7606	1.1257
		Africa	.01323	.47553	1.000	-1.3995	1.4260
		West, South and Central Asia	-.08183	.46215	1.000	-1.4548	1.2912
Responsiveness	South America	East Asia	.08589	.13808	1.000	-.3243	.4961
		Europe	-.34545	.21836	1.000	-.9942	.3033
		Africa	.04978	.18874	1.000	-.5109	.6105
		West, South and Central Asia	.09248	.14227	1.000	-.3302	.5151
		Other, please specify:	-.04545	.51450	1.000	-1.5740	1.4831
	East Asia	South America	-.08589	.13808	1.000	-.4961	.3243
		Europe	-.43134	.20912	.606	-1.0526	.1899
		Africa	-.03611	.17797	1.000	-.5648	.4926
		West, South and Central Asia	.00659	.12763	1.000	-.3726	.3858
		Other, please specify:	-.13134	.51064	1.000	-1.6484	1.3857
	Europe	South America	.34545	.21836	1.000	-.3033	.9942
		East Asia	.43134	.20912	.606	-.1899	1.0526
		Africa	.39524	.24553	1.000	-.3342	1.1247
		West, South and Central Asia	.43793	.21190	.601	-.1916	1.0675
		Other, please specify:	.30000	.53793	1.000	-1.2981	1.8981
	Africa	South America	-.04978	.18874	1.000	-.6105	.5109
		East Asia	.03611	.17797	1.000	-.4926	.5648

		Europe	.39524	.24553	1.000	-1.1247	.3342
		West, South and Central Asia	.04269	.18123	1.000	-.4957	.5811
		Other, please specify:	-.09524	.52660	1.000	-1.6597	1.4692
	West, South and Central Asia	South America	-.09248	.14227	1.000	-.5151	.3302
		East Asia	-.00659	.12763	1.000	-.3858	.3726
		Europe	-.43793	.21190	.601	-1.0675	.1916
		Africa	-.04269	.18123	1.000	-.5811	.4957
		Other, please specify:	-.13793	.51179	1.000	-1.6584	1.3825
	Other, please specify:	South America	.04545	.51450	1.000	-1.4831	1.5740
		East Asia	.13134	.51064	1.000	-1.3857	1.6484
		Europe	-.30000	.53793	1.000	-1.8981	1.2981
		Africa	.09524	.52660	1.000	-1.4692	1.6597
		West, South and Central Asia	.13793	.51179	1.000	-1.3825	1.6584
rapport	South America	East Asia	.14912	.12656	1.000	-.2269	.5251
		Europe	-.16623	.20013	1.000	-.7608	.4283
		Africa	-.09481	.17299	1.000	-.6087	.4191
		West, South and Central Asia	.19091	.13039	1.000	-.1965	.5783
		Other, please specify:	.69091	.47156	1.000	-.7100	2.0918
	East Asia	South America	-.14912	.12656	1.000	-.5251	.2269
		Europe	-.31535	.19166	1.000	-.8848	.2541
		Africa	-.24392	.16311	1.000	-.7285	.2407
		West, South and Central Asia	.04179	.11698	1.000	-.3057	.3893
		Other, please specify:	.54179	.46803	1.000	-.8487	1.9322
	Europe	South America	.16623	.20013	1.000	-.4283	.7608
		East Asia	.31535	.19166	1.000	-.2541	.8848
		Africa	.07143	.22504	1.000	-.5971	.7400
		West, South and Central Asia	.35714	.19422	1.000	-.2198	.9341
		Other, please specify:	.85714	.49304	1.000	-.6076	2.3219

	Africa	South America	.09481	.17299	1.000	-.4191	.6087
		East Asia	.24392	.16311	1.000	-.2407	.7285
		Europe	-.07143	.22504	1.000	-.7400	.5971
		West, South and Central Asia	.28571	.16611	1.000	-.2078	.7792
		Other, please specify:	.78571	.48265	1.000	-.6482	2.2196
	West, South and Central Asia	South America	-.19091	.13039	1.000	-.5783	.1965
		East Asia	-.04179	.11698	1.000	-.3893	.3057
		Europe	-.35714	.19422	1.000	-.9341	.2198
		Africa	-.28571	.16611	1.000	-.7792	.2078
		Other, please specify:	.50000	.46908	1.000	-.8936	1.8936
	Other, please specify:	South America	-.69091	.47156	1.000	-2.0918	.7100
		East Asia	-.54179	.46803	1.000	-1.9322	.8487
		Europe	-.85714	.49304	1.000	-2.3219	.6076
		Africa	-.78571	.48265	1.000	-2.2196	.6482
		West, South and Central Asia	-.50000	.46908	1.000	-1.8936	.8936
safety	South America	East Asia	.16861	.12667	1.000	-.2077	.5449
		Europe	.15731	.20031	1.000	-.4378	.7524
		Africa	.29064	.17314	1.000	-.2237	.8050
		West, South and Central Asia	.19056	.13051	1.000	-.1972	.5783
		Other, please specify:	.97159	.47197	.612	-.4306	2.3738
	East Asia	South America	-.16861	.12667	1.000	-.5449	.2077
		Europe	-.01130	.19183	1.000	-.5812	.5586
		Africa	.12203	.16326	1.000	-.3630	.6071
		West, South and Central Asia	.02195	.11708	1.000	-.3259	.3698
		Other, please specify:	.80299	.46844	1.000	-.5887	2.1947
	Europe	South America	-.15731	.20031	1.000	-.7524	.4378
		East Asia	.01130	.19183	1.000	-.5586	.5812
		Africa	.13333	.22524	1.000	-.5358	.8025

		West, South and Central Asia	.03325	.19439	1.000	-.5443	.6108
		Other, please specify:	.81429	.49347	1.000	-.6518	2.2803
	Africa	South America	-.29064	.17314	1.000	-.8050	.2237
		East Asia	-.12203	.16326	1.000	-.6071	.3630
		Europe	-.13333	.22524	1.000	-.8025	.5358
		West, South and Central Asia	-.10008	.16625	1.000	-.5940	.3938
		Other, please specify:	.68095	.48308	1.000	-.7542	2.1161
	West, South and Central Asia	South America	-.19056	.13051	1.000	-.5783	.1972
		East Asia	-.02195	.11708	1.000	-.3698	.3259
		Europe	-.03325	.19439	1.000	-.6108	.5443
		Africa	.10008	.16625	1.000	-.3938	.5940
		Other, please specify:	.78103	.46949	1.000	-.6138	2.1758
	Other, please specify:	South America	-.97159	.47197	.612	-2.3738	.4306
		East Asia	-.80299	.46844	1.000	-2.1947	.5887
		Europe	-.81429	.49347	1.000	-2.2803	.6518
		Africa	-.68095	.48308	1.000	-2.1161	.7542
		West, South and Central Asia	-.78103	.46949	1.000	-2.1758	.6138
studentfocus	South America	East Asia	.06542	.13797	1.000	-.3445	.4753
		Europe	-.07062	.21818	1.000	-.7188	.5776
		Africa	.04843	.18858	1.000	-.5118	.6087
		West, South and Central Asia	-.03860	.14215	1.000	-.4609	.3837
		Other, please specify:	1.15795	.51407	.381	-.3693	2.6852
	East Asia	South America	-.06542	.13797	1.000	-.4753	.3445
		Europe	-.13603	.20894	1.000	-.7568	.4847
		Africa	-.01699	.17782	1.000	-.5453	.5113
		West, South and Central Asia	-.10401	.12752	1.000	-.4829	.2748
		Other, please specify:	1.09254	.51022	.502	-.4233	2.6083
	Europe	South America	.07062	.21818	1.000	-.5776	.7188

		East Asia	.13603	.20894	1.000	-.4847	.7568
		Africa	.11905	.24533	1.000	-.6098	.8479
		West, South and Central Asia	.03202	.21173	1.000	-.5970	.6610
		Other, please specify:	1.22857	.53749	.350	-.3682	2.8254
	Africa	South America	-.04843	.18858	1.000	-.6087	.5118
		East Asia	.01699	.17782	1.000	-.5113	.5453
		Europe	-.11905	.24533	1.000	-.8479	.6098
		West, South and Central Asia	-.08703	.18108	1.000	-.6250	.4509
		Other, please specify:	1.10952	.52617	.543	-.4537	2.6727
	West, South and Central Asia	South America	.03860	.14215	1.000	-.3837	.4609
		East Asia	.10401	.12752	1.000	-.2748	.4829
		Europe	-.03202	.21173	1.000	-.6610	.5970
		Africa	.08703	.18108	1.000	-.4509	.6250
		Other, please specify:	1.19655	.51137	.304	-.3227	2.7158
	Other, please specify:	South America	-1.15795	.51407	.381	-2.6852	.3693
		East Asia	-1.09254	.51022	.502	-2.6083	.4233
		Europe	-1.22857	.53749	.350	-2.8254	.3682
		Africa	-1.10952	.52617	.543	-2.6727	.4537
		West, South and Central Asia	-1.19655	.51137	.304	-2.7158	.3227
curricula	South America	East Asia	.12890	.13855	1.000	-.2827	.5405
		Europe	.01136	.21910	1.000	-.6395	.6623
		Africa	-.10173	.18938	1.000	-.6644	.4609
		West, South and Central Asia	.10619	.14275	1.000	-.3179	.5303
		Other, please specify:	.88636	.51624	1.000	-.6473	2.4200
	East Asia	South America	-.12890	.13855	1.000	-.5405	.2827
		Europe	-.11754	.20982	1.000	-.7409	.5058
		Africa	-.23063	.17857	1.000	-.7611	.2999
		West, South and Central Asia	-.02271	.12806	1.000	-.4032	.3577

	Europe	Other, please specify:	.75746	.51237	1.000	-.7647	2.2797
		South America	-.01136	.21910	1.000	-.6623	.6395
		East Asia	.11754	.20982	1.000	-.5058	.7409
		Africa	-.11310	.24636	1.000	-.8450	.6188
		West, South and Central Asia	.09483	.21262	1.000	-.5368	.7265
		Other, please specify:	.87500	.53975	1.000	-.7285	2.4785
	Africa	South America	.10173	.18938	1.000	-.4609	.6644
		East Asia	.23063	.17857	1.000	-.2999	.7611
		Europe	.11310	.24636	1.000	-.6188	.8450
		West, South and Central Asia	.20792	.18185	1.000	-.3323	.7482
		Other, please specify:	.98810	.52839	.944	-.5817	2.5579
	West, South and Central Asia	South America	-.10619	.14275	1.000	-.5303	.3179
		East Asia	.02271	.12806	1.000	-.3577	.4032
		Europe	-.09483	.21262	1.000	-.7265	.5368
		Africa	-.20792	.18185	1.000	-.7482	.3323
		Other, please specify:	.78017	.51352	1.000	-.7454	2.3058
	Other, please specify:	South America	-.88636	.51624	1.000	-2.4200	.6473
		East Asia	-.75746	.51237	1.000	-2.2797	.7647
		Europe	-.87500	.53975	1.000	-2.4785	.7285
		Africa	-.98810	.52839	.944	-2.5579	.5817
		West, South and Central Asia	-.78017	.51352	1.000	-2.3058	.7454
instructor	South America	East Asia	.09559	.13483	1.000	-.3050	.4962
		Europe	-.03831	.21321	1.000	-.6717	.5951
		Africa	-.04784	.18430	1.000	-.5954	.4997
		West, South and Central Asia	.07351	.13892	1.000	-.3392	.4862
		Other, please specify:	.90455	.50238	1.000	-.5880	2.3970
	East Asia	South America	-.09559	.13483	1.000	-.4962	.3050
		Europe	-.13390	.20419	1.000	-.7405	.4727

		Africa	.14343	.17378	1.000	-.6597	.3728
		West, South and Central Asia	-.02208	.12462	1.000	-.3923	.3482
		Other, please specify:	.80896	.49862	1.000	-.6724	2.2903
	Europe	South America	.03831	.21321	1.000	-.5951	.6717
		East Asia	.13390	.20419	1.000	-.4727	.7405
		Africa	-.00952	.23975	1.000	-.7218	.7027
		West, South and Central Asia	.11182	.20691	1.000	-.5029	.7265
		Other, please specify:	.94286	.52526	1.000	-.6176	2.5033
	Africa	South America	.04784	.18430	1.000	-.4997	.5954
		East Asia	.14343	.17378	1.000	-.3728	.6597
		Europe	.00952	.23975	1.000	-.7027	.7218
		West, South and Central Asia	.12135	.17696	1.000	-.4044	.6471
		Other, please specify:	.95238	.51420	.982	-.5752	2.4800
	West, South and Central Asia	South America	-.07351	.13892	1.000	-.4862	.3392
		East Asia	.02208	.12462	1.000	-.3482	.3923
		Europe	-.11182	.20691	1.000	-.7265	.5029
		Africa	-.12135	.17696	1.000	-.6471	.4044
		Other, please specify:	.83103	.49974	1.000	-.6536	2.3157
	Other, please specify:	South America	-.90455	.50238	1.000	-2.3970	.5880
		East Asia	-.80896	.49862	1.000	-2.2903	.6724
		Europe	-.94286	.52526	1.000	-2.5033	.6176
		Africa	-.95238	.51420	.982	-2.4800	.5752
		West, South and Central Asia	-.83103	.49974	1.000	-2.3157	.6536
course	South America	East Asia	-.05283	.14743	1.000	-.4908	.3852
		Europe	-.05763	.23313	1.000	-.7502	.6350
		Africa	-.16080	.20151	1.000	-.7595	.4379
		West, South and Central Asia	.08666	.15189	1.000	-.3646	.5379
		Other, please specify:	.58523	.54931	1.000	-1.0467	2.2172

	East Asia	South America	.05283	.14743	1.000	-.3852	.4908
		Europe	-.00480	.22327	1.000	-.6681	.6585
		Africa	-.10797	.19001	1.000	-.6725	.4565
		West, South and Central Asia	.13950	.13627	1.000	-.2653	.5443
		Other, please specify:	.63806	.54520	1.000	-.9817	2.2578
	Europe	South America	.05763	.23313	1.000	-.6350	.7502
		East Asia	.00480	.22327	1.000	-.6585	.6681
		Africa	-.10317	.26215	1.000	-.8820	.6756
		West, South and Central Asia	.14429	.22624	1.000	-.5278	.8164
		Other, please specify:	.64286	.57433	1.000	-1.0634	2.3491
	Africa	South America	.16080	.20151	1.000	-.4379	.7595
		East Asia	.10797	.19001	1.000	-.4565	.6725
		Europe	.10317	.26215	1.000	-.6756	.8820
		West, South and Central Asia	.24747	.19350	1.000	-.3274	.8223
		Other, please specify:	.74603	.56224	1.000	-.9243	2.4164
	West, South and Central Asia	South America	-.08666	.15189	1.000	-.5379	.3646
		East Asia	-.13950	.13627	1.000	-.5443	.2653
		Europe	-.14429	.22624	1.000	-.8164	.5278
		Africa	-.24747	.19350	1.000	-.8223	.3274
		Other, please specify:	.49856	.54642	1.000	-1.1248	2.1219
	Other, please specify:	South America	-.58523	.54931	1.000	-2.2172	1.0467
		East Asia	-.63806	.54520	1.000	-2.2578	.9817
		Europe	-.64286	.57433	1.000	-2.3491	1.0634
		Africa	-.74603	.56224	1.000	-2.4164	.9243
		West, South and Central Asia	-.49856	.54642	1.000	-2.1219	1.1248
service_culture	South America	East Asia	.09313	.10728	1.000	-.2256	.4119
		Europe	-.08728	.16965	1.000	-.5913	.4167

		Africa	.06015	.14664	1.000	-.3755	.4958
		West, South and Central Asia	.08230	.11053	1.000	-.2461	.4107
		Other, please specify:	.62888	.39973	1.000	-.5587	1.8164
	East Asia	South America	-.09313	.10728	1.000	-.4119	.2256
		Europe	-.18041	.16247	1.000	-.6631	.3023
		Africa	-.03298	.13827	1.000	-.4438	.3778
		West, South and Central Asia	-.01083	.09916	1.000	-.3054	.2838
		Other, please specify:	.53574	.39674	1.000	-.6429	1.7144
	Europe	South America	.08728	.16965	1.000	-.4167	.5913
		East Asia	.18041	.16247	1.000	-.3023	.6631
		Africa	.14743	.19076	1.000	-.4193	.7142
		West, South and Central Asia	.16958	.16463	1.000	-.3195	.6587
		Other, please specify:	.71615	.41794	1.000	-.5255	1.9578
	Africa	South America	-.06015	.14664	1.000	-.4958	.3755
		East Asia	.03298	.13827	1.000	-.3778	.4438
		Europe	-.14743	.19076	1.000	-.7142	.4193
		West, South and Central Asia	.02215	.14081	1.000	-.3962	.4405
		Other, please specify:	.56872	.40914	1.000	-.6468	1.7842
	West, South and Central Asia	South America	-.08230	.11053	1.000	-.4107	.2461
		East Asia	.01083	.09916	1.000	-.2838	.3054
		Europe	-.16958	.16463	1.000	-.6587	.3195
		Africa	-.02215	.14081	1.000	-.4405	.3962
		Other, please specify:	.54658	.39763	1.000	-.6347	1.7279
	Other, please specify:	South America	-.62888	.39973	1.000	-1.8164	.5587
		East Asia	-.53574	.39674	1.000	-1.7144	.6429
		Europe	-.71615	.41794	1.000	-1.9578	.5255
		Africa	-.56872	.40914	1.000	-1.7842	.6468

		West, South and Central Asia	.54658	.39763	1.000	-1.7279	.6347
satisfaction	South America	East Asia	.21832	.17059	1.000	-.2885	.7251
		Europe	-.08701	.26977	1.000	-.8885	.7144
		Africa	.17013	.23318	1.000	-.5226	.8629
		West, South and Central Asia	.39279	.17576	.398	-.1294	.9150
		Other, please specify:	.52727	.63563	1.000	-1.3611	2.4156
	East Asia	South America	-.21832	.17059	1.000	-.7251	.2885
		Europe	-.30533	.25835	1.000	-1.0728	.4622
		Africa	-.04819	.21987	1.000	-.7014	.6050
		West, South and Central Asia	.17447	.15768	1.000	-.2940	.6429
		Other, please specify:	.30896	.63086	1.000	-1.5653	2.1832
	Europe	South America	.08701	.26977	1.000	-.7144	.8885
		East Asia	.30533	.25835	1.000	-.4622	1.0728
		Africa	.25714	.30334	1.000	-.6440	1.1583
		West, South and Central Asia	.47980	.26179	1.000	-.2979	1.2575
		Other, please specify:	.61429	.66458	1.000	-1.3601	2.5887
	Africa	South America	-.17013	.23318	1.000	-.8629	.5226
		East Asia	.04819	.21987	1.000	-.6050	.7014
		Europe	-.25714	.30334	1.000	-1.1583	.6440
		West, South and Central Asia	.22266	.22390	1.000	-.4425	.8878
		Other, please specify:	.35714	.65058	1.000	-1.5757	2.2899
	West, South and Central Asia	South America	-.39279	.17576	.398	-.9150	.1294
		East Asia	-.17447	.15768	1.000	-.6429	.2940
		Europe	-.47980	.26179	1.000	-1.2575	.2979
		Africa	-.22266	.22390	1.000	-.8878	.4425
		Other, please specify:	.13448	.63228	1.000	-1.7439	2.0129
	Other, please specify:	South America	-.52727	.63563	1.000	-2.4156	1.3611

		East Asia	-.30896	.63086	1.000	-2.1832	1.5653
		Europe	-.61429	.66458	1.000	-2.5887	1.3601
		Africa	-.35714	.65058	1.000	-2.2899	1.5757
		West, South and Central Asia	-.13448	.63228	1.000	-2.0129	1.7439

Appendix F

Cronbach's Alpha Test; EFA and Regression Results

Table F.1. Cronbach's Alpha test for Infrastructure

INFRASTRUCTURE	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
This campus environment is visually attractive.	0.494	0.803	0.800			0.803
The learning spaces on campus meet international standards (for example rooms are warm in winter and air-conditioned, as need)	0.634	0.739		0.628	0.754	
The campus libraries, computer rooms, self-study areas meet my needs as a student.	0.681	0.715		0.699	0.679	
Websites, servers, campus alerts, digital forums, and email communications (PAWS and Blackboard systems) provide timely information	0.645	0.733		0.623	0.758	
Cronbach’s Alpha for Infrastructure						

Table F.2. Cronbach's Alpha test for Responsiveness

RESPONSIVENESS	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
There are appropriate and readily available ways for me to express my feedback on student services, if I choose.	0.531	0.877	0.864			0.877
I am confident that support staff/administrator have the capacity to work with me when and if problems arise.	0.693	0.834		0.676	0.865	
I am confident that faculty members have the capacity to work with me when and if problems arise.	0.762	0.816		0.791	0.821	
My requests (or inquiries) are responded to in an appropriate and timely fashion by support staff/administrators.	0.735	0.822		0.750	0.836	

My requests (or inquiries) are responded to in an appropriate and timely fashion by faculty members.	0.725	0.824		0.728	0.846	
Cronbach's Alpha for Responsiveness						

Table F.3. Cronbach's Alpha test for Rapport

RAPPORT	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
The quality of University of Saskatchewan support staff/administrators is high.	0.677	0.842	0.866
The quality of University faculty members is high.	0.633	0.853	
I have found support staff/administrators to be friendly and courteous.	0.721	0.833	
I have found faculty members to be friendly and courteous.	0.707	0.835	
In my experience, support staff/administrators are well trained and knowledgeable on rules and procedures.	0.733	0.826	
Cronbach’s Alpha for Rapport			

Table F.4. Cronbach's Alpha test for Safety

SAFETY	Corrected Item- Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
The security and safety measures that are in place at this university provide me with confidence that I'll be okay.	0.525	0.733	0.77
I am sure that my personal and academic information is kept confidential.	0.491	0.745	
The health care services provided by this University are excellent.	0.433	0.766	
This University's recreational facilities available to students are excellent.	0.656	0.685	
This university campus provides ample opportunities for student entertainment.	0.613	0.701	
Cronbach's Alpha for Safety			

Table F.5. Cronbach's Alpha Test for Service Ability

SERVICE ABILITY	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
Support staff/administrators display a sincere interest in working with me to solve any problems that arise.	0.584	0.885	0.892	0.613	0.888	0.895	0.606	0.897	0.9	0.593	0.906	0.903			0.906
Faculty members display sincere interest in working with me to solve any problems that arise.	0.712	0.875		0.723	0.878		0.741	0.881		0.765	0.881		0.772	0.884	
When I, or a fellow student, have had problems, support staff/administrators have provided helpful and reliable advice.	0.762	0.871		0.781	0.873		0.791	0.876		0.783	0.878		0.754	0.888	
When I, or a fellow student, have had problems, faculty members have provided helpful and reliable advice.	0.766	0.870		0.766	0.873		0.787	0.875		0.790	0.877		0.813	0.875	
In my experience, U of S support staff/administrators are trustworthy.	0.753	0.872		0.763	0.875		0.758	0.880		0.736	0.885		0.697	0.899	
In my experience, faculty members are trustworthy.	0.719	0.874		0.726	0.877		0.727	0.883		0.748	0.883		0.790	0.880	
Student services on campus are delivered as promised.	0.612	0.883		0.576	0.891		0.546	0.903							
Self-service through "Connection Point" (website) provides easy access to services (i.e., ordering transcripts).	0.460	0.895													
International student services (ISSAC) provides helpful services.	0.526	0.891		0.501	0.901										
Cronbach's Alpha for SERVICE ABILITY															

Table F.6. Cronbach's Alpha Test for Student Focus

STUDENT FOCUS	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
In my experience, office and access hours for services and facilities are convenient.	0.460	0.831	0.823			0.831
Specialized services for international students at the University of Saskatchewan are excellent.	0.654	0.777		0.591	0.818	
I have experienced fairness and impartiality at this University.	0.659	0.776		0.691	0.773	
I feel there is freedom to express my opinions on this campus.	0.663	0.775		0.690	0.773	
This University facilitates and promotes student organizations.	0.673	0.778		0.689	0.781	
Cronbach’s Alpha for Student Focus						

Table F.7. Cronbach's Alpha Test for Curricula

CURRICULA	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
In my experience, the course curricula are up to date.	0.640	0.751	0.808	0.665	0.761	0.82
The learning materials provided by the instructors are excellent.	0.758	0.690		0.758	0.662	
In my experience, the assessment and the grading of course work by faculty is done fairly.	0.620	0.761		0.605	0.818	
The times of the classes are well scheduled.	0.489	0.820				
Cronbach’s Alpha for Curricula						

Table F.8. Cronbach's Alpha Test for Instructor

INSTRUCTOR	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
My instructors have thorough knowledge of the course/subject content.	0.724	0.874	0.894
My instructors regularly provide opportunities for students to ask questions.	0.705	0.878	
My instructors communicate the course subject material effectively.	0.781	0.861	
My instructors make the course learning as interesting as possible.	0.828	0.849	
My instructors provide me with timely feedback about my progress.	0.670	0.887	
Cronbach’s Alpha for Instructor			

Table F.9. Cronbach's Alpha Test for Course

COURSE	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
In my experience this University provides programs that have flexible structures (i.e., full time, part time, distance learn	0.623	0.805	0.833
This University provides a wide range of programs with specialties.	0.644	0.802	
The courses that I have taken have been well-structured to achieve the stated learning outcomes.	0.667	0.795	
In my experience, course objectives are clearly stated in the syllabus.	0.702	0.791	
The tuition and fees assessed by this University for my course and program are reasonable.	0.580	0.818	
There are sufficient opportunities for international student scholarships at this University.	0.546	0.827	
Cronbach’s Alpha for Course			

Table F.10. Cronbach's Alpha Test for Overall Satisfaction

SATISFACTION	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
Overall, I am satisfied with my study experiences at the University of Saskatchewan.	0.836	0.895	0.92	0.834	0.912	0.93
PI would recommend the University of Saskatchewan to my friends, family, and colleagues.	0.845	0.891		0.859	0.902	
The quality of study at the University of Saskatchewan has met my expectations in most regards.	0.821	0.897		0.835	0.910	
Knowing what I do, through experience, if I had a choice to experience university all over again, I would enroll in the University	0.839	0.893		0.840	0.913	
The "brand name reputation" of this University is high.	0.654	0.930				
Cronbach’s Alpha for Overall Satisfaction						

Table F.11. Summary of Cronbach's Alpha Test

DIMENSIONS	ITEMS	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
INRASTRUCTURE	INRASTRUCTURE 2	0.628	0.754	0.803
	INRASTRUCTURE 3	0.699	0.679	
	INRASTRUCTURE 4	0.623	0.758	
SERVICE ABILITY	SERVICE ABILITY 2	0.772	0.884	0.906
	SERVICE ABILITY 3	0.754	0.888	
	SERVICE ABILITY 4	0.813	0.875	
	SERVICE ABILITY 5	0.697	0.899	
	SERVICE ABILITY 6	0.790	0.880	
RESPONSIVENESS	RESPONSIVENESS 2	0.676	0.865	0.877

	RESPONSIVENESS 3	0.791	0.821	
	RESPONSIVENESS 4	0.750	0.836	
	RESPONSIVENESS 5	0.728	0.846	
RAPPORT	RAPPORT 1	0.677	0.842	0.866
	RAPPORT 2	0.633	0.853	
	RAPPORT 3	0.721	0.833	
	RAPPORT 4	0.707	0.835	
	RAPPORT 5	0.733	0.826	
SAFETY	SAFETY 1	0.525	0.733	0.77
	SAFETY 2	0.491	0.745	
	SAFETY 3	0.433	0.766	
	SAFETY 4	0.656	0.685	
	SAFETY 5	0.613	0.701	
STUDENT FOCUS	STUDENT FOCUS 2	0.591	0.818	0.831
	STUDENT FOCUS 3	0.691	0.773	
	STUDENT FOCUS 4	0.690	0.773	
	STUDENT FOCUS 5	0.689	0.781	
CURRICULA	CURRICULA 1	0.665	0.761	0.82
	CURRICULA 2	0.758	0.662	
	CURRICULA 3	0.605	0.818	
INSTRUCTOR	INSTRUCTOR 1	0.724	0.874	0.894
	INSTRUCTOR 2	0.705	0.878	
	INSTRUCTOR 3	0.781	0.861	
	INSTRUCTOR 4	0.828	0.849	
	INSTRUCTOR 5	0.670	0.887	
COURSE	COURSE 1	0.623	0.805	0.833
	COURSE 2	0.644	0.802	
	COURSE 3	0.667	0.795	
	COURSE 4	0.702	0.791	
	COURSE 5	0.580	0.818	
	COURSE 6	0.546	0.827	
SATISFACTION	SATISFACTION 1	0.834	0.912	0.93
	SATISFACTION 2	0.859	0.902	
	SATISFACTION 3	0.835	0.910	
	SATISFACTION 4	0.840	0.913	

Table F.12. Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	14.521	44.002	44.002	14.521	44.002	44.002	6.313	19.131	19.131
2	2.216	6.714	50.716	2.216	6.714	50.716	3.737	11.323	30.454
3	1.801	5.458	56.174	1.801	5.458	56.174	3.735	11.317	41.771
4	1.565	4.742	60.916	1.565	4.742	60.916	2.759	8.359	50.131
5	1.185	3.590	64.506	1.185	3.590	64.506	2.531	7.671	57.802
6	1.144	3.468	67.974	1.144	3.468	67.974	2.438	7.388	65.190
7	1.014	3.073	71.047	1.014	3.073	71.047	1.933	5.857	71.047
8	.870	2.636	73.682						
9	.759	2.299	75.981						
10	.664	2.012	77.993						
11	.603	1.826	79.819						
12	.580	1.756	81.576						
13	.517	1.566	83.142						
14	.481	1.457	84.599						
15	.455	1.378	85.976						
16	.431	1.307	87.283						
17	.403	1.221	88.504						
18	.384	1.164	89.668						
19	.361	1.093	90.761						
20	.337	1.022	91.782						
21	.321	.974	92.756						
22	.313	.949	93.705						
23	.281	.852	94.557						
24	.253	.766	95.324						
25	.239	.723	96.047						
26	.223	.676	96.722						
27	.213	.647	97.369						
28	.190	.575	97.944						
29	.178	.539	98.484						
30	.152	.460	98.944						
31	.141	.428	99.372						
32	.118	.358	99.730						

33	.089	.270	100.000						
Extraction Method: Principal Component Analysis.									
Total Variance Explained									

Table F.13. Rotated Component Matrix

	Component						
	1	2	3	4	5	6	7
My instructors make the course learning as interesting as possible.	0.764						
The learning materials provided by the instructors are excellent.	0.762						
My instructors communicate the course subject material effectively.	0.747						
My instructors have thorough knowledge of the course/subject content.	0.737						
My instructors regularly provide opportunities for students to ask questions.	0.682						
My instructors provide me with timely feedback about my progress.	0.657						
The courses that I have taken have been well-structured to achieve the stated learning outcomes.	0.651						
In my experience, the course curricula are up to date.	0.635						
In my experience, course objectives are clearly stated in the syllabus.	0.597						
In my experience, the assessment and the grading of course work by faculty is done fairly.	0.571						
In my experience, faculty members are trustworthy.		0.739					
Faculty members display sincere interest in working with me to solve any problems that arise.		0.731					
When I, or a fellow student, have had problems, faculty members have provided helpful and reliable advice.		0.715					
The quality of University faculty members is high.		0.650					
I have found faculty members to be friendly and courteous.		0.551					

n my experience, support staff/administrators are well trained and knowledgeable on rules and procedures.			0.741				
I have found support staff/administrators to be friendly and courteous.			0.698				
The quality of University of Saskatchewan support staff/administrators is high.			0.688				
In my experience, U of S support staff/administrators are trustworthy.			0.650				
My requests (or inquiries) are responded to in an appropriate and timely fashion by support staff/administrators.			0.581				
The health care services provided by this University are excellent.				0.677			
This University's recreational facilities available to students are excellent.				0.658			
This University provides a wide range of programs with specialties.				0.556			
The security and safety measures that are in place at this university provide me with confidence that I'll be okay.				0.528			
I have experienced fairness and impartiality at this University.					0.623		
I feel there is freedom to express my opinions on this campus.					0.583		
I am sure that my personal and academic information is kept confidential.					0.557		
This University facilitates and promotes student organizations.					0.553		
The campus libraries, computer rooms, self-study areas meet my needs as a student.						0.848	
The learning spaces on campus meet international standards (for example: rooms are warm in winter and air conditioned, as needed).						0.808	
Websites, servers, campus alerts, digital forums, and email communications (PAWS and Blackboard systems) provide timely information.						0.729	
The tuition and fees assessed by this University for my course and program are reasonable.							0.809
There are sufficient opportunities for international student scholarships at this University.							0.791

Table F.14. Summary of New Service Culture Dimensions

Factor	Code	No.	Contents	Mean	St. Error
First factor ACADEMIC (M=3.97)	Instructors_4	1	My instructors make the course learning as interesting as possible.	3.92	0.062
	Curricula_2	2	The learning materials provided by the instructors are excellent.	3.79	0.065
	Instructors_3	3	My instructors communicate the course subject material effectively.	4.08	0.056
	Instructors_1	4	My instructors have thorough knowledge of the course/subject content.	4.17	0.056
	Instructors_2	5	My instructors regularly provide opportunities for students to ask questions.	4.22	0.052
	Instructors_5	6	My instructors provide me with timely feedback about my progress.	3.87	0.062
	Courses_3	7	The courses that I have taken have been well-structured to achieve the stated learning outcomes.	3.92	0.064
	Curricula_1	8	In my experience, the course curricula are up to date.	4.08	0.059
	Courses_4	9	In my experience, course objectives are clearly stated in the syllabus.	4.10	0.060
	Curricula_3	10	In my experience, the assessment and the grading of course work by faculty is done fairly.	3.86	0.060
Second factor FACULTY MEMBER (M=4.09)	Service Ability_6	11	In my experience, faculty members are trustworthy.	4.04	0.063
	Service Ability_2	12	Faculty members display sincere interest in working with me to solve any problems that arise.	4.13	0.056
	Service Ability_4	13	When I, or a fellow student, have had problems, faculty members have provided helpful and reliable advice.	4.03	0.064
	Rapport_2	14	The quality of University faculty members is high.	4.03	0.061
	Rapport_4	15	I have found faculty members to be friendly and courteous.	4.19	0.051
Third factor SUPPORT STAFF/ ADMINISTRATOR (M=4.08)	Rapport_5	16	In my experience, support staff/administrators are well trained and knowledgeable on rules and procedures.	4.04	0.061
	Rapport_3	17	I have found support staff/administrators to be friendly and courteous.	4.25	0.048
	Rapport_1	18	The quality of University of Saskatchewan support staff/administrators is high.	4.00	0.062
	Service Ability_5	19	In my experience, U of S support staff/administrators are trustworthy.	4.11	0.056
	Responsiveness_4	20	My requests (or inquiries) are responded to in an appropriate and timely fashion by support staff/administrators.	3.98	0.061
Fourth factor SAFETY (M=3.96)	Safety_3	21	The health care services provided by this University are excellent.	3.72	0.066
	Safety_4	22	This University's recreational facilities available to students are excellent.	3.94	0.067

	Courses_2	23	This University provides a wide range of programs with specialties.	4.12	0.059
	Safety_A1	24	The security and safety measures that are in place at this university provide me with confidence that I'll be okay.	4.08	0.059
Fifth factor STUDENT FOCUS (M=3.83)	Student Focus_3	25	I have experienced fairness and impartiality at this University.	3.74	1.02
	Student Focus_4	26	I feel there is freedom to express my opinions on this campus.	3.92	0.067
	Safety_2	27	I am sure that my personal and academic information is kept confidential.	4.09	0.054
	Student Focus_5	28	This University facilitates and promotes student organizations.	4.00	0.056
Sixth factor LEARNING AREA (M=4.25)	Infrastructure_3	29	The campus libraries, computer rooms, self-study areas meet my needs as a student.	4.25	0.059
	Infrastructure_2	30	The learning spaces on campus meet international standards (for example: rooms are warm in winter and air conditioned, as needed)	4.22	0.059
	Infrastructure_4	31	Websites, servers, campus alerts, digital forums, and email communications (PAWS and Blackboard systems) provide timely information	4.26	0.058
Seventh factor FINANCE (M=3.14)	Courses_5	32	The tuition and fees assessed by this University for my course and program are reasonable.	3.14	0.090
	Courses_6	33	There are sufficient opportunities for international student scholarships at this University.	3.15	0.092

Table F.15. Total Variance Explained for New Independent Variables with “1 year or less” variable

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.783a	.613	.603	.57387	1.802
a. Predictors: (Constant), finance, 1 year or less, academic, safety2, support staff					
b. Dependent Variable: satisfaction					
Table model summary of the new model					

Table F.16. ANOVA Summary of the new model with “1 year or less” variable

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	101.842	5	20.368	61.848	.000b
	Residual	64.220	195	.329		
	Total	166.062	200			
a. Dependent Variable: satisfaction_						
b. Predictors: (Constant), finance, 1 year or less, academic, safety, support staff						
ANOVA Summary of the new model						

Appendix G

Ethics Course Certificate of Completion



Appendix H

Certificate of Ethics Approval



Behavioural Research Ethics Board (Beh-REB) 30-Apr-2019

Certificate of Approval

Application ID: 1013

Principal Investigator: Keith Walker

Department: Department of Educational
Administration

Locations Where Research

Activities are Conducted: The campus at the University of Saskatchewan, Canada

Student(s): Thanh Nguyen

Funder(s):

Sponsor:

Title: Measuring the Quality of Service Culture for International Students at the University of
Saskatchewan

Approved On: 29/04/2019

Expiry Date: 28/04/2020

Approval Of: Behavioural Research Ethics Application

Core Certificate

Consent Form

Poster and Email

Questionnaire

Acknowledgment Of:

Review Type: Delegated Review

CERTIFICATION

The University of Saskatchewan Behavioural Research Ethics Board (Beh-REB) is constituted and operates in accordance with the current version of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2 2014). The University of Saskatchewan Behavioural Research Ethics Board has reviewed the above-named project. The proposal was found to be acceptable on ethical grounds. The principal investigator has the responsibility for any other administrative or regulatory approvals that may pertain to this project, and for ensuring that the authorized project is carried out according to the conditions outlined in the original protocol submitted for ethics review. This Certificate of Approval is valid for the above time period provided there is no change in experimental protocol or consent process or documents.

Any significant changes to your proposed method, or your consent and recruitment procedures should be reported to the Chair for Research Ethics Board consideration in advance of its implementation.

ONGOING REVIEW REQUIREMENTS

In order to receive annual renewal, a status report must be submitted to the REB Chair for Board consideration within one month prior to the current expiry date each year the project remains open, and upon project completion. Please refer to the following website for further instructions: <https://vpresearch.usask.ca/researchers/forms.php>.

*Digitally Approved by Patricia Simonson, Vice Chair
Behavioural Research Ethics Board
University of Saskatchewan*

Appendix I

The descriptive statistics for Demographics and Mean Scores

Figure I.1: The descriptive statistics for Age and Gender

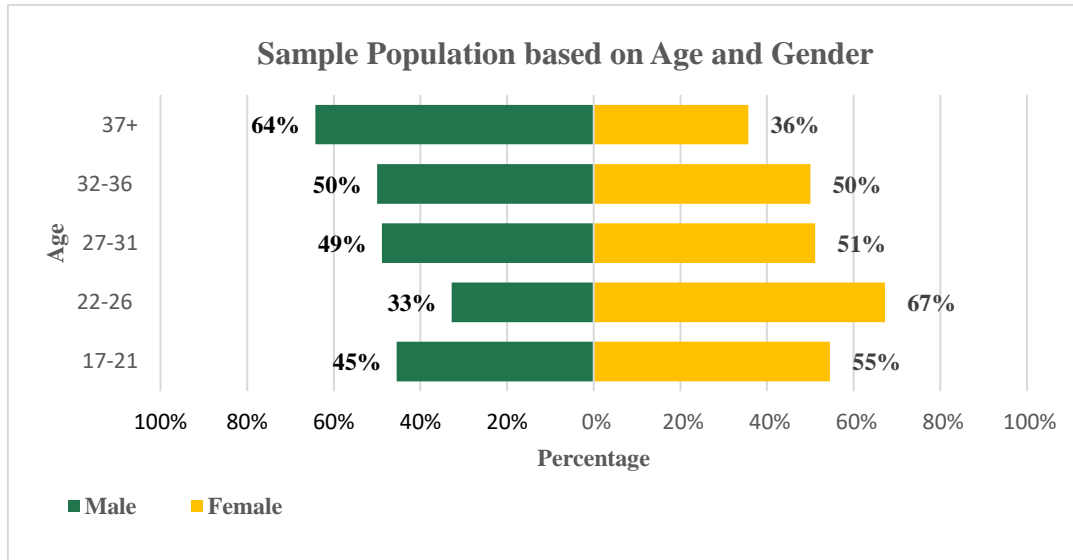


Figure I.2: The descriptive statistics for Colleges and Schools

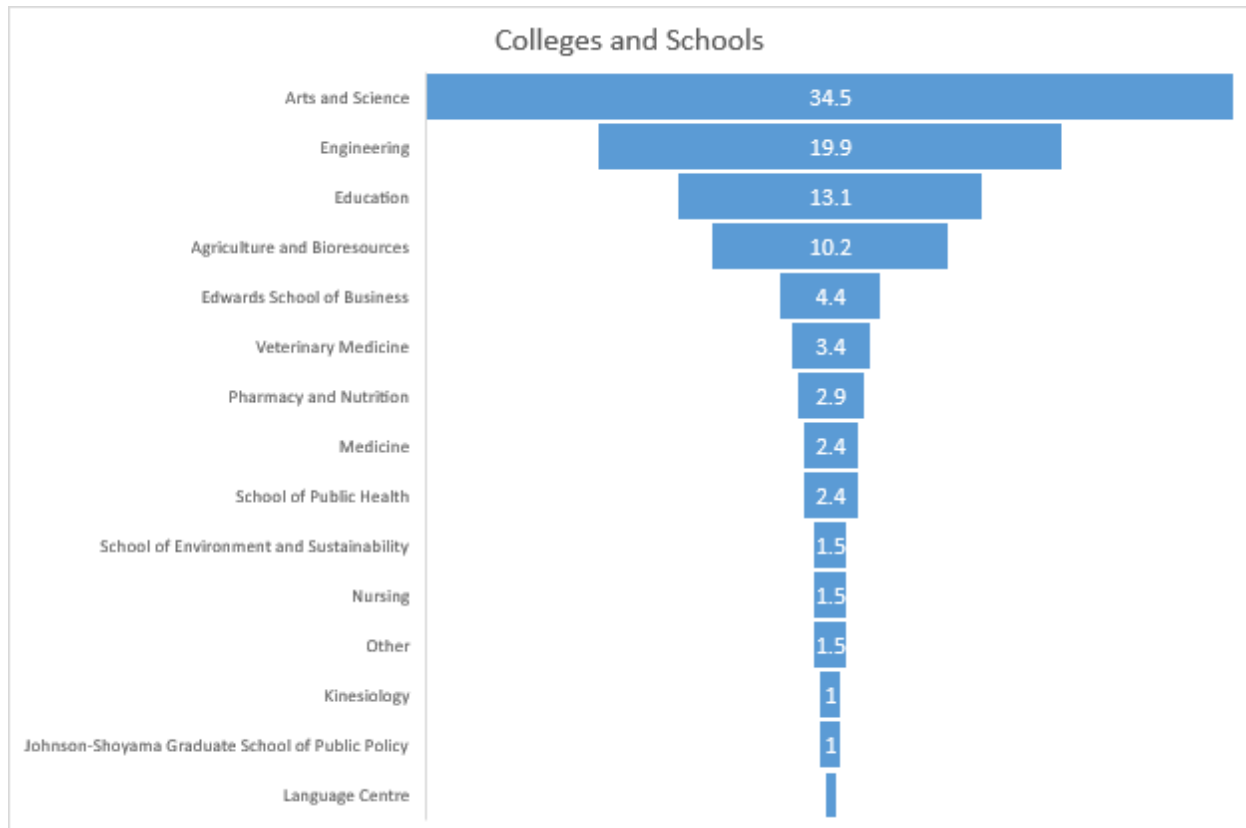


Figure I.3: The descriptive statistics for Countries and Areas

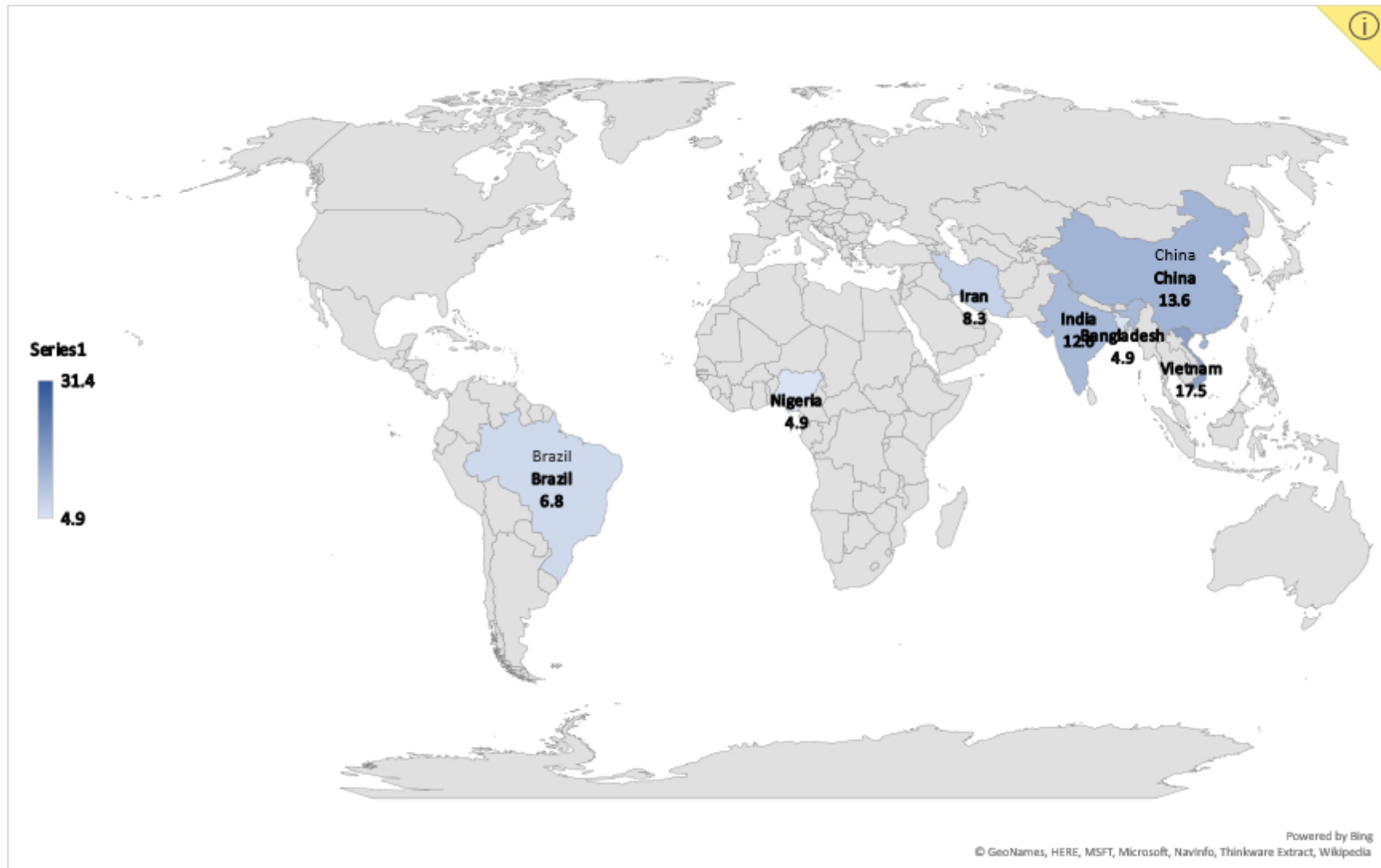


Figure I.4: The descriptive statistics for Years of Study

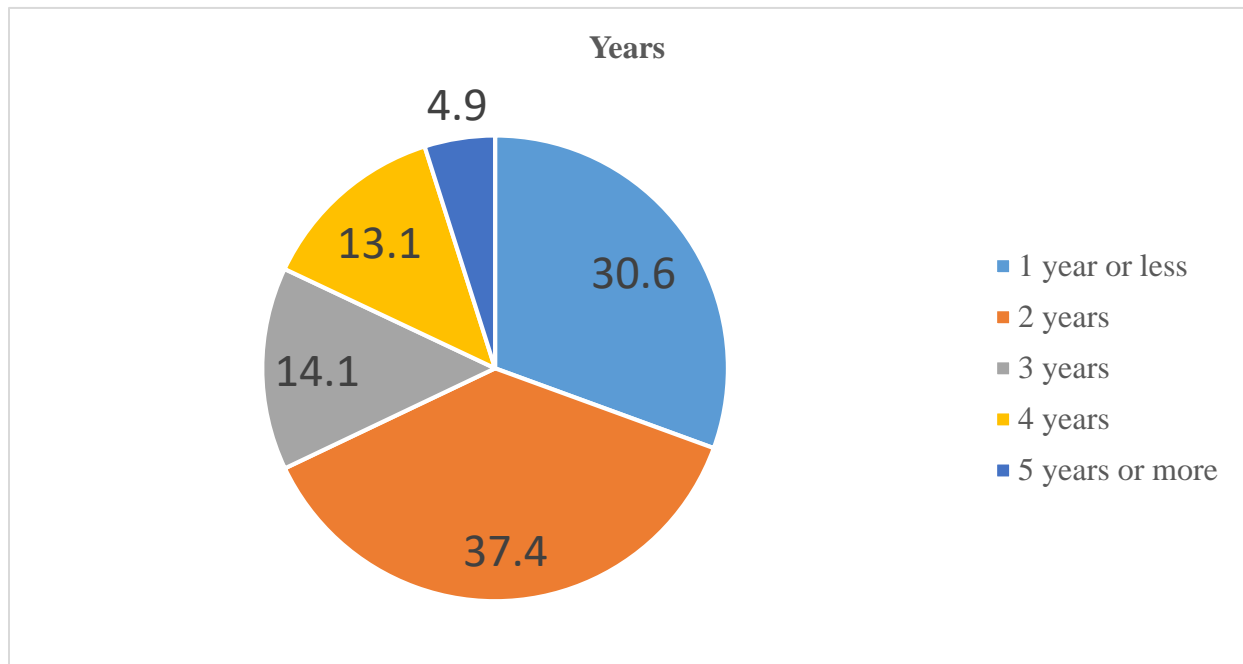


Figure I.5: The descriptive statistics for Enrollment Status

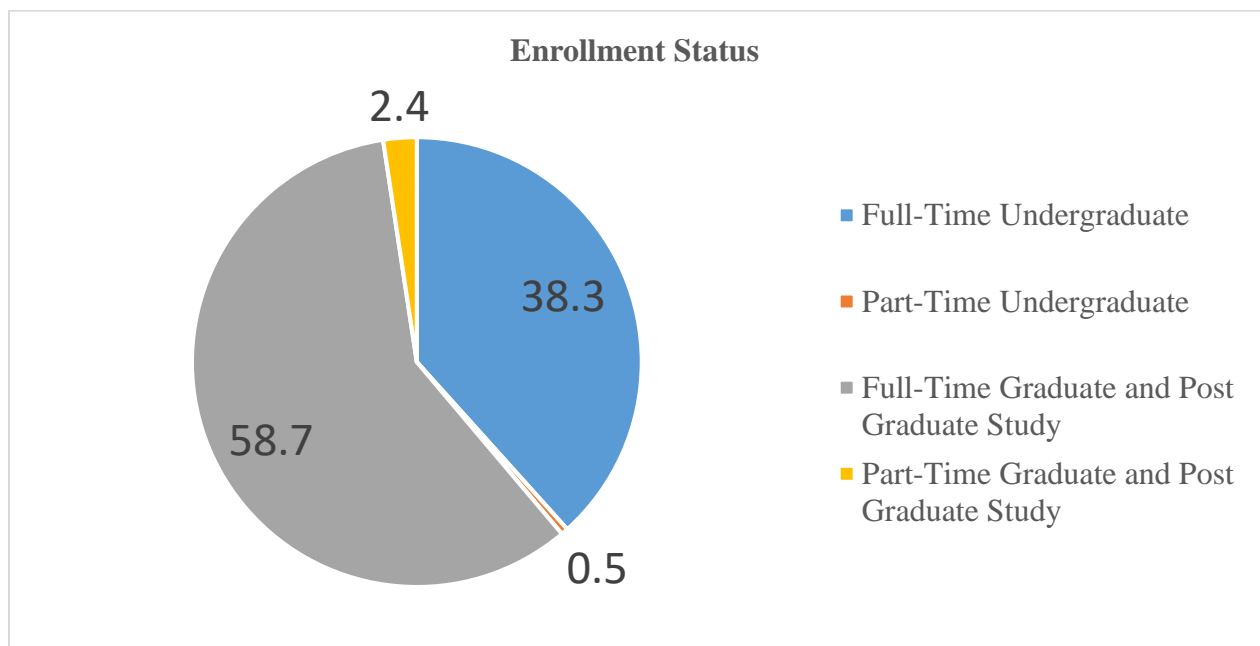


Figure I.6: The descriptive statistics for Infrastructure

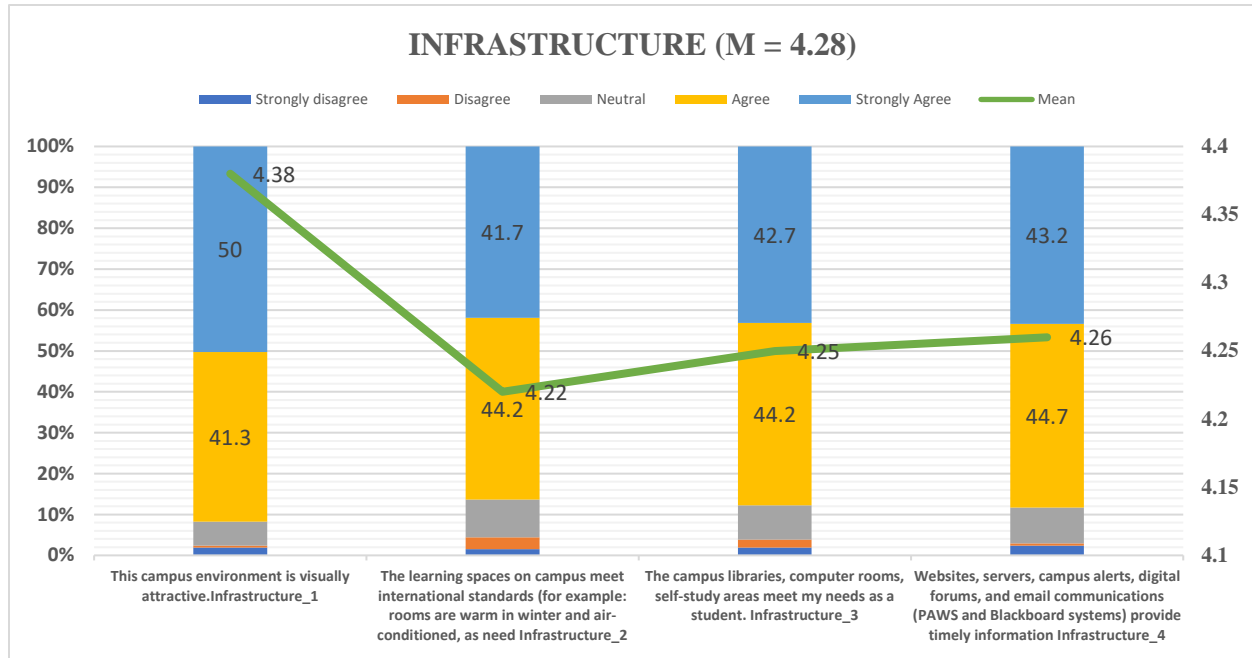


Figure I.7: The descriptive statistics for Service Ability

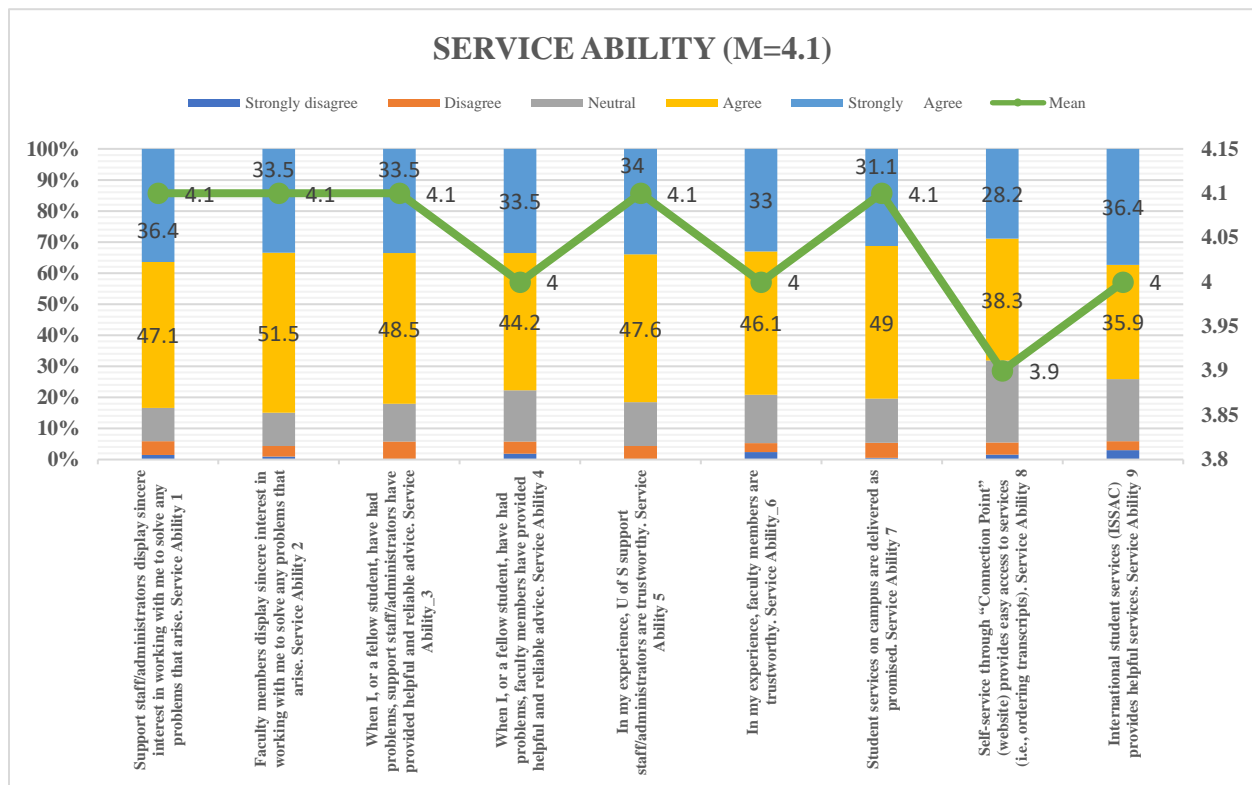


Figure I.8: The descriptive statistics for Responsiveness

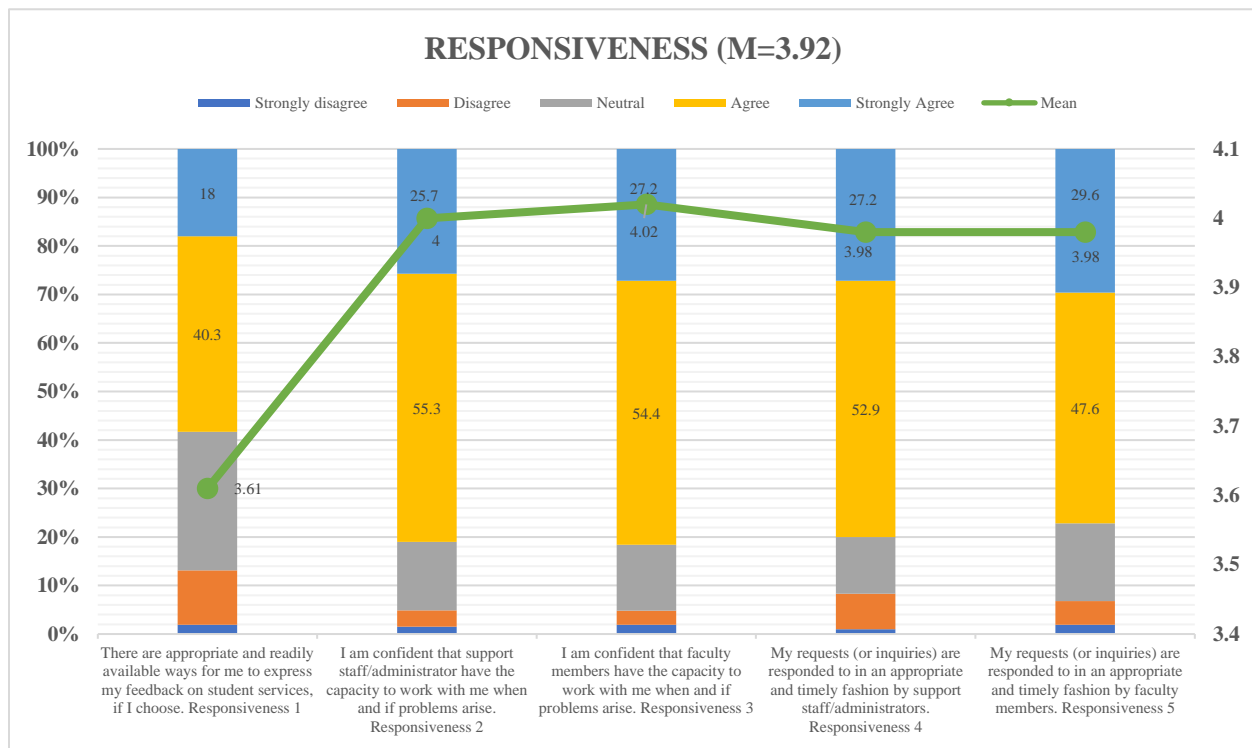


Figure I.9: The descriptive statistics for Rapport

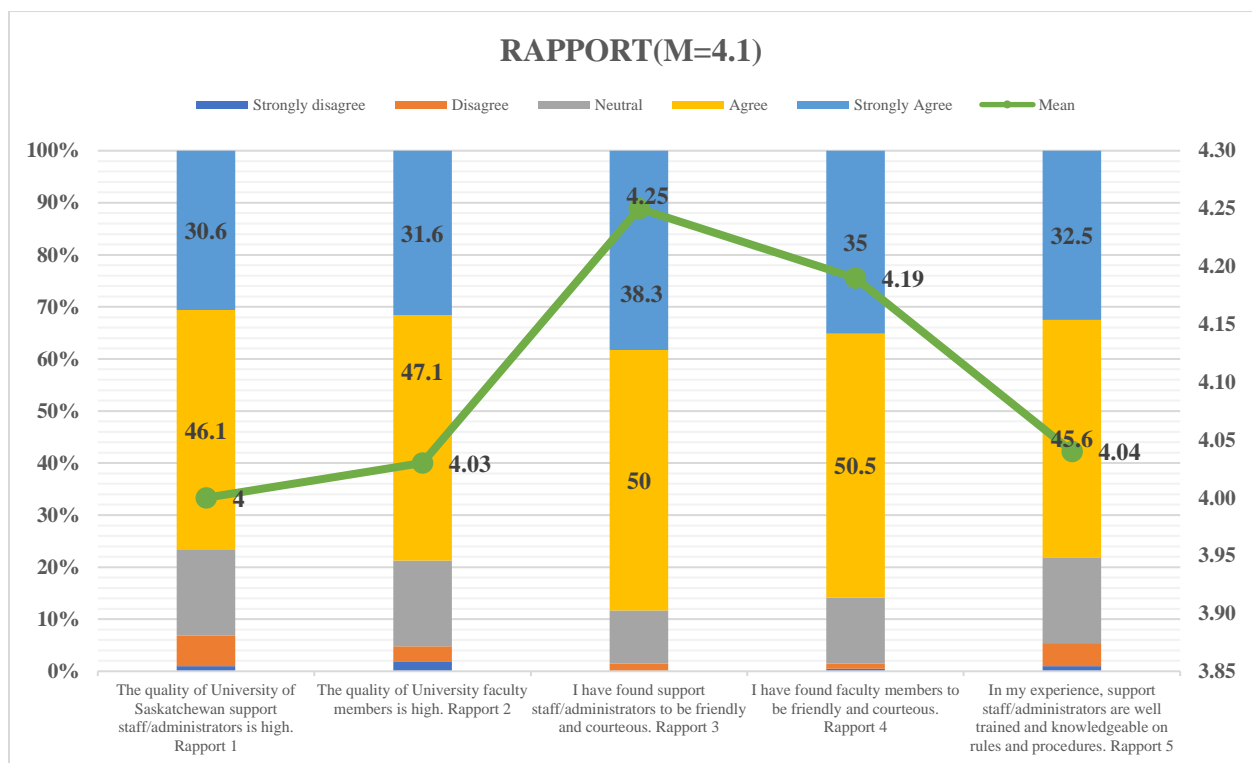


Figure I.10: The descriptive statistics for Safety-Wellbeing

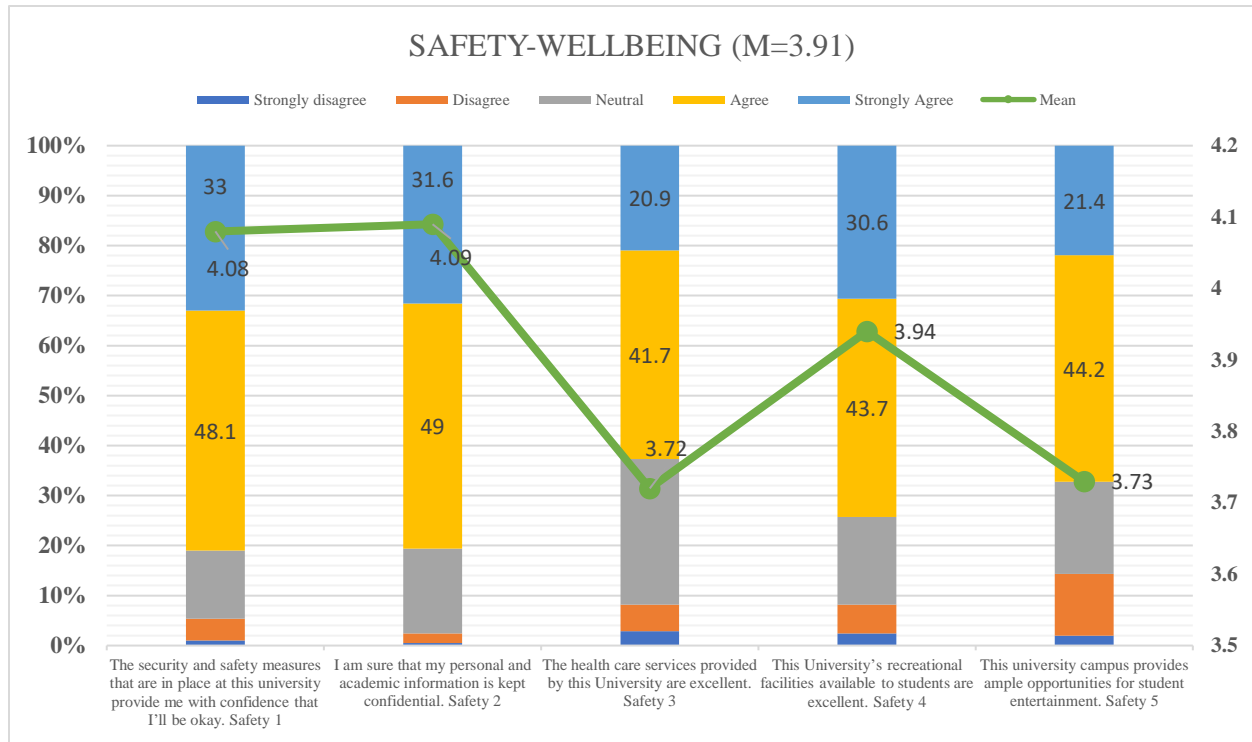


Figure I.11: The descriptive statistics for Student Focus

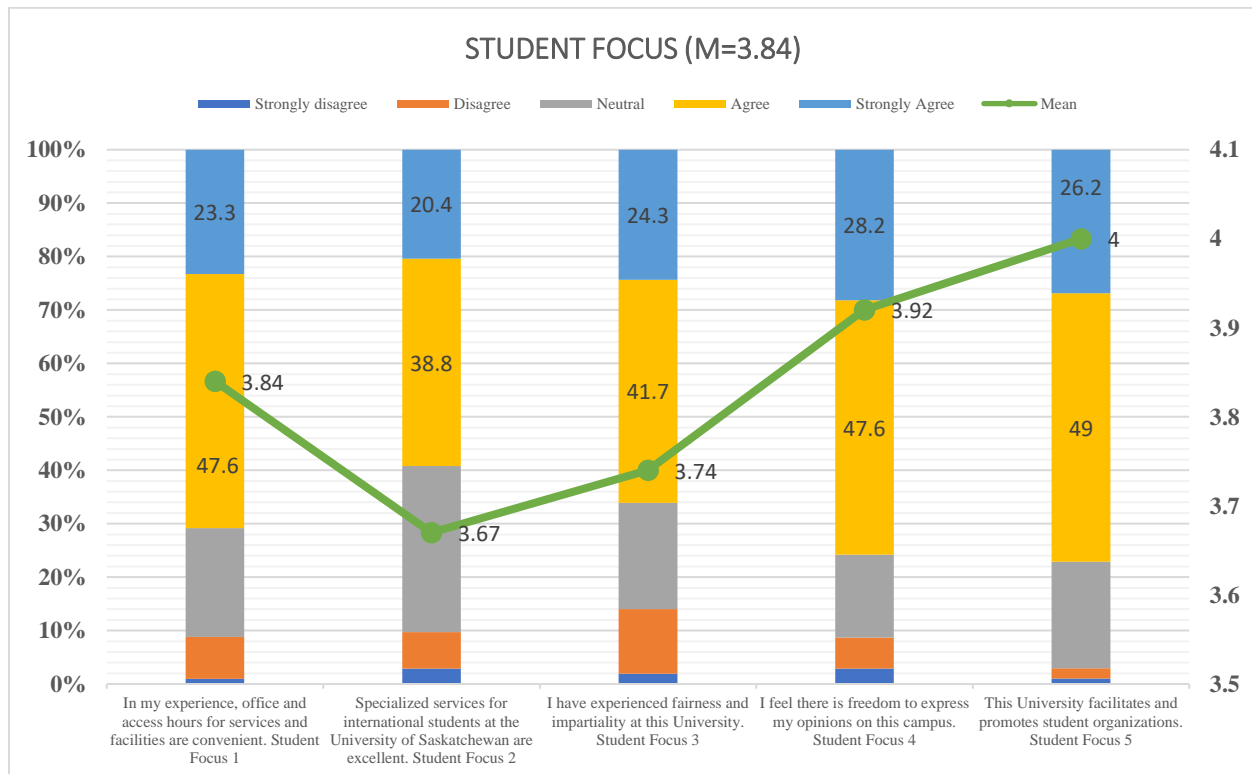


Figure I.12: The descriptive statistics for Instructor

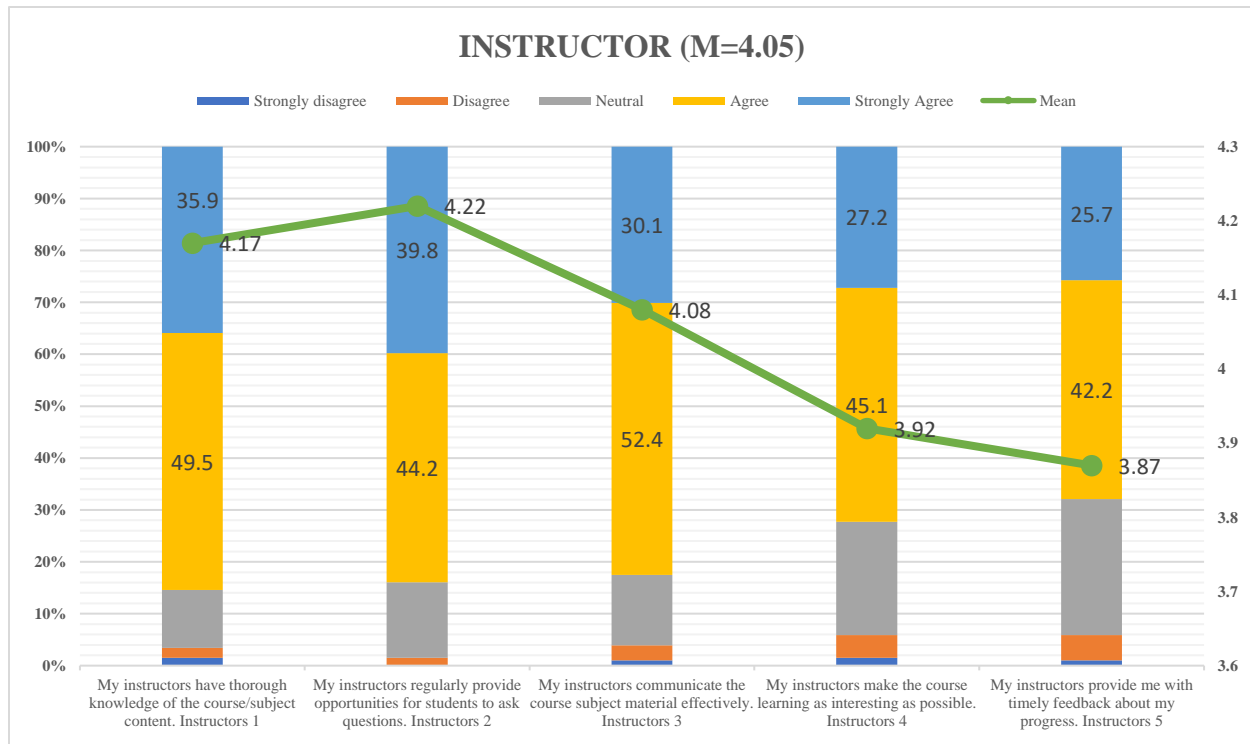


Figure I.13: The descriptive statistics for Curricula

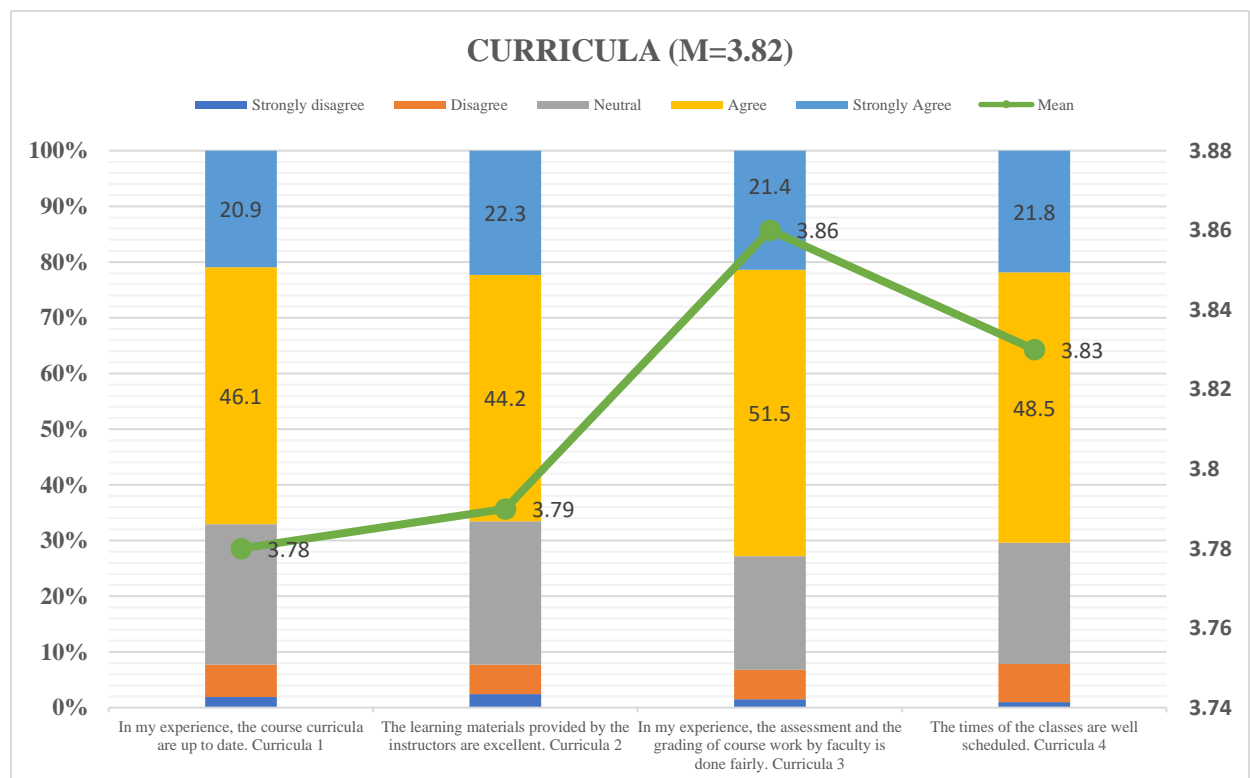


Figure I.14: The descriptive statistics for Course & Program

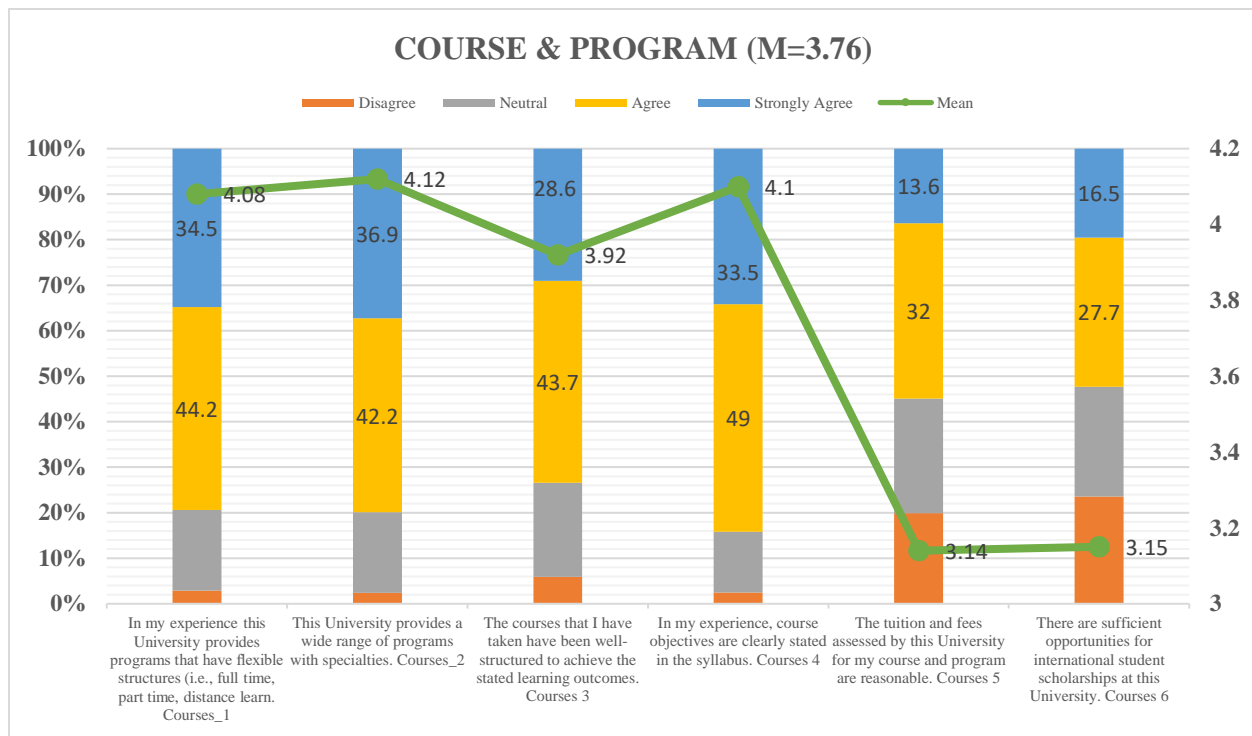


Figure I.15: The descriptive statistics for Overall Satisfaction

