

**PERCEPTION OF INTERNET SERVICE USERS ON SERVICE
QUALITY TOWARDS INTERNET SERVICE
PROVIDERS IN LALITPUR**

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RECOMMENDATION LETTER

This is to certify that research report entitled “Perception of Internet Service Users Towards Service Quality of Internet Service Providers in Lalitpur” submitted by Shova Ghimire is an authentic piece of research work carried out by her under my supervision. The presentation is impressive and the thesis is in a form suitable for publications. This work evinces the capacity of the candidate for critical examination and independent judgement. She has put in at least 6 months after registering the proposal. The thesis is forwarded for examination.

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APPROVAL LETTER

We, the undersigned, certify that we have carefully read the research project report submitted by Shova Ghimire and conducted the viva-voce examination of the candidate. We are fully satisfied with the quality and academic standard of the research project report. The candidate has defended her research work impressively. We, therefore, recommend that the research report entitled “Perception of Internet Service Users Towards Service Quality of Internet Service Providers in Lalitpur” be accepted as partial fulfillment of the requirements for the award of the degree of Master of Business Management (MBM) of Tribhuvan University.

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STATEMENT OF AUTHORSHIP AND ORIGINALITY

I hereby declare that I am the sole author of this master thesis and that I have not used any sources other than those mentioned in the bibliography section and enlisted as references. Sources are properly credited according to accepted standards for professional publications.

I further declare that I have not submitted this thesis in any form to any other institution to obtain a degree. This report was solely prepared by me for the purpose of partial fulfillment of requirements for the MBM degree of Faculty of Management, Tribhuvan University.

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ABBREVIATIONS

ANCOVA	Analysis of Covariance
ANOVA	Analysis of Variance
BSQ	Banking services quality
DEMAT Account	Dematerialized Account
ISP	Internet Service Provider
ISPAN	Internet Service Providers' Association of Nepal
MIS	Management Information System
NRP	Nepalese Rupee
SD ..	Standard deviation
SERVQUAL	Service Quality
SQM	Service Quality Model
PVT	Private
LTD	Limited
MBM	Master Of Business Management
TU	Tribhuvan University

EXECUTIVE SUMMARY

The study was conducted to find out the service performance standard of Internet Service Providers (ISP) in Lalitpur and its impact on customer satisfaction. The objective of this research was to find out user perception of Internet service quality which influences the satisfaction level of customers. The service standard is also an essential part of after-sales service determining the performance level of ISP. As a result, the satisfaction level of customers can be linked with the success of service providers, which are usually business-oriented with the main aim of expanding the market share and maximizing the profit.

The data collection for this research was done with the help of structured survey questionnaires conducted with 120 respondents by using the convenience sampling. The research questionnaire gathered demographic attributes like age, academic background, income and occupation of the respondents, as well as their perception of different service quality factors and analyzed it to derive their perception and satisfaction level. The collected data was coded and recorded in SPSS software to generate results. The statistical method used for this research implemented various methods of analysis including percentage, accumulation, cross tabulation, Chi-square, ANOVA and correlation for testing the validity and reliability of the formulated hypotheses.

The result showed no significant relationship between demographic factors like age, academic background, income level, occupation and gender with service quality dimensions. Similarly, there was no significant relationship between gender, age, academic background and occupation with the satisfaction level of customers. However, there was significant relationship between service quality dimensions like reliability, empathy, assurance, responsiveness and tangibility. Similarly, the before mentioned service quality dimensions had significant impact on users' perception of service performance and their satisfaction level. So, the key finding of this research study for the ISP companies was to keep the service quality up to the standard which would be very beneficial in getting positive response from customers, thus helping in expanding the service and meeting business goals as well.

The age group of 20-30 years representing almost 80 % of the respondents were well satisfied with their ISP. The service quality dimensions like reliability, empathy, assurance, responsiveness and tangibility were big factors for measuring the perception of customers and thus, their satisfaction level to the service quality of ISP. The better service quality dimensions lead to the better customer satisfaction. The significant relationship between service quality dimensions and customer satisfaction is another aspect of better-quality service for ISP.

Almost 40% of total respondents were not satisfied on issues like disturbance in connection, Internet speed and poor maintenance. There was the need for improvement from the side of ISP companies to satisfy those 40%, so that they would be able to retain those customers for longer period. Any improvement in the service quality dimensions for unsatisfied customers would be very beneficial, as they may likely recommend their ISP to those in need of new service provider, especially to their friends and families. ISP identifying and addressing those issues relating to poor Internet services can ultimately grab those unsatisfied customers in near future from their existing ISP, thus expanding their business services.

Furthermore, the research showed that there is significant relationship among service quality dimensions like reliability, empathy, assurance, responsiveness and tangibility. It showed that ISP should focus more on retaining the customers for longer period of time instead of getting larger number of customers and neglecting the quality aspect of their services.

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

According to Saadat and Soltanifar (2014), Internet is one of the most significant innovations of the 20th century. Since the development of Internet as a mean of wireless communication and electronic data transfer with the first applicable prototype in the 1960s, its progress has been remarkable (Ryan, 2013). Today, Internet has become an inevitable part of everyday life of common people as well as organizational sectors of modernized world. The purpose of the Internet, however, varies diversely and its popularity is growing at an immense rate (Ngai & Wat). In everyday life of common people, Internet is a base for social networking and information seeking (Tkacz & Kapczynski, 2009). On the other side, organizations employ it for communication, business development, data exchange and many other purposes (Tkacz & Kapczynski, 2009). For this reason, an efficient and smooth operation of modernized world amidst overwhelming complexities without Internet seems almost unimaginable.

An Internet service provider (ISP) is an institution managing all the activities regarding operation and distribution of Internet services to the public. A research of Greenstein (2001) revealed the importance and mediating role of ISP in the development of modern society. ISPs not only sell Internet services to consumers, but also maintain and constantly develop necessary applications for smooth operation, solve problems as they arise and tailor general solutions to idiosyncratic circumstances (Chiou, 2003). Furthermore, they customize Internet services to the unique needs of consumers and organizations. Besides providing subscribers with a data connection allowing access to the Internet through physical transport infrastructure, ISP may also provide related services beyond Internet access, such as web hosting, web page design and consulting services related to networking software and hardware (Saadat & Soltanifar, 2014).

In general, ISPs are commercial institutions running to generate income by charging their subscribers – whether households, businesses or governments – based on company policy or mutual contract (Perset, 2010). Many ISPs also offer bundle packages including telephone and television services. Typically, ISPs are large organizations with their own geographically dispersed networks, local points of presence and numerous connections to other such networks (Tier 1 providers usually have large telecommunications companies) (Perset, 2010). On a broader sense, Internet Cafes or Kiosks providing Internet services can also be considered as small-scale ISP, as they serve as platform for accessing Internet services (Perset, 2010).

ISPs constantly seek and develop new technologies to optimize their services for customer acquisition as well as providing quality services to their existing customers. Czepiel (1990) defines service quality as customer perception of a service standard with reference to the expectations. Thus, ISPs aim in increasing customer satisfaction by closing gap between customer expectations and their service portfolios. This, however, does not necessarily mean that the customers are always fully satisfied with the services provided by their ISPs. An unsatisfied customer may not only withdraw its subscription from its service provider, but also spread its dissatisfactions to a wide circle of friends and acquaintances, mass media as well as consumer associations (Simon Nimako, 2014). As a result, ISP not just loses few existing customers, rather disqualifies itself as service provider from potential customers. Furthermore, bad reputation, loss of market share and loss of profit are some negative consequences of poor service quality which may ultimately lead to dissolution of the Internet service provider (Mmutle & Shonhe, 2017).

On the other hand, a satisfied customer spreads positive messages regarding good services and his/her satisfaction from Internet service provider. A study of Storbacka et al. (1994) revealed that service quality and customer satisfaction have positive impacts on customer loyalty as well as profitability.

Current world market is consumer centric in comparison to the producer centric market of 20th century (Sheth, Sisodia & Sharma, 2000). The success of an organization in a consumer centric market depends largely on its capability in meeting

customer needs and interests. Thus, ISPs need to focus their activities in providing quality services to its users to be a successful organization by getting a depth insight of customer perception of their service quality. One effective method of achieving this goal is by doing qualitative and quantitative analysis of different factors influencing the customer perception of quality service (Liu, Zhou & Song, 2009).

1.2 Problem Statement

The literature on user perception of the service quality has contributed significant progress since the seminal works of Parasuraman et al. (1985, 1988). As a pioneer, Parasuraman et al. introduced and highlighted the basic idea of service quality (SERVQUAL) as the difference between a customer's expectations for a service to be used and his or her perceptions of the service received. Similarly, Czepiel (1990) described the confirmation/disconfirmation paradigm as a process by which consumers develop feelings of satisfaction and dissatisfaction. It involves the process of comparing the expectation based on brand attribute beliefs, attitudes and intentions with the actual experience and evaluating the experience in three main categories of confirmation, positive disconfirmation and negative disconfirmation. To this time, many researchers and scholars have tested the validity of the modern theory of user perception from various perspectives. Numerous studies have also investigated the effect of user perception on the long-term performance of firms in various sectors of the economy.

In customer centric market, businesses compete and try to lure customers to purchase their goods and services. They primarily focus on building trust and gaining customer loyalty rather than succeeding on a one-time sale. As a result, customer's satisfaction is an important key factor and differentiating strategy for maintaining long-term customer relationship. According to Anderson and Sullivan (1993), level of customer satisfaction will decrease the perceived need to switch service provider, thereby increasing customer repurchase and ultimately enhancing profitability of the organization. Similarly, Rust and Zahorik (1993) stated that greater satisfaction leads to repurchase. It is well established that satisfied customers are key to long term

success. According to Metawa and Almassawi (1998), visionary market leaders are found to be highly customer oriented.

Nagarkoti (2009) conceptualized the factors influencing consumer behavior of Internet users to find out whether the ISPs is inevitable to make the daily life or not. Indeed, ISPs have made people smarter by organizing their lives with a single device and providing access to the worldwide information at the fingertips. It does not only organize daily life by putting calendars, to do list and shopping list at one place but also helps people get connected all over the world through communication via WhatsApp, Telegram, emails, social networking, messaging and many more options. Also, Internet is also inevitable for content searching for educational purpose, jobs, banking and global business. This is also the reason that most of globalized firms and organizations cannot effectively run without Internet in current situation. Similarly, ISPs also need to provide a basic performance standard, so that customers can rely on the services for which they pay a significant sum of service charge. Analyzing level of customer satisfaction is very essential because customers are becoming more demanding regarding service quality of Internet sector of Nepal. It is thus important to understand the impact of service quality on customer satisfaction. Nowadays, the only demand of the customers is to get a good value for their money. Due to increasing market competitiveness no one can deny the significance of service quality. Therefore, it is challenging for the service providers to meet the customer expectation.

The essence of success of ISPs is understanding the importance of quality service provided to its customers. Thus, ISPs need to optimize own products and services in accordance with customer need, and constantly get feedbacks whether the expectations are fulfilled. This can be done by understanding the perception of the service quality of Internet provided by its ISP. Consumer behavior plays a vital role for the success of any product in a market. In reference to the scenario of Internet service, an increasing demand for the Internet accessibility will lead to the expansion and growth of the Internet business. ISPs need to understand the customer perception of its product and service. This helps to understand customer demand and market trend, and thus implement necessary steps to fulfill the gap of the market and eventually modify its service portfolio to target customers.

Major ISPs in Nepal run their firms and provide their services under the regulations of the Internet Service Providers' Association of Nepal (ISPAN). ISPAN was established in 1998 with a mission to develop and promote Internet and make Internet affordable to local communities and penetrate in the rural areas. For this purpose, ISPAN initiates continuous dialogues with the Ministry of Information and Communication, Nepal Telecommunication Authority, Nepal Telecommunications as well as various government departments, other industry associations and media for getting quality infrastructure and resources to enable high quality services to be delivered by the Internet service licensees. As of April 2020, there are 14 major Internet Service Providers in Nepal coordinating their activities and providing their services under guidance and regulations of ISPAN. Enlisted below are the names of these major ISPs in Nepal.

- | | | | |
|---|--|----|--|
| 1 | WorldLink Communications Pvt. Ltd. | 8 | Subisu Cable Net Pvt. Ltd. |
| 2 | Vianet Communications Pvt. Ltd. | 9 | Eastlink Technology Pvt. Ltd. |
| 3 | Classic Tech Pvt. Ltd. | 10 | Net Max Technologies Pvt. Ltd. |
| 4 | Infocom Pvt. Ltd. | 11 | Himalayan Online Services Pvt. Ltd. |
| 5 | Websurfer Nepal Pvt. Ltd. | 12 | Mercantile Communications Pvt. Ltd. |
| 6 | Arrownet Pvt. Ltd. | 13 | Techminds Network Pvt. Ltd. |
| 7 | Broadlink Networks and
Communications Pvt. Ltd. | 14 | Communication and Communicate
Nepal Pvt. Ltd. |

Not only has there been a remarkable increase in the number of Internet Service Providers in Nepal over last few decades but has also rose the number of Internet users significantly. Figure 1.1 shows the growth of Internet accessibility in Nepal from 2000 to 2017. From 2000 to 2009 a sluggish increase in number of Internet users in Nepal was observed. Consequently, the Internet access remained below 2% of total population in 2009 even after almost a decade from 0.2% in 2000. However, over the years, the number rose steadily, and Internet accessibility marked 34% of total population in 2017.

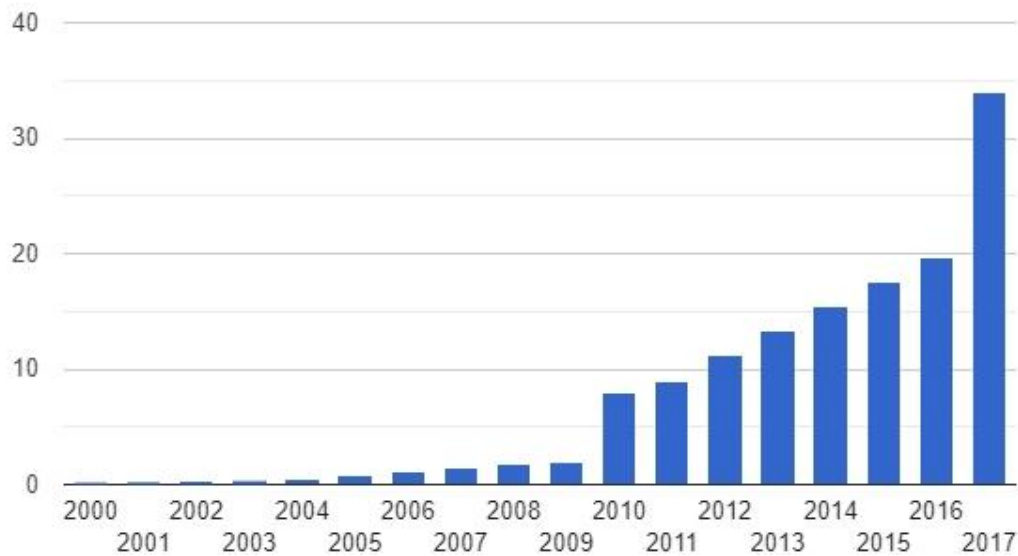


Figure 1.1 Percentage of Internet users in Nepal from 2000 to 2017, Source: The World Bank

According to the MIS report of Nepal Telecommunications Authority of October 2019, around 2.25 million new Internet users were added to existing 16.67 million subscribers of previous year. This represents 63% of total population of Nepal in 2019. Furthermore, the penetration rate was 54% with almost 250 new users added every hour. Consequently, in addition to easier access of Internet in urban areas and big cities like Kathmandu, Pokhara and Biratnagar, many rural areas of farthest corners, for instance, Mustang or Namche Bazaar, were no longer deprived of it. With an enormous increase in mobile communication devices like Smartphone, Laptop or Tablet among common people as well as increasing popularity of E-commerce, E-governance, Distance Learning and digitalization of organizations, the demand for accessibility to Internet services is growing rapidly.

Beside expanding the accessibility of the Internet, ISPs should give equal attention in enhancing the performance and quality of their service portfolio. A service provider with high service quality meets customer needs while remaining economically competitive. Improved service quality also increases economic competitiveness. However, in context of Nepal, the service providers are not equally focusing on getting the customers perspective of own service portfolio and eliminating the challenges which the customers are facing frequently. This results to a failure in

maintaining a good relationship between service provider and the customers which is essential in not only gaining new customers but also retaining satisfied and loyal customers for longer time.

Several studies have been conducted by many researchers over past years and decades regarding service quality of different sectors providing products and services to public. In context of Nepal, however, few studies have been done by some scholars about service standard of Internet, and especially inadequately from customers' view of perspective. Therefore, this study attempts to shed some light on the consumer satisfaction among Internet users in Nepalese context. Thus, this study has tried to address the following research question:

- Is there a relationship between assurance and service quality?
- Is there a relationship between empathy and service quality?
- Is there a relationship between reliability and service quality?
- Is there a relationship between responsiveness and service quality?
- Is there a relationship between tangibility and service quality?

1.3 Purpose of the Study

The primary objective of this study is to get an insight of the customers' perception of service quality of their Internet subscriptions in Nepal and find out the level of their satisfaction regarding the service performance. In line with the primary objective, specific objectives are as follows:

- To examine the customers' perception towards service quality of ISP
- To analyze the influence of service quality dimensions on overall service quality

1.4 Research Hypotheses

With reference to the literature review and five core dimensions of quality service as of SERVQUAL model of Parasuraman et al. (1985), five hypotheses have been derived for the research study to evaluate the perception of service quality among

Internet users in Lalitpur. Assurance, empathy, reliability, responsiveness and tangibility are independent variables, whereby perceived service quality is the dependent variable. Five hypotheses: H_1 to H_5 have been formulated for beforementioned five service quality dimensions and are described as follows:

H₀₁: There is no significant relationship between **assurance** and service quality.

H₀₂: There is no significant relationship between **empathy** and service quality.

H₀₃: There is no significant relationship between **reliability** and service quality.

H₀₄: There is no significant relationship between **responsiveness** and service quality.

H₀₅: There is no significant relationship between **tangibility** and service quality

1.5 Scope and Limitations of the Study

There are many aspects related to the research topic which should be analyzed to address the topic in a broader sense. However, due to several limitations, not all issues could be addressed. This research only focuses on the issues raised in the research questions. Following are the limitations of the study.

The survey questionnaire for this research study was conducted with 120 respondents for collecting the necessary data. As a result, a complete validity and reliability of the results for the entire service portfolio of any ISP cannot be ensured. Furthermore, service quality and thus perception of users may also vary due to several factors like geographical location, availability of necessary infrastructures and type of Internet subscription package.

The study has been conducted in a small region. As a result, universality of results and outcomes of the research cannot be extrapolated to an unresearched region or the entire country.

Several factors like limitation of budget, time limitation for data collection are some restrictions for doing an in-depth and intensive research on the topic.

The sampling consisted of random sampling and the survey has been done online and anonym. Thus, the information collected through the survey, which depends on the

reliability of customers feedback to the survey questionnaire, is also assumed to be correct.

1.6 Definition of Terms

Based on the findings of diverse research studies conducted by several researchers and scholars, multiple service quality dimensions were found crucial in determining the customers perception of worthiness of purchased service or product. These service quality dimensions try to target the quality level of service provider in a way that would satisfy the service receiver in long term. These quality dimensions are explained with the nature of service and may thus vary from the business sector of institution. For instance, the service provided by a hospital differs from that of recreational club, and consequently the dimensions influencing the perception of users regarding service quality. Nevertheless, assurance, empathy, reliability, responsiveness and tangibility were core dimensions influencing the perception of users in evaluation of service quality in almost every sector. These five dimensions were also mentioned by SERVQUAL model of Parasuraman et al. (1985 and 1988) as key dimensions determining perception of service quality.

Assurance involves the knowledge and courtesy of employees of service provider and their ability to convey trust and confidence to the users (Arthur, Sekyere, Kantanubah Marlle, and Banuenumah, 2016). The sub-dimensions of assurance include competence, courtesy, credibility and security. It also explains the customers behavior of comparing the product or service with own expectation level and determining the satisfaction level of service. They, thus, worry about the service if it would not match their expected level. As a result, employees must assure their customers by adding more confidence. The customers need to feel safe in their service, whereas the employees should have the ability to answer the queries of the customers promptly.

Empathy explains how employees can better understand the customers problem as their own and, thus, respond giving quick and reliable solution to the problem (Arthur, Sekyere, Kantanubah Marlle, and Banuenumah, 2016). For this, service provider, especially, service employees or customer care should give proper attention to

individual customer. Employees must feel the situation of the customers and try to solve their problem in caring way. Empathy involves the provision of caring, individualized attention to customers. In summary empathy includes access, communication, and understanding the customer.

Reliability is the ability to perform the promised service dependably and accurately (Arthur, Sekyere, Kantanubah Marlle, and Banuenumah, 2016). It explains about the delivery of services as promised one along with the performance of service with less error. The ability to handle the customer's service problems is also part of reliability.

Responsiveness involves the willingness of the service provider to help customers and retain them for long term. It refers to the reaction time of the service and willingness to help customers and to provide prompt service. This dimension emphasizes attentiveness and promptness in dealing with customer requests, questions, complaints and problems. It is communicated to customers by the length of time they have to wait for assistance, answers to questions, attentions to problems etc. It also captures the notion of flexibility and ability to customize the service to customer needs.

Similarly, tangibility includes the appearance of physical facilities, including the equipment, personnel, and communication materials. It describes that the service provider should have best available equipment to provide good service to the customers. The visual effect will help to attract the customers in best way. The visually appealing materials associated with the service should satisfy customers. The employees of the service provider should be well-dressed, neat and clean.

SERVQUAL model has mainly beforementioned five dimensions consisting of 22 pairs of Likert-type items. These items are summarized and illustrated in Table 1.1 as follows:

Table 1.1

Items corresponding to service quality dimensions

Service quality dimension	Items corresponding to service quality dimension
Assurance	Knowledge and courtesy of employees and their ability to inspire trust and Confidence
Empathy	Caring individualized attention, the firm provides to its customers
Reliability	Ability to perform the promised service dependably and accurately
Responsiveness	Willingness to help customers and provide prompt service
Tangibility	Physical facilities, equipment, and appearance of personnel

1.7 Structure of the Study

The study comprises of three main sections: preliminary section, body of the report and supplementary section. The preliminary section includes title page, certification declaration of authenticity, acknowledgement, table of contents, list of tables, list of figures, abbreviations used and executive summary.

The body of the report is further divided into five sections: introduction, literature review and conceptual framework, research methodology, data analysis and discussion.

The introduction section consists of background of the study, statement of problem, objectives of the study, structure of the study, hypotheses, significance of the study and limitations of the study. The literature review section includes the current knowledge including substantive findings, as well as theoretical and methodological contributions of previous researchers and scholars to related topic. It will take as a base for the study about consumers perception of products and services and their level of satisfaction and dissatisfaction towards their service providers. Theoretical framework will develop from the literature review of previous study.

Third chapter is about research methodology which describes the methodological approaches employed in the study. Mostly, in the case of the empirical studies, the

consistencies of the findings are solely based on empirical methodologies it has employed. Therefore, this chapter focuses on research design, population and sample, nature and sources of data, selection of samples, data analysis methods and tools.

The fourth chapter consists of presentation and analysis of data with different financial and econometric tools. It is also about results and findings that involves various tables, figures. This chapter also includes summary of findings.

Finally, the last chapter deals with discussion, conclusion and implication of the study. Discussion focuses on the comparison of present result with previous findings. Conclusion is drawn from the result and discussion by relating to major objective and research questions. Based on the statement of limitations of this research and earlier interpretations and discussions, future research should address at least the following three issues: future studies could follow different research designs, the research can easily be continued in future and would provide longitudinal accounts which are not available in current literature, comparison study on different groups.

The final section of the report includes references and appendices. References includes the use of a source of information to ascertain something. Appendix contains all information including tables, diagrams, and results necessary to understand the research problem.

CHAPTER 2

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

This chapter begins with the review of theoretical literature based on consumers perception of products and services. It presents the overview of the background information about service performance and the level of customer satisfaction or dissatisfaction. It further reviews past empirical studies on user perception and service provider performance in context of Nepal.

2.1 Review of International Empirical Studies

Any study will not be complete without taking a critical look at some past empirical studies in terms of the purpose of the studies, the methodology that was adopted and the findings of the studies. This is a necessary step in order to enable the researcher to see the gaps that might have been left or to get a glimpse of some recommendations for further studies that might have been reported in previous studies.

Numerous studies of Parsuraman et al. (1985) on user perception of service quality over the period of last several years have attracted the greatest attention and made the highest contribution in bringing new findings and useful results. Parasuraman et al. (1985) defines service quality as a comparison between customer expectations and perceptions of provided service and suggested mainly three themes on service quality. As conclusions of the research, they found the higher complexity bounded with the evaluation of intangible service quality in comparison to tangible product quality. The service quality perceptions resulted from a comparison of consumer expectations with actual service performance. Furthermore, the quality evaluations were not made solely on the outcomes of service, rather also involved evaluations of the processes of service delivery. The service quality dimensions were related with the satisfaction level of the customers and the service provider determining the actual performance of the firm in long term.

Zeithaml (2000) developed an e-SERVQUAL method for measuring E-service quality by considering eleven dimensions for online service quality. These dimensions are accessibility, easy for navigation, efficiency, flexibility, reliability, personalization,

security, responsiveness, assurance, site aesthetics, and price knowledge. It identified four dimensions, namely: efficiency, reliability, fulfillment and privacy to form the core e-SERVQUAL scale. The study also found that three dimensions responsiveness, compensation and contact were significant only when the online customers had unresolved problems or difficulties. The service quality dimensions were effectively used to find the performance level of a firm in long term, so that it would focus more on the customer satisfaction by improving its service quality dimensions.

Bahia and Nantel (2000) also conducted the study "A reliable and valid measurement scale for the perceived service quality of banks" and proposed an alternative measurement method of measuring perceived service quality in retail banking. It comprised of 31 items with six underlying key dimensions. These dimensions were: effectiveness and assurance, accessibility, price, tangibility, service portfolio and reliability. A sample of retail banking customers were questioned during the research in order to develop a reliable and valid scale for the measurement of the perceived service quality of bank services. The beforementioned scale was defined as BSQ (banking services quality). This study concluded that the BSQ dimensions were more reliable and possessed higher validity than the SERVQUAL dimensions, which excludes essential factors like price and service portfolio dimensions. In context of banking sector, BSQ method was found to be more reliable and acceptable than SERVQUAL method to measure the perception of service quality.

Yang et al. (2001) identified 19 Internet pharmacy service quality dimensions in three categories: (1) product cost and availability, (2) customer service and (3) the online information system determining the success of online pharmacy companies and studied about the attributes of service quality leading to satisfaction and dissatisfaction of customers. Easy accessibility, user friendliness, loading/transaction speed, search capability and easy navigation were vital in influencing the satisfaction level of the costumers. Content of the website, more particularly, information matching need of the customer, accuracy of content related with the firm, response time of webpage, aesthetics, innovative attractiveness of the page and catalog pictures of online contents were vital in attracting customers to visit the online pharmacy

service. The privacy of the content was another dimension of customer perception of service quality.

Saruta Tangjai (2011) published her dissertation thesis titled “Internet service providers in Thailand: Evaluation of determinants affecting customer loyalty”. The research helped in identifying the loyalty level of customers for the Internet service providers in Thailand. The retention level of customers by Internet service provider could be evaluated by the loyalty level of customers, whereby the usage level of Internet by the customers was used to compare the service excellence of Internet service provider. 193 respondents completed the questions of the survey and data evaluation was conducted in SPSS. The respondents were categorized in demographic characteristics on gender, age, occupation and education. The customer satisfaction was found to be the most significant factor influencing customer loyalty in Internet service industry of Thailand.

Wolfenbarger and Gilly (2002) conducted online and offline focus group interviews, a sorting task and an online survey of Harris Interactive's customer panel with 64 online based customers and found four determining service quality dimensions for online retailing. Those dimensions were website design, reliability/fulfillment, security/privacy and customer service. These dimensions were strongly predictive of customer judgments of quality and satisfaction, customer loyalty and attitudes toward the website. The survey also developed a reliable and valid scale for the measurement of online quality.

Kaynama, Black and Keesling (2003) conducted the study “Impact of the Internet on internal service quality factor: The travel industry case”. In this qualitative study, the SQM method (Service Quality Model) was applied to gain an insight into the internal service quality factors of two types of travel agencies. In addition, the impact of the Internet on quality of service was explored. This study explained the impact of Internet on service quality in travel industry. As a key finding of the research, the use of Internet for the early booking in cases of hotel and transport had good service quality in the service sector.

Kang and James (2004) published the article “Service quality dimensions: An examination of Gronroos’s service quality model”. This study empirically examined the European perspective (i.e. Grönroos' model) considering three dimensions for evaluating service quality. These dimensions consisted of technical, functional and image expects, whereby image played an important role as a filter in service quality perception. The results from a cell phone service sample revealed that Grönroos' model is a more appropriate representation of service quality than the American perspective with its limited concentration on the dimension of functional quality. The direct effects of functional and technical quality on overall service quality were comparable. The findings showed that the interaction between a consumer and an organization’s representatives does have an important influence on a consumer’s image of the organization and subsequent evaluation of service quality. The research helped managers to better understand how customers assess the quality of services. The results of the study suggested that technical quality, functional quality, and image should be measured to capture an individual’s overall perception of service quality.

Yang and Fang (2004) conducted the study “Online service quality dimensions and their relationships with satisfaction: A content analysis of customer reviews of securities brokerage services”. For this study, they uncovered 52 items across 16 major service quality dimensions by content analysis of 740 customer reviews. According to them, traditional service dimensions, such as competence, courtesy, cleanliness, comfort and friendliness, are not determining factors to online retailing. In contrast to that, however, factors such as reliability, responsiveness, assurance and access are critical to both traditional service quality and E-service quality. The research intended to understand the service quality and customer satisfaction by setting online securities brokerage services. The information quality was also a service quality dimension affecting satisfaction directly or indirectly. The major drivers of satisfaction and dissatisfaction were identified as the sub-dimensional level.

Lee and Lee (2005) conducted the research “The effect of Internet service quality on Internet service loyalty: Mediating role of Internet store satisfaction and Internet store image” to explore the relationship between service quality and Internet store loyalty. The study showed that the Internet service quality is a critical factor to build Internet

store loyalty in e-retailing markets. On the other side, service quality was not found to have any direct effect on the Internet store loyalty. Managers believed that improvement of the store's service quality directly leads to the creation of loyal customers. They had to monitor the image and customer satisfaction because service quality performance itself did not make the customers loyal to the Internet store. The study was conducted with the sample of 380 Internet store consumers. The effect of service quality on Internet store loyalty was fully mediated by factors such as Internet store image and Internet store satisfaction.

Hedman (2005) conducted the study "The user experience of smart phones: A consumption values approach" and tried to understand the user experience of smart phones over time as perceived by its users. According to the data, the way the artifact consumption values change over time. Functional value increase for some participations and declines for others. The direction and magnitude of change is affected by pre-adoption expectations. Social value declines over time due to many factors, including the rapidly changing nature of technology, in which the coolness factors rapidly wear off as other products mimic an innovative artifact. Emotional value is derived both from the iPhone itself (the aesthetic appearance and way it feels to the touch) as well as by software and associated services. The artifact itself satisfies epistemic value, as do the third-party applications, websites etc. the optimistic value inherent with the iPhone drops rapidly. Much of the contextual value strongly depends upon whether an Internet-connected personal computer is available.

Harr (2008) published her master's thesis titled "Service dimensions of service quality impacting customer satisfaction of fine dining restaurants in Singapore". The aim of this explorative research study was to find out the service dimensions of service quality, which lead to higher levels of customer satisfaction. The research showed that restaurants provided high service quality when servers had good knowledge of food and wine and were thus, also able to recommend appropriate food or wine as expected of fine dining restaurants. It also showed that empathy, assurance and tangibles were important service dimensions of service quality for fine dining restaurants in Singapore which could contribute to increase the level of customer satisfaction. This research implied qualitative research methods of depth interviews with 30 diners from

five restaurants in Singapore. The random sampling was done for the study among customers who visited the restaurant on a regular basis.

Ouparamai (2009) published thesis titled “High-speed Internet service providers in Thailand: Customer selection, satisfaction and loyalty”. The research disclosed that service providers must consider four key dimensions: customer satisfaction, corporate image, perceived value and trust to maintain good business relationships with their existing customers. Furthermore, the research showed that the expansion of high-speed Internet services to cover wider areas will be beneficial for a nation as it promotes economic as well as social development of the nation. The quantitative method used questionnaire survey to find the views of 300 Thai Internet users about their perception and opinions while choosing and staying with an Internet provider. The regression analysis was used to find the relationships between independent and dependent variables.

Lee et al. (2001) conducted the study “The impact of switching costs on the customer satisfaction-loyalty link: Mobile phone service in France” and examined the moderating role of switching costs in the customer satisfaction-loyalty link. This study identified customer segments and analyzed the heterogeneity in the satisfaction-loyalty link among different segments and revealed that the main objective of customer satisfaction programs is to increase customer retention rates. In explaining the link between customer satisfaction, cost played an important role.

Rizan (2010) conducted the study "Analysis of service quality and customer satisfaction, and its influence on customer loyalty" based on passengers' survey of domestic full-service airlines company “Garuda Indonesia” in Indonesia. This study explored about the service quality and satisfaction level of customers of Garuda Indonesia Airlines. The research showed that more than 88% of customers of Garuda Indonesia presenting a quality service. The airline was able to satisfy 81.20 % of customers. The result also showed that 84 % of customers will remain as loyal customers for Garuda Indonesia for domestic flight services. This qualitative research used descriptive and explanatory research methods with a sample consisting of 160 passengers travelling frequently with the airline.

Agbor (2011) published her master's thesis titled “The relationship between customer satisfaction and service quality: A study of three service sectors in Umea”. The study explained about the customers satisfaction attached with the service quality of Umea University with respect to service quality dimensions. According to this research study reliability, responsiveness and assurance had significant relationships with both customer satisfaction and service quality while empathy was significantly related to service quality and not customer satisfaction. There was no significant relationship between customer satisfaction and service quality. In contradiction to many previously mentioned research studies from this section, this study claimed that service quality dimensions were independent factors to the relationship between customer satisfaction and service quality.

Jamal and Nassir (2003) conducted the study “Factors influencing customer satisfaction in the retail banking sector in Pakistan” and examined the determinants of customer satisfaction in retail banks in Pakistan. Using survey of 300 questionnaires which was randomly distributed to the customers of a women bank in Pakistan, the study was able to show strong relationship between various dimensions of service quality and customer satisfaction. However, the relationship between tangible aspects of the service environment and customer satisfaction was not supported by the study.

Baharun and Feiz (2012) published the article “A review of service quality models” and found that service quality is the best tool for marketing managers to find out and analyze information regarding customer needs, wants and perceptions about services. It would help managers to identify the problems and develop strategic plans to improve efficiency, profitability and overall performance by improving quality. Validity and reliability of SERVQUAL model has been tested and approved in different areas by researchers. The hierarchical instrument was the most advantageous approach to service quality assessment. The research was done for the review of the service quality models so that improvements can be made in the dimensions for a better result.

Basheer (2012) published journal titled “The relationships between service quality, satisfaction and behavioral intentions of Malaysian Spa Center customers” and

explained about the service quality dimensions influencing overall customer satisfaction level in Malaysian spa. The service quality dimensions like empathy and tangibles were found to be highly influential in spa industry of Malaysia. The satisfaction level of the customers could be increased by improving the aspects of service performance which also led to repurchase intention among customers. The research was conducted with the help of primary data collected from 1200 respondents who visited the spa center. The research was conducted as survey questionnaire using rank system under Likert scale ranging from 1 to 5 from strongly agree to strongly disagree to get user perception of service standard of the spa.

Rahman, Khan and Haque (2012) published the article “Relationship between service quality towards customer satisfaction: Servqual and Gronroos’s service quality model perspective”. This study explained service quality with the technical quality, internal and external influences mediated by corporate image and service quality. The service quality dimensions like assurance, empathy, responsiveness, reliability and tangibility were found to be directly related with the customers’ satisfaction in long run.

Sakhaei, Afshari and Esmaili (2013), published journal titled “The impact of service quality on customer satisfaction in Internet banking” and disclosed that the service quality dimensions: reliability, efficiency, responsiveness and fulfillment, security and website designs were deciding factors for customer satisfaction in Internet banking in Iran. The result showed that reliability index had the highest and a website design has the lowest effect on customer satisfaction. Nonetheless, average customer satisfaction did not differ between the websites of different banks and the customer satisfaction was related with the service quality dimensions.

Neger, Ahamed and Mahmud (2013) published journal titled “Measuring service quality of Internet service providing firms in Bangladesh”. The research study showed that the consumers have some level of knowledge about the different quality dimensions of Internet service and service quality of individual Internet service providing firms. The findings highlighted the need to gain and understand the impact of quality dimensions and their contribution to the service providing firms’ performance individually. The main quality dimensions on which the consumers were

satisfied were assurance and tangibility. The three Internet service providers like Akij Online Limited, Grameen Cyber Net Limited and Link3 had quality dimensions which lead to satisfaction of customers.

Saghier and Nathan (2013) conducted study titled “Service quality dimensions and customer’s satisfactions of banks in Egypt” and explained about the customer’s satisfaction level affected by service quality dimensions in case of bank. The customer’s satisfaction level of Egyptian banking services was significantly affected by reliability, empathy, assurance and responsiveness. However, the effect of the dimension of tangibility did not have any significant impact on customer satisfaction. The result showed that the banks’ customers would prefer to deal with human being rather than machines. The result also showed that tangibility has relationship but no significant effect on customer satisfaction.

Chang, Chen and Lan (2013) conducted the research “Service quality, trust and patient satisfaction in interpersonal based medical service encounters” and explained about the service quality of medical service. According to the findings, interpersonal-based medical service encounters positively influenced service quality and patient satisfaction. In addition, the differences for patients’ perceptions of the professional skill and communication attitude of personnel in interpersonal-based medical service encounters influenced patients’ overall satisfaction in two ways: (A) interpersonal-based medical service encounter directly affected patient's satisfaction, which represents a direct effect; and (B) service quality and patient trust were used as intervening variables to affect patient satisfaction, which represented an indirect effect. Furthermore, the service sector targeted by the customers as the service could not be measured, rather could be compared by the words of customers. The need and demand of the related service would help to find the part in the better perspective of service quality of the service. So, the service sector had to understand the customer voice so that they can quantify the quality in the service and give the best to the targeted customers. The researchers adopted a cross-sectional design using a questionnaire survey of outpatients in seven medical centers of Taiwan and evaluated 285 valid responses using SPSS 14.0 and AMOS 14.0 statistical software packages.

Yarimoglu (2014) published the journal “A review of service and e-service quality measurements”. The research showed that the quality of service could be measured in terms of service dimensions, even though different service industries have different service quality measurement procedures and methods. To measure service quality effectively in different industries, an industry specific service quality index needed to be developed since every industry has unique characteristics. Moreover, the validity of SERVQUAL had to be examined in a variety of service industries and the adaptations of items in SERVQUAL for each industry needed to be organized. Service quality also varied in different countries due to different cultural and regional dissimilarities which can have substantial effect on customers’ perceptions on quality.

Ariffin et al. (2014) conducted the research “Gap analysis of bank’s service quality: Local banks versus foreign banks” and compared performance level of local banks with foreign banks in case of quality. The service quality was crucial for the service provider whether that belongs to the financial sector or other sectors. The research explained the reasons for the higher service quality of foreign banks in comparison to that of local banks. Usually, foreign banks tried to gain new customers as well as retain existing customers by providing better quality service.

Nalini et al. (2014) published the journal “A pragmatic study on the service gap analysis of an Indian public sector bank” and explained about the service quality analysis of public bank in India. 491 questionnaires sampling was done with 10 branches of SBI Bank. The customer satisfaction was mainly determined by five main dimensions of service quality: assurance, tangibles, responsiveness, empathy and reliability. The research also showed that SBI Bank was not focusing on physical facilities like sitting facilities, parking facilities and interior decors. Most of the respondents allocated the assurance with the lowest weight.

Quach, Thaichon and Jebarajakirthy (2016) published journal of retailing and consumer services titled “Internet service provider’s service quality and its effect on customer loyalty of different usage patterns”. The study showed that service quality dimensions can influence both attitudinal and behavioral loyalty. The effects were diverse across different groups of ISP customers. The impact of service quality

dimensions on customer loyalty in high-tech service settings were analyzed and explained through segmentation of 1231 Internet users based on their usage pattern and evaluating their perceptions of Internet service quality dimensions.

Gera et. al (2017) conducted the research study “Evaluating the effects of service quality, customer satisfaction and service value on behavioral intentions with life insurance customers in India”. It aimed to empirically test and evaluate the direct and indirect effects of service encounter constructs of service quality, customer satisfaction and service value on loyalty related behavioral intentions of customers in Indian life services. Further, the study aimed to contribute to resolution of the variance in structure and dimensionality of service quality by developing and validating a second order model of service quality which integrates the two dominant perspectives: the Nordic and the American approach. The study concluded that service quality is a second order construct consisting of the dimensions of core service, service delivery, sales agent quality, tangibles and empathy. Service delivery and sales agent quality, being referenced as process dimension of service quality, were found out to be very important in overall service quality perceptions. The effect of service quality on positive behavioral intentions was both direct and indirect with the moderating effect of service value and customer satisfaction being significant.

Hallencreutz and Parmler (2019) conducted the study “Important drivers for customer satisfaction – from product focus to image and service quality” to get an in-depth understanding of the drivers of customer perception and satisfaction. The paper suggests that customer satisfaction, being an important non-financial performance indicator, cannot be taken as status quo because it constantly evolves over time. Furthermore, a high level of customer satisfaction was argued to lead to stronger company image, protection of current market share, increased customer loyalty, decreased customer complaints and strengthened financial performance. The study found that product quality being substituted by service quality as one of the most crucial drivers for customer satisfaction throughout industries and societal sectors and suggests a need for new principles, practices and tools to enhance internal customer centricity and strengthen satisfaction and loyalty.

Hertzberg, Rask and Bengtsson (2020) published the research paper “The relationship between service quality, customer satisfaction and brand loyalty: A study comparing generation X and Y in Sweden”. The study analyzed if service quality has any significant impact on brand loyalty, where customer satisfaction was used as an indicator for brand loyalty. Moreover, they tried to find out if generational differences have any impact on how service quality is valued by the consumer in terms of customer satisfaction and brand loyalty. An experiment was conducted in the form of two surveys among 99 participants belonging to either Generation X or Generation Y, where customer satisfaction was measured as a result of either neutral or excellent service quality. The results showed and confirmed that service quality has a significant effect on both customer satisfaction and brand loyalty, where evidence was found that excellent service quality highly impacted the participants’ satisfaction as well as their level of loyalty towards a brand. Also, generational differences did not have any significant impact in evaluating service quality.

Slack, Singh, and Sharma (2020) conducted the research “The effect of supermarket service quality dimensions and customer satisfaction on customer loyalty and disloyalty dimensions”. This study collected data from 480 supermarket customers through public intercept survey and aimed to examine the effect of service quality dimensions and customer satisfaction on customer repurchase intention, word-of-mouth, complaining behavior and price sensitivity, as well as the effect of service quality dimensions on customer satisfaction. Results of the study revealed the predominance and magnitude of effect of empathy positively on customer satisfaction, customer repurchase intention and word-of-mouth, and negatively on customer complaining behavior and price sensitivity. Moreover, customer satisfaction was also found to significantly affect the customer loyalty and disloyalty dimensions.

2.2 Review of Empirical Studies in Nepal

In context of Nepal, few research studies are openly available in the topic of service quality and customer satisfaction. Shrestha and Koirala (2012) conducted the research “Measuring service quality and customer satisfaction: Empirical evidence from Nepalese commercial banking sector undertakings” and attempted to measure service

quality and customer satisfaction with respect to the service quality dimensions in the Nepalese commercial banking sector. They implemented the methods of descriptive statistics, correlation, and regression analysis to measure relationship among service quality dimensions, service quality and customer satisfaction variables. The study found out that all the SERVQUAL dimensions (i.e., tangibles, reliability, responsiveness, assurance and empathy) were very crucial in forming service quality and customer satisfaction. Furthermore, service quality was found to have great influence on customer satisfaction.

Similarly, Bhatta and Durgapal (2016) conducted the study “Service quality perceptions and customer satisfaction in Nepalese banking sector” and found a strong correlation between service quality dimensions and customer satisfaction. Furthermore, the regression analysis revealed reliability, tangibility, empathy and responsiveness as statistically significant predictors of customer satisfaction. In summary, the service quality dimensions and customer satisfaction were related constructs, and service quality was found to be an antecedent to customer satisfaction.

Neupane and Devkota (2017) conducted and published the research study “Evaluation of the impacts of service quality dimensions on patient/customer satisfaction: A study of private hospitals in Nepal”. The aim of this research was to examine the impacts of service quality dimensions on patient satisfaction in private hospitals in Nepal. For this the researchers collected primary data from 490 patients of different 10 private hospitals in Kathmandu and tested their hypotheses by analyzing five factors of SERVQUAL dimension and four factors of patient satisfaction in reference to price, image, perceived quality and convenience. The results indicated that each dimension of service quality is positively correlated with patient satisfaction and service quality has strong positive impacts on patient satisfaction. Similarly, the results also indicated that private hospitals in Nepal are providing high level of service quality in the view of patients/customers and there is high level of patient satisfaction at the private hospitals in Nepal.

Another similar study by Thapa and Ghimire (2017) on “Service quality perception and patient satisfaction: Evidence from private hospitals in Kathmandu” examined the

level of service quality of private hospitals with dependent (patient satisfaction) and independent variables such as responsiveness, reliability, assurance, empathy and tangibility and came to a similar result. All the dimensions of service quality i.e., responsiveness, reliability, assurance, empathy and tangibility were positively correlated with respondent's satisfaction. Moreover, tangibility and assurance were strongly correlated in perceived service quality satisfaction offered by private hospitals.

Pitambar Lamichhane (2018) conducted the research on topic "Service quality on customer satisfaction in Nepalese commercial banks" and analyzed bank customers' perception in relation to the service quality factors explaining customer satisfaction. He conducted a survey questionnaire to collect data from bank customers using structural questionnaire in Kathmandu valley and applied descriptive and regression research design using SERVQUAL approach to analyze service quality factors affecting customer satisfaction. Result of the study indicated that bank service quality factors affect customer satisfaction. This paper concluded that bank service quality factors reliability, assurance, tangibility, empathy and responsiveness determine the level of customer satisfaction. Tangibility, assurance and empathy were strong and had more explaining power of customer satisfaction in Nepalese commercial banks.

Shrestha and Ale (2019) conducted the research "The study of service quality and its relationship on customer satisfaction of Nepal Telecom (NT) in Nepal" and explored the impact of the dimensions of service quality on the perceived performance of Nepal Telecom phone users in Kathmandu valley of Nepal. A survey questionnaire was conducted to collect data from 200 respondents using a probabilistic sampling technique which was later analyzed through quantitative approach using different descriptive and correlation analysis tools. According to the findings of the study all the five dimensions of service quality showed a significant effect on customer satisfaction. Similarly, all service quality dimensions had strong and positive impact on customer satisfaction. The main factors of customer satisfactions were network coverage, billing method, customer care center, promotion and value-added schemes and delivery of SMS and MMS quality.

Dhodary and Joshi (2020) also conducted the research “Investor’s Perception towards service quality of DEMAT Account in Nepal” and analyzed the investors’ perception towards service quality of DEMAT account in Nepalese capital market. The researchers collected primary data by administered questionnaire through the investors and used descriptive research design. Service quality and customer satisfaction were found to be interrelated. Similarly, higher service quality also led to higher satisfaction among investors. Moreover, they found out that investor’s perception towards service quality of DEMAT account met Nepalese investor’s expectations and they were satisfied with the different features of DEMAT.

Thus, this research is unique as it tries to get an insight of Internet users' perception of service quality and their satisfaction level. It will help to explain the relationship between variables in a more authentic and strong manner to eliminate the existing gap in the study of service quality of ISPs. Furthermore, it will help to find the dimensions affecting the service quality and try to resolve the existing problems. The level of competitiveness between ISP companies can be measured with the help of this research. The study also highlights the service quality dimensions for Internet providers. Thus, the Internet providers can employ effective measures to improve their services and meet customers’ expectations. This will ultimately help to retain existing customers as well as attract new customers. As a result, the service provider can expand its market, get new subscribers and increase profit.

2.3 Summary of Literature Findings

Table 1.2

Empirical studies on user perception and customer satisfaction

Researcher(s)	Area of study	Summary of findings
Panel A: Foreign Studies		
Parasuraman, Zeithaml and Berry (1985)	Customer expectations and perceptions of provided service	Perceptions result from a comparison of consumer expectations with actual service performance
Zeithaml (2000)	e-SERVQUAL method for measuring E-service quality	Efficiency, reliability, fulfillment and privacy form the core of e-SERVQUAL scale
Bahia and Nantel (2000)	Perception of service quality in retail banking	BSQ method more reliable and acceptable than SERVQUAL method in banking sector
Yang, Peterson and Huang (2001)	Internet pharmacy service quality	Easy accessibility, user friendliness, loading/transaction speed, search capability and easy navigation influenced the satisfaction level of the costumers
Kang and James (2004)	Influence of technical, functional and brand image expects on perception of service quality	Interaction between a consumer and an organization's representatives influences consumer's image of the organization and evaluation of service quality
Yang and Fang (2004)	Online service quality dimensions and their relationship with satisfaction level of customers	Reliability, responsiveness, assurance and access critical to both traditional service quality and E-service quality
Lee and Lee (2005)	Effect of Internet service quality on loyalty	Internet service quality crucial in building Internet store loyalty in e-retailing markets
Harr (2008)	Service quality dimensions leading to higher customer satisfaction	Empathy, assurance and tangibility increase customer satisfaction
Rizan (2010)	Service quality, loyalty and customer satisfaction in airlines business	Performance, service delivery, responsiveness and tangibility influential in determining service quality and maintaining loyalty

Basheer (2012)	Service quality and customer satisfaction in spa industry	Empathy and tangibility highly influential for maintain customer satisfaction and leading to repurchase behavior
Sakhaei, Afshari and Esmaili (2013)	Impact of service quality on customer satisfaction in Internet banking	Reliability, efficiency, responsiveness and fulfillment, security and website designs were deciding factors for customer satisfaction
Ariffin, Aziz and Rahman (2014)	Gap analysis of service quality between local and foreign banks	Foreign banks focus more on gaining new customers as well as retaining existing customers by providing better service quality
Quach, Thaichon and Jebarajakirthy (2016)	Internet service provider's service quality and its effect on customer loyalty	Service quality dimensions influence both attitudinal and behavioral loyalty of customers
Gera, Mittal and Batra (2017)	Effects of service quality, customer satisfaction and service value on behavioral intentions with life insurance customers in India	Service delivery and sales agent quality were important in overall service quality perceptions
Hallencreutz and Parmler (2019)	Drivers of customer perception and satisfaction	High level of customer satisfaction leads to stronger company image, protection of current market share, increased customer loyalty, decreased customer complaints and strengthened financial performance
Hertzberg, Rask and Bengtsson (2020)	Relationship between service quality, customer satisfaction and brand loyalty	Service quality has a significant effect on both customer satisfaction and brand loyalty. Generational differences did not have any significant impact in evaluating service quality.
Slack, Singh, and Sharma (2020)	Effect of supermarket service quality dimensions and customer satisfaction on customer loyalty and disloyalty dimensions	Predominance and magnitude of effect of empathy positively on customer satisfaction, customer repurchase intention and word-of-mouth, and negatively on customer complaining behavior and price sensitivity.

Panel B: Nepalese Studies

Koirala and Shrestha (2012)	Service quality and customer satisfaction in Nepalese banking sector	All service quality dimensions were crucial in determining service quality and customer satisfaction. Customer satisfaction was highly affected by service quality.
Bhatta and Durgapal (2016)	Service quality perceptions and customer satisfaction in Nepalese banking sector	Strong correlation between service quality dimensions and customer satisfaction
Neupane and Devkota (2017)	Service quality and customer satisfaction of patients in private hospitals of Nepal	Each dimension of service quality positively correlated with patient satisfaction and strong positive impacts of service quality on patient satisfaction
Thapa and Ghimire (2017)	Service quality perception and patient satisfaction	All dimensions of service quality positively correlated with respondent's satisfaction. Tangibility and assurance strongly correlated in perceived service quality satisfaction offered by private hospitals.
Pitambar Lamichhane (2018)	Customer satisfaction in Nepalese commercial banks	Tangibility, assurance and empathy strongly influential in determining customer satisfaction
Shrestha and Ale (2019)	Service quality and its relationship on customer satisfaction of Nepal Telecom	All five dimensions of service quality had a significant effect on customer satisfaction
Dhodary and Joshi (2020)	Investor's Perception towards service quality of DEMAT Account in Nepal	Higher service quality led to higher satisfaction among investors and their perception towards service

2.4 Theoretical Framework

The framework explains about the relationship between independent and dependent variables in the study. The factors affecting the study are targeted by the theoretical framework. It explains about the dependent and independent variables used for the measurement of quality control. The perceived service quality is dependent variable, whereas the five dimensions of SERVQUAL model, namely: empathy, responsiveness, tangibility, reliability and assurance are independent variables of the

research. The relationship between the dependent und independent variables has been illustrated in Figure 2.1.

Independent Variables

Dependent Variable

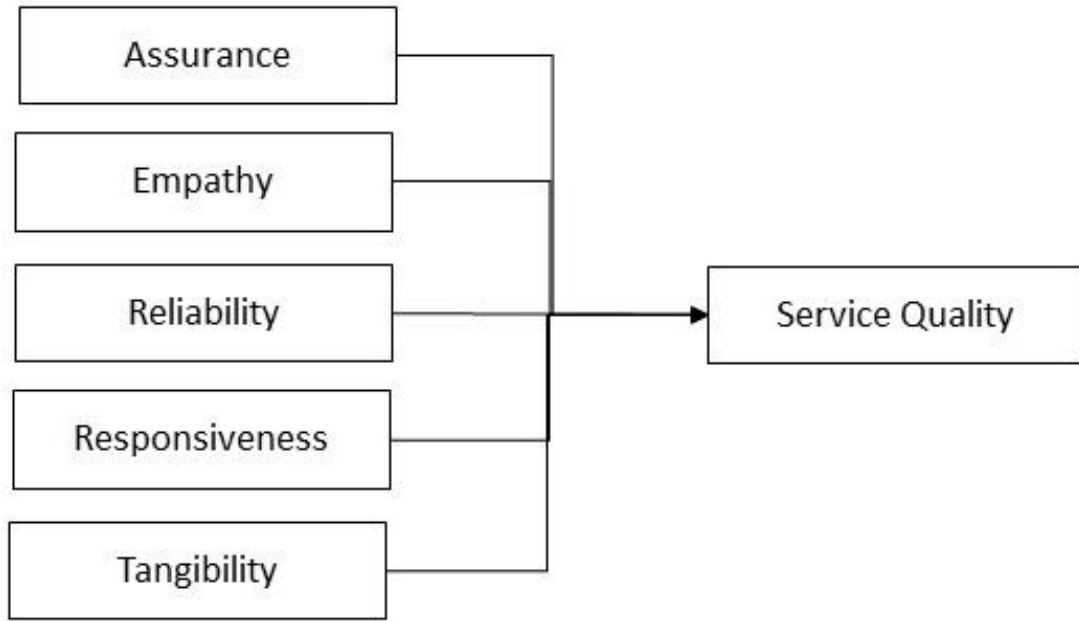


Figure 2.1 *Research hypothesis, source: own illustration*

The customers always look for a good quality standard while getting the service from Internet service provider companies. So, the study specified the service quality and measurement of dimensions of the factors. The moderating variables are influencing factors of the quality of the service. The demographics factors like age, gender, occupation, income and education are only considered for getting detailed information of the user profiles. The relationship can be measured in the correlation method in SPSS. The speed of the Internet, the accuracy of maintenance, the personalization of the system, the location of the Internet companies, the space, the volume of the Internet, the frequency of maintenance of the Internet break-down and the customer centric approach are the factors influencing the service quality dimensions and customer satisfaction level.

Based on key paper, current research has been initiated that focuses on the ISP companies in Lalitpur. The service quality is dependent variables where independent variables are empathy, responsiveness, tangibility, assurance and reliability and

income level, age group, occupation and education as moderating variables in the study. It will help to establish the relationship between these three variables for the completion of the research.

2.5 Research Gap

In context of Nepal, most of the research studies were targeted towards the service quality of telecommunications industry, banks and hospitals of Nepal. The research studies conducted by Koirala and Shrestha (2012), Bhatta and Durgapal (2016), Pitambar Lamichhane (2018) and Dhodary and Joshi (2020) focused on the customer satisfaction in banking sectors of Nepal. Similarly, Neupane and Devkota (2017) and Thapa and Ghimire (2017) conducted their research studies in health institutions of Nepal. Shrestha and Ale (2019) also conducted a research study about service quality and its relationship on customer satisfaction of Nepal Telecom.

However, there were limited research studies conducted on service quality and customer satisfaction in Internet service sector of Nepal. Similarly, there was no research study about the Internet service standard and customer satisfaction of service quality in southern Lalitpur, especially from customer perspective. Thus, this research can be considered unique, as it tries to explore the service standard of Internet service provider in southern Lalitpur from customer's side of view. Any research to this topic was not found to have been conducted previously in southern Lalitpur. Hence this research insists to explain the current scenario of service quality and customer satisfaction of ISP inside southern Lalitpur in a more authentic and strong manner. As a result, this research tries to eliminate the existing research gap in the study of service quality and customer satisfaction of Internet service providers in southern Lalitpur.

CHAPTER 3

RESEARCH METHODOLOGY

Research methodology is the specific procedures or techniques used to identify, select, process, and analyze information about a topic (Kothari, 2004). It is a science of studying how research needs to be carried out scientifically and systematically. Basically, the procedures which researchers go through their work of describing, explaining and predicting phenomena of study is called research methodology.

Research methodology describes the methods and processes applied in the entire aspects of study and helps to resolve the problem systematically. It is used to collect information and data sets associated with the study and may include both present and historical information which provides a basic framework on which the study is based. Before analysis and interpretation of data, it is necessary that research methodology be described first.

This chapter explains the methodology that is employed in this study which includes various sections describing research plan and design, sample description, instrumentation, data collection procedure and time frame, validity and reliability of the study and analysis plan. In the absence of methodology, the conclusions drawn can be misleading. The research is done systematically in order to get valid result from the research methodology.

3.1 Research Design

The research design refers to the overall strategy to integrate the different components of the study in a coherent and logical way, thereby, ensuring effective addressing of the research problem (Kirshenblatt-Gimblett, 2006). It constitutes the blueprint for the collection, measurement, and analysis of data.

This study has employed descriptive research design and casual comparative research design to deal with issues associated with the customer satisfaction among major ISPs in Lalitpur. The descriptive research design has been adopted for searching the essential data and information about factors affecting the consumers' perception of

quality service towards their service providers. This study also used the casual comparative research design to establish the cause-and-effect relationship of perceived usefulness, perceived ease of use, perceived enjoyment, price and bandwidth speed with consumer's satisfaction. Casual-comparative research design attempts to determine the cause or consequences of existing differences between the variables and the relationship between independent and dependent variables.

3.2 Population and Sample Size

The research was conducted inside Lalitpur with a population of around 1.5 million (United Nations, 2018). However, it is impossible to conduct a research on whole population. So, the basic part is going through sampling of the population. The sample consisted of 120 Internet subscribers of different ISP companies. The respondents for this research were collected through non-probability sampling technique: convenience sampling. The sample size of 120 consisted of ISP customers of different age, income, occupational and educational background. They were provided questionnaire in form of an anonymous online survey.

3.3 Data Collection Procedure

Both primary and secondary data were used for this research study. The primary data and information necessary for the research study was collected from structured questionnaire survey which contains the respondents related information through tick mark questions. The survey was conducted online and anonymously. The data was analyzed in descriptive and casual comparative method. The relationship between dependent and independent variables were analyzed in multi-step regression analysis to determine the relationship between customers' satisfaction level towards ISPs and the factor affecting it. Additionally, secondary data gathered from different articles, findings and research papers were used to cross check the validity of the findings.

3.4 Data Analysis Plan

After collecting the user responses through questionnaire, acquired information was analyzed using several methods. This involves various procedures of getting relevant

facts to find out the conclusions. Being a descriptive research following tools were used to analyze the data. Following are some important terminologies necessary to interpret the outcomes of the data analysis.

3.4.1 Linear Regression Model

Linear regression is a mathematical model to represent the relationship between two variables by fitting a linear equation to observed data, whereby one variable is an explanatory variable and the other is a dependent variable. Regression analysis is used for predicting the value of one or more outcomes from a set of predictors, and thus, estimating the linear association between them.

A simple univariate linear regression model has an equation of the form $y = a + b*x$, where y is the dependent variable and x the independent variable. The slope of the line is represented by b , and a is the intercept (i.e. the value of y when $x = 0$).

Similarly, a multiple linear regression model with one dependent and multiple independent variables can be represented in the form:

$$y = \beta_0 + \beta_1x_1 + \beta_2x_2 \dots + \beta_nx_n + e$$

where,

$x_1 \dots x_n$ represent independent variables assurance, empathy reliability, responsiveness and tangibility respectively with corresponding regression coefficients $\beta_1 \dots \beta_n$. Furthermore, y represents the dependent variable service quality, β_0 the intercept and e the random error respectively.

Typically, the regression line is fitted with the method of least-squares by calculating the best-fitting line for the observed data by minimizing the sum of the squares of the vertical deviations from each data point to the line. Because the deviations are first squared, then summed, there are no cancellations between positive and negative values.

3.4.2 Mean and Standard Deviation

Given a data set, the arithmetic mean is the average value of data set: specifically, the sum of the values divided by the number of values. If the data set is based on a series of observations obtained by sampling from a statistical population, the arithmetic mean is equal to the arithmetic mean of the given property while considering every member of the population.

Mathematically, it is the sum of the values divided by the number of values. The arithmetic mean of a set of numbers x_1, x_2, \dots, x_N is typically denoted by \bar{x} and can be expressed in the form:

$$\bar{x} = \frac{x_1 + x_2 + \dots + x_N}{N}$$
$$\bar{x} = \frac{\sum_{i=1}^N x_i}{N}$$

where,

x_i = population of the variable 'x',

Σ = sum of all the observed value,

N = total number of observations and

\bar{x} = average or mean of the data set

Similarly, standard deviation is the measure of the dispersion or variation of a set of data values. Mathematically, standard deviation is indicated with Greek letter symbol σ , or sd or s. A low σ indicates that the data values are tightly clustered around the mean or expected value, whereas a high value of σ represents a wider distribution of the data values from the mean value. The standard deviation is generally used to measure confidence in statistical conclusions, for instance, the margin of error or standard error.

The standard deviation of a random variable, statistical population, data set, or probability distribution is the square root of its variance. Mathematically, standard deviation is denoted by the formula:

$$\sigma = \sqrt{\frac{1}{N-1} \sum_{i=1}^N (x_i - \bar{x})^2}$$

3.4.3 P-value and T-value

The t-value measures the size of the difference relative to the variation in the sample data. t is simply the calculated difference represented in units of standard error. The larger the magnitude of t, the greater is the evidence against the null hypothesis. This means there is greater evidence of significant difference between sample and population. The closer t is to 0, the more likely there is no significant difference.

t and p are inextricably linked. If the p-value is very low (< alpha level), the null hypothesis is rejected and concluded that there is a statistically significant difference. The larger the absolute value of the t-value, the smaller the p-value, and the greater the evidence against the null hypothesis.

3.5 Instrumentation of Data

The questionnaire design was explained by the help of theoretical framework which shows the format of questionnaire. The questionnaire was designed by relating the factors involving with the quality and service. The survey questionnaire was designed in a simple, clear and understandable way. The major question types used were Yes/No question, single response, multiple responses, ranking question and Likert scale question.

3.6 Validity and Reliability

The reliability and validity are one of the important tools to find out the right result for effectiveness of research. Reliability deals with the accuracy and correctness of the procedure. Similarly, validity is the extent to which a concept, conclusion or measurement is well-founded and likely corresponds accurately to the real world. To evaluate the outcomes of the research about its validity and reliability, several

methodologies including cross checking, pilot testing and pre-testing and Cronbach's testing were performed.

A formula for Cronbach's testing is illustrated below:

$$\rho\alpha = \frac{N\bar{c}}{\bar{v} + (N-1)\bar{c}}$$

where, N is equal to the number of items, \bar{c} is the average inter-item covariance among the items and \bar{v} equals the average variance.

As per the rule of thumb, if Cronbach's alpha is greater than 0.9, the internal consistency is excellent. Similarly, if Cronbach's alpha is greater than 0.7 it is acceptable. However, Cronbach's alpha is less than 0.5 is unacceptable.

CHAPTER 4

RESULTS AND DISCUSSION

This chapter has two sections. In the first section data are analyzed statistically and results are presented and interpreted. In the second section the outcomes of the research hypotheses are discussed based on the results of the research.

Data analysis is a process of inspecting, cleansing, transforming, and modeling data with the goal of discovering useful information, suggesting conclusions, and supporting decision-making. It is the next necessary step after collecting and systematically arranging the responses for revealing the relevant facts from the information and data provided by the respondents. For this research purpose, Microsoft Excel and SPSS were used to analyze the data collected from questionnaire. The descriptive statistics was used to analyze the data like percentage, frequency and cross tabulation. Analyzing the data also involves necessary coding as well as editing of the analyzing tool. The errors were highlighted, and the correction was done. The coding was given as per the requirement to enter the data at last stage. The coding and categorization were done before the entry of the data collected.

Data analysis has been divided in three categories: demographic, descriptive and inferential analysis.

4.1 Demographic Analysis

In the first part, the demographic information of the respondents was analyzed to get an insight of user profiles. Several factors like age, occupation and income level were inquired in this section. As these factors influence the service provider selection as well as Internet usage behaviors of users, an analysis of demographic information is of significant relevance.

Table 4.1

Sample distribution based on gender

Gender	Frequency	Percentage (%)	Cumulative Percentage (%)
Male	87	72.5	72.5
Female	33	27.5	100
Total	120	100	

Table 4.1 illustrates the gender distribution of respondents from the survey questionnaire conducted for the research. A total of 120 responses were collected from the survey. According to the collected information, 87 of respondents were male. This accounted for 72.5% of total respondents. Similarly, the female gender contributed to almost over one fourth of the total responses with 27.5%. Thus, the higher percentage of respondents were male with almost a triple ratio of participation in comparison to female.

Table 4.2

Sample distribution based on age group

Age of respondent (years)	Frequency	Percentage (%)	Cumulative Percentage (%)
Below 20	11	9.2	9.2
20-30	75	62.5	71.7
30-40	24	20	91.7
Above 40	10	8.3	100
Total	120	100	

Table 4.2 shows the classification of respondents based on different age groups. According to the survey, 75 respondents were between 20 and 30 years old and accounted for 62.5% of the total responses. The second highest age group was between 30 and 40 years with 24 respondents and accounting 20% of total responses. Similarly, only 11 respondents were below 20 years of age representing 9.2% of the respondents. On the other hand, age group above 40 years of age represents the

minority of the classification with only 10 respondents accounting for 8.3% of total survey responses. In summary, over 90% of respondents were younger than 40 years of age. This also reflects the usual scenario of large number of active Internet users among youth generation.

Table 4.3

Sample distribution based on academic qualification

Academic qualification	Frequency	Percentage (%)	Cumulative Percentage (%)
SEE or lower	3	2.5	2.5
Higher secondary	29	24.2	26.7
Bachelor's degree	56	46.7	73.3
Master's degree	30	25	98.3
Above master's degree	2	1.7	100
Total	120	100	

Table 4.3 illustrates the classification of respondents with reference to their academic qualifications. For this purpose, the classification is done by sectioning the academic qualification in four main subcategories according to the education system of Nepal. From the above table, it can be observed that only 3 out of 120 respondents were found to have an academic qualification lower or equivalent to SLC. Similarly, 29 respondents have acquired a higher secondary education accounting. Moreover, 56 respondents have achieved or are pursuing a bachelor's degree. On the other hand, one fourth of total respondents have master's degree. Similarly, only 2 out of 120 respondents had an academic qualification higher than a master's degree.

Table 4.4

Sample distribution based on income

Monthly Income of Respondent (NRP)	Frequency	Percentage (%)	Cumulative Percentage (%)
Below 10,000	5	4.2	4.2
10,000-20,000	24	20	24.2
20,000-30,000	38	31.7	55.8
30,000-40,000	33	27.5	83.3
Above 40,000	20	16.7	100
Total	120	100	

Table 4.4

Sample distribution based on income

shows the distribution of respondents based on their monthly income in NRP. From the data of the respondents, 5 respondents were earning less than 10,000 NRP per month. This represents 4.2% of total responses. On the other hand, 24 respondents were earning in the range of 10,000-20,000 NRP accounting for 20% of total respondents. It was found that almost 32% of the respondents earned in the range of 20,000-30,000 NRP per month. Similarly, almost every fourth respondent was earning between 30,000 and 40,000 NRP per month. Only 16,7% of respondents were earning above 40,000 NRP monthly. To summarize, 83.3% of respondents were earning below or equivalent to 40,000 NRP per month.

Table 4.5

Sample distribution based on occupation

Occupation status of respondent	Frequency	Percentage (%)	Cumulative Percentage (%)
Student with minor job	5	4.2	4.2
Student + employed	40	33.3	37.5
Part-time job	7	5.8	43.3
Full-time job	68	56.7	100
Total	120	100	

Table 4.5 shows a distribution of respondents based on occupation. As shown in table, only 5 respondents were students with a minor job. This represents the minority of respondents with a total of 4.2% students working just for earning some pocket money. Similarly, 40 students had a part time job. This accounts for one third of the sample population. In addition, only 5.8% had a part-time job. In contrary, 68 respondents had a full-time job. Thus, majority of the respondents accounting for 56.7% had a full-time job.

4.2 Descriptive Analysis

Descriptive statistic is a method of analyzing and describing the data and information collected. It describes data and information in a quantitative manner and aims to summarize the sample. In this research, the descriptive statistics have been done for the purpose of determining the perception of Internet service quality by the sample size of customers. For this, five SERVQUAL dimensions as described in the theory section have been considered for the descriptive statistics analysis. The frequency and the percentage have been derived after preprocessing of the collected information for generating better understanding of the hidden facts from the responses of sample research questionnaires.

Table 4.6

Sample by daily Internet usage

Daily Internet usage (hours)	Frequency	Percentage (%)	Cumulative Percentage (%)
Less than 1 hour	5	4.2	4.2
1 - 3 hours	24	20	24.2
3 - 5 hours	46	38.3	62.5
5 - 10 hours	32	26.7	89.2
More than 10 hours	13	10.8	100
Total	120	100	

Table 4.6 illustrates the daily usage behavior of Internet service in hours. According to the collected information, only 5 out of 120 respondents use Internet for less than 1 hour daily. Internet users accessing the service between 1-3 hours daily contribute 20% of total responses. Majority of the respondents use Internet daily for 3 to 5 hours. This contributes with 46 out of 120 respondents for 38.3% and over one third of total sample population. Similarly, 32 respondents use Internet for 5 to 10 hours daily. 13 out of 120 respondents revealed that they access Internet service for longer than 10 hours daily. To summarize, 75% of respondents use Internet for at least 3 hours and over 95% for at least 1 hour per day. This also indicates how important has the

Internet service been in daily life of common people reflecting the high speed of Internet services expansion from numerous commercial firms within few years.

Internet service is used for various purposes from communication to Internet surfing as well as for commercial activities like eBanking, eCommerce and eLearning. Thus, the survey was extended to further investigate the usage behavior and purpose of accessing the Internet service. Described below are some main purposes of Internet usage by the customers.

Table 4.7

Internet usage for social communication

Social communication	Frequency	Percentage (%)	Cumulative Percentage (%)
Yes	103	85.8	85.8
No	17	14.2	100
Total	120	100	

Table 4.7 shows the Internet usage behavior of respondents for the purpose of social communication. For the purpose of this research social communication has been described as a mean of communicating via texting, voice call, video call or any similar method of exchanging information between two or several parties, especially for informal communication between friends and relatives. The table shows that 103 out of 120 respondents used Internet for communication. This contributes to almost 86% of the responses from the users. In contrary, only 17 out of 120 respondents did not use Internet for this purpose. Thus, it can be concluded that almost every respondent used Internet for communication or social networking.

Table 4.8

Internet usage for E-mail

Email	Frequency	Percentage (%)	Cumulative Percentage (%)
Yes	62	51.7	51.7
No	58	48.3	100
Total	120	100	

Internet usage for email communication can be illustrated as different from social communication in the sense that the latter case (i.e., email) applies mostly for formal activities relating to jobs and businesses whereas the former case (i.e., social communication) involves mostly informal communication between friends and relatives. Table 4.8 shows that 62 out of 120 respondents used Internet for exchanging Email. This represents 51.7% of total respondents. On the contrary, 58 out of 120 respondents representing a total of 48.3% did not use Internet for electronic mailing service. Some reasons behind this large number of respondents not using Email service may be lower academic background of respondents, technological gap or unnecessary of using it in daily life purpose. To summarize, almost every second Internet user was familiar with email service for communication.

Table 4.9

Internet usage for accessing multimedia contents

Accessing multimedia contents	Frequency	Percentage (%)	Cumulative Percentage (%)
Yes	97	80.8	80.8
No	23	19.2	100
Total	120	100	

In reference to accessing multimedia, users go online for getting Internet contents like videos or music for entertainment as well as educational purpose. Diverse platforms like YouTube, Netflix, TikTok and digital channel services provide video streaming. On the other side, platforms like iTunes and Spotify give access to audio streaming. Table 4.9 shows that 97 out of 120 respondents used Internet for accessing multimedia contents. Is represents over 80% of total respondents. In contrary, 23 out of 120 respondents did not use Internet for accessing multimedia contents. The non-users represent almost 20% of total respondents.

Table 4.10

Internet usage for social networking

Social networking	Frequency	Percentage (%)	Cumulative Percentage (%)
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Yes	106	88.3	88.3
No	14	11.7	100
Total	120	100	

Table 4.10 explains the use of Internet for social networking like accessing to social networking sites like Twitter, Facebook, WhatsApp or Instagram. The responses collected from the survey shows that 106 out of 120 respondents accounting for a total of 88.3% use Internet for social networking. However, the remaining 14 respondents representing a total of 11.7% did not use Internet for social networking. To summarize, due to easy accessibility of Internet and huge global success of many social networking sites, almost 9 out of 10 users had one or more social networking account.

Table 4.11

Internet usage for web surfing and content searching

Web surfing	Frequency	Percentage (%)	Cumulative Percentage (%)
Yes	88	73.3	73.3
No	32	26.7	100
Total	120	100	

Table 4.11 explains the user Internet consumption behavior for web surfing and accessing information for research or study purpose. It shows that 88 out of 120 respondents use Internet for accessing information and study contents. This accounts for 73.3% of total respondents- IN contrary, only 32 out of 120 respondents did not use Internet for web surfing or content searching. The non-users account for 26.7% of the total responses.

In Introduction part of this research study, 14 Internet service providers of ISPN were enlisted. These ISPs were taken in consideration for getting information about Internet subscription of the respondents. The following section reveals the most popular ISPs in Lalitpur according to user reviews.

Table 4.12

Most popular ISPs in Kathmandu

Internet Service Provider	Frequency	Percentage (%)	Cumulative Percentage (%)
Worldlink Communication	55	45.8	45.8
Nepal Telecom	25	20.8	66.6
Subishu Cable Network	16	13.3	80
Classic Tech Pvt. Ltd.	7	5.8	85.8
Vianet	7	5.8	91.6
Mercantile Communication	6	5	96.6
Broadlink Networks and Communication	4	3.3	100
Total	120	100	

Table 4.12 enlists the most popular Internet service providers in Kathmandu according to the responses from survey questionnaire. 55 out of 120 respondents had Worldlink Communication as their Internet service provider. It had almost 50% Internet subscriptions though several ISPs are providing services in Kathmandu and was thus the most popular ISP in Kathmandu. 25 out of 120 respondents had an Internet subscription with Nepal Telecom. This represents the second highest coverage with 25% market share. Similarly, Subishu Cable Network had 13.3% market coverage with 16 out of 120 respondents. Vianet and Classic Tech each had 7 subscriptions representing 5.8% of Internet market. Mercantile Communications was used by only 6 out of 120 respondents. Boardlink had the lowest market share with 4 respondents representing only 3.3% of Internet market according to the responses of survey.

Table 4.13

User satisfaction with ISP

User Satisfaction	Frequency	Percentage (%)	Cumulative Percentage (%)
Yes	73	60.8	60.8

No	47	39.2	100
Total	120	100	

Table 4.13 shows the general satisfaction of users with their subscribed ISP. According to users' response, 70 out of 120 respondents were satisfied with their ISP. The ratio of satisfied users accounts for 60.8%. In contrary, remaining 47 out of 120 respondents not well satisfied with their ISP which accounted for 39.2% of total respondents. In a wider view, majority of Internet users were satisfied with their ISPs. An in-depth analysis of user satisfaction with reference to SERVQUAL service quality dimensions will be done in the following inferential analysis section.

Table 4.14

Internet speed

Internet speed	Frequency	Percentage (%)	Cumulative Percentage (%)
Very Poor	3	2.5	2.5
Poor	12	10	12.5
Fair	68	56.7	69.2
Good	30	25	94.2
Very Good	7	5.8	100
Total	120	100	

Table 4.14 illustrates the Internet subscribers' review of their service quality based on speed. 3 out of 120 respondents found their Internet speed to be very poor. It represents 2.5% of total responses. Similarly, 12 out of 120 respondents representing a total of 10% found the Internet speed to be poor. 68 out of 120 respondents (56.7%) found their Internet speed to be fair enough to use. In contrast, 30 respondents found their Internet speed to be moderately good. 7 respondents found the speed of their Internet to be very good. In summary, 15% of respondents were dissatisfied with the speed of their Internet whereas an accumulated total of 30.8% evaluated the speed of Internet to be good or very good.

Table 4.15

Smoothness of Internet connection

Smoothness of connection	Frequency	Percentage (%)	Cumulative Percentage (%)
Very Poor	2	2.5	2.5
Poor	22	18.3	20.8
Fair	49	40.8	61.7
Good	40	33.3	95
Very Good	6	5	100
Total	120	100	

Table 4.15 explains the users' review regarding the smoothness of Internet connectivity. Frequent disruption of connectivity can play a major role in user dissatisfaction. Hence, connectivity smoothness is an important factor in making users satisfied and retaining them for longer period of time. According to users' review, 2 out of 120 respondents found the Internet operation to be very poor regarding smoothness. Another 22 respondents similarly reviewed the Internet smoothness to be poor. Thus, an accumulated ratio of 20.8% found the Internet smoothness to be unsatisfying and expected an improvement in the service. In contrary, 49 out of 120 respondents reviewed the smoothness of their Internet service as fair enough. This accounts for 40.8% of total responses. On the other hand, 40 respondents found the smoothness of Internet to be good. This accounts for 33.3% of total respondents who were quite satisfied and reviewed the Internet smoothness as good. Only 6 respondents representing a total of 5% found out the smoothness to be very good. Thus, 38.3% users were satisfied with the connection smoothness of Internet.

Table 4.16

Maintenance of Internet

Maintenance of Internet	Frequency	Percentage (%)	Cumulative Percentage (%)
Very Poor	11	9.2	9.2
Poor	20	16.7	25.8
Fair	56	46.7	72.5
Good	28	23.3	95.8
Very Good	5	4.2	100
Total	120	100	

Table 4.16 explains about the users' review regarding the maintenance of their Internet services from their service providers. According to the survey responses, 11 out of 120 respondents (9.2%) were very dissatisfied with the maintenance work done by their ISPs and reviewed it as very poor. Similarly, another 20 respondents were also not satisfied with the maintenance of their Internet service and evaluated it as poor. Thus, the accumulated review regarding poor maintenance service accounts for a total of 25.8%. On the other side, 56 out of 120 respondents reviewed the maintenance to be fair which accounts for 46.7% of total responses. 28 (23.3%) respondents found their Internet maintenance to be good. Only 5 respondents accounting for a total of 4.2% found their Internet service to be very prompt in maintenance and regular update.

Table 4.17

Analysis of ISP Performance Ratings

S. No.	ISP Performance Rating	N	Min.	Max.	Mean	Standard Deviation
	My ISP performs the promised services dependably	120	2	5	3.51	0.935
	My ISP performs the promised services accurately	120	1	5	3.40	0.864
	My ISP is always willing to help me	120	2	5	3.38	0.871
	My ISP is always willing to provide prompt services	120	2	4	3.17	0.714
	My ISP has skilled employees	120	2	5	3.25	0.725
	Staffs at the ISP are courteous and friendly	120	1	5	3.34	0.957
	My ISP has good reputation	120	1	5	3.17	0.973
	The staff offers a caring and individualized attention	120	2	5	3.32	0.869
	I will continue using my current ISP	120	2	4	3.09	0.722
	I will recommend my ISP	120	2	4	3.13	0.751

Table 4.17 exhibits the Likert scale analysis of respondents' perception of the overall performance of their ISPs. The table represents a bundle of survey questionnaires, to which the respondents rated the service in a 5-points Likert scale, with 1 as strong disagreement on the statement and 5 as strong agreement on the statement. The mean explains average of each statement, whereby the value more than 3 resembles that the respondent agrees on the statements. In contrary, if the mean value is less than 3, it shows that the respondent disagrees on the statement. The above table reveals that for all the questionnaires the mean review of the respondents was over 3. In case of service performance regarding dependability and accuracy (S.No. 1-2) most of the respondents were well satisfied and reviewed these service determinants with reviews 3.51 and 3.40 respectively. However, in case of promptness and reputation (S.No. 4 and 7) the mean score was lowest at 3.17. In case of long-term bonding with current

ISP and recommending it to others (S.No. 9-10), most of them were not well satisfied and reviewed with relatively lower average of 3.09 and 3.13 respectively. This is a major challenge which ISPs need to resolve in retaining existing customers as well as expanding the services to new customers. To summarize, as the mean score for all determinants was above average, it indicates that the respondents' perception towards the Internet services provided by their service provider was positive.

4.3 Inferential Analysis

According to Blaikie (2003), inferential analysis is a collection of methods for estimating the population characteristics based on sample's characteristics. In other words, this analysis method is applied for finding out patterns or relationships, both association and influence, or differences between categories or groups. This analysis methodology is used to generalize the results obtained from a random sample back to the population from which the sample was drawn. With inferential statistics, conclusions are drawn which extend beyond the immediate data alone. For instance, inferential statistics is used to infer from the sample data what the population might think or to make judgments of the probability that an observed difference between groups is a dependable one or one that might have happened by chance in this study. To summarize, inferential statistics helps to make inferences from collected data to more general conditions.

For the inferential analysis of this research study, Likert scale was used to allow the individual to express how much they agree or disagree with a particular statement with five options from complete disagreement to complete agreement. The responses could be expressed on 5 points scale with 1 being that the respondent strongly disagree and 5 being strongly agree on the statement. In reference to the responses of the participants hypothesis testing and significance of relationship were determined among different variables with the help of models like t- test, Analysis of Variance (ANOVA), Analysis of Covariance (ANCOVA) and regression analysis. The main aim of this analysis was to make inferences for the population beyond the available limited data set.

4.3.1 One Sample T-test

One sample t-test is a method of determining whether a sample mean is statically different from a known or hypothesized population mean. This test is usually done if the population variance is unknown and only sample variance is available. The following tables under this subsection illustrate this test with a hypothesized population mean of 2.5 for the Likert scale interval of 1 to 5 for reviewing user perception of Internet service quality.

Table 4.18

Analysis of Reliability of ISP

	Test value=2.5						95% Confidence interval of the Difference	
	N	Mean	SD	t-value	p-value	df	lower	Higher
Security in usage	120	3.43	0.753	13.579	.000	119	.80	1.07
Trustworthiness	120	3.34	0.761	12.109	.000	119	.70	.98
Recommendability	120	3.38	0.908	10.556	.000	119	.71	1.04

Table 4.18 represents an inferential analysis of reliability of ISP with reference to the security in usage, trustworthiness and Recommendability of the service provider. The respondents were inquired to find out in what extend do they find their Internet service provider as reliable enough in case of service quality. From the data collected, we found out the respondents' average in all three subcategories of reliability is above the hypothesized mean of 2.5, which indicated that the respondents were satisfied with the reliability of service quality of ISP. Security has been evaluated by the respondents with the highest mean score of 3.43, whereas Recommendability got a score of 3.38 and trustworthiness got the lowest grade of 3.34. Mean value of all statements ranges from 3.34 to 3.43, which indicated that there is a consistency in responses of the respondents on the specified Likert scale item. Similarly, standard deviations among above statements were 0.753, 0.761 and 0.981 respectively, which indicated a higher concentration of reviews with reference to the obtained mean value. The t-values in all cases are higher than 10 indicating a rejection of null hypothesis. The p-value obtained are .000 in all three cases which is less than the significant level

of 0.05; hence it could be concluded that reliability does have a significant association with the service quality dimension of ISP.

Table 4.19
Analysis of Empathy of ISP

	Test value=2.5						95% Confidence interval of the Difference	
	N	Mean	SD	t-value	p-		lower	Higher
					value	df		
Individual attention	120	3.00	0.944	5.803	.000	119	.33	.67
Convenience in usage during operating hours	120	3.24	0.870	9.343	.000	119	.58	.90
ISP employees' ability to address specific needs of customers	120	3.19	0.892	8.498	.00	119	.53	.85

Table 4.19 represents the participants' response towards the empathy of their Internet service provider regarding the individual attention for solving their problems, convenience in using the Internet service during the busy operating hours and employees' ability in addressing the specific needs of customers. According to the participants' responses, the average in all three subcategories of empathy is significantly above the hypothesized value of 2.5, which indicated that the respondents were satisfied with the empathy factor of service quality of ISP. Convenience on using during busy operating hours got the highest mean of 3.24 with lowest standard deviation of 0.87. In contrary, individual attention got the lowest mean of 3.0 with highest standard deviation among all three statements of 0.944. To summarize, the mean value of all statements ranges from 3.00 to 3.24, which indicated that there is a consistency in responses of the respondents on the specified Likert scale item. Similarly, standard deviations among above statements were lower

than 1, which indicated a low dispersion of responses with reference to the obtained mean value. Moreover, the p-values obtained for all subcategories are below the significant level of 0.05. Hence, the results obtained clearly indicates that empathy does have a significant association with the service quality dimension of ISP. This means that empathy is perceived good and satisfactory.

Table 4.20

Analysis of Assurance of ISP

	Test value=2.5						95% Confidence interval of the Difference	
	N	Mean	SD	t-value	p-value	df	Lower	Higher
Reliability for online transaction	120	3.50	0.820	13.36	.000	119	.85	1.15
Satisfaction of service quality	120	3.08	0.927	6.793	.000	119	.41	.74
Customer loyalty	120	3.28	0.756	11.237	.000	119	.64	.91

Table 4.20 shows the assurance of customers towards their Internet service provider with 3 subcategories. The respondents were asked to reflect their views regarding the knowledge and courtesy of employees and their ability to convey trust and confidence. From the data collected, it was found that the respondents' average is more than 3, which indicated that the respondents are very much satisfied with the assurance factor of service quality of ISP. Reliability for online transaction was evaluated by the respondents with the highest mean score of 3.50, customer loyalty whereas got a score of 3.38 and satisfaction of service quality got the lowest grade of 3.08. Mean value of all statements ranges from 3.08 to 3.50, which indicated that there is a consistency in responses of the respondents on the specified Likert scale item. Similarly, standard deviations among above statements were 0.820, 0.927 and 0.756 respectively, which indicated a higher concentration of reviews with reference to the obtained mean value. The t-values in all cases are also higher than 0 which indicates an irrelevance of null hypothesis. The p-value obtained in all subcategories were 0.000 which is less than the significant level of 0.05; hence assurance does have a significant association with the service quality dimension of ISP.

Table 4.21

Analysis of Responsiveness of ISP

	Test value=2.5						95% Confidence interval of the Difference	
	N	Mean	SD	t-value	p-value	df	Lower	Higher
Quick service delivery	120	3.30	0.846	13.36	.000	119	.65	.95
Willingness to help customers	120	3.38	0.822	6.793	.000	119	.73	1.03
Willingness to respond quickly on customers' request	120	3.16	0.778	11.237	.000	119	.52	.80

Table 4.21 represents the participants' response regarding the willingness to help customers and provide prompt service to the customers. This category was further classified into 3 subcategories for detailed study of speed of service delivery, employees' willingness to help customers and their willingness to respond quickly on customers' request. According to the analysis of users' response, it was observed that the respondents' average is more than 3, which indicated that the respondents are very much satisfied with the responsiveness factor of service quality of ISP. The statement "willingness to help customers" got the highest mean of 3.38 with a standard deviation of 0.822. On the other hand, the statement "willingness to respond quickly on customers' request" got the lowest mean of 3.16 with lowest standard deviation among all three statements of 0.778. Similarly, the statement "quick service delivery" got a mean of 3.30 and standard deviation of 0.846. To summarize, the mean value of all statements ranges from 3.16 to 3.38, which indicated that there is a consistency in responses of the respondents on the specified Likert scale item. Similarly, standard deviations among above statements were lower than 1, which indicated a low dispersion of responses with reference to the obtained mean value. The t-values in all cases are also higher than 0 which indicates no significance of null hypothesis. The p-value obtained for each subcategory is 0.000 which is less than the significant level of 0.05; hence responsiveness does have a significant association with the service quality dimension of ISP.

Table 4.22

Analysis of Tangibility of ISP

	Test value=2.5						95% Confidence interval of the Difference	
	N	Mean	SD	t-value	p-value	df	Lower	Higher
Appearance of physical facilities	120	3.33	0.747	12.105	.000	119	.69	.96
Physical facilities which are visually appealing	120	3.14	0.714	9.851	.000	119	.51	.77
Cleanliness of employees	120	3.21	0.787	9.854	.000	119	.57	.85

Table 4.22 shows the users' response with reference to tangibility of their Internet service provider. Tangibility basically includes appearance of physical facilities, equipment, personnel, and communication materials. Respondents were asked if their ISP is tangible enough in case of service quality. From the data collected, it was found that the respondents' average is more than 3, which indicated that the respondents were also satisfied with the tangible factor of service quality of ISP. Appearance of physical facilities was evaluated by the respondents with the highest mean score of 3.33, whereas cleanliness of employees got a score of 3.21 and visually attractiveness of physical equipment got the lowest grade of 3.14. Mean value of all statements ranges from 3.14 to 3.33, which indicated that there is a high consistency in responses of the respondents on the specified Likert scale item. Similarly, standard deviations among above statements lie within the range of 0.714 and 0.787, which indicates a very low dispersion of reviews with reference to the obtained mean value. The t-values in all cases are also much higher than 0 which indicates no significance of null hypothesis. The p-value obtained for each subcategory is 0.000 which is less than the significant level of 0.05; hence tangibility is perceived as good and satisfactory and it does have a significant association with the service quality dimension of ISP.

4.3.2 One-way ANOVA Test

Table 4.23

Analysis of relationship between satisfaction level and service quality dimensions

Service Quality Dimension	Satisfaction with ISP	N	Standard			
			Mean	Deviation	Minimum	Maximum
Assurance	Yes	73	3.5982	.58521	2.00	5.00
	No	47	2.7943	.58381	1.67	4.00
	Total	120	3.2833	.70300	1.67	5.00
Empathy	Yes	73	3.5205	.57463	2.67	5.00
	No	47	2.5603	.64496	1.33	4.67
	Total	120	3.1444	.76298	1.33	5.00
Reliability	Yes	73	3.6758	.59570	2.33	5.00
	No	47	2.9291	.63678	2.00	4.33
	Total	120	3.3833	.71093	2.00	5.00
Responsiveness	Yes	73	3.5479	.62699	1.00	5.00
	No	47	2.8652	.67265	1.67	5.00
	Total	120	3.2806	.72439	1.00	5.00
Tangibility	Yes	73	3.4658	.59249	2.00	5.00
	No	47	2.8511	.53301	2.00	4.00
	Total	120	3.2250	.64265	2.00	5.00

Table 4.23 shows the level of customer satisfaction with their current ISP with reference to the service quality dimensions. From the table, it can be seen, that the majority of the respondents were satisfied with their service provider. Out of 120 respondents, 73 (60.8%) stated that the service quality was meeting their expectations in consideration of SERVQUAL dimensions. Similarly, the mean scores of satisfied respondents for all service quality dimensions were in a range of 3.46 to 3.67. The standard deviation among satisfied customers also varied in a small range of 0.57 to 0.62 which shows the consistency of the user responses. Moreover, the minimum and maximum score among satisfied customers varied from 1 to 5 in Likert scale. Reliability was the most positively reviewed service quality dimension with satisfied customers with a mean score of 3.67 from a maximum possible score of 5. Empathy

and Responsiveness got similar mean score of 3.55 among satisfied customers. Most of the respondents found the tangibility of their ISP to be least satisfactory with an average rating of 3.46 out of 5 among satisfied users. In contrast, 47 respondents (39.2%) stated that the service standard was below their expectations. The mean scores of unsatisfied customers varied from 2.56 to 2.92. The standard deviation among unsatisfied customers ranged between 0.53 to 0.67 which also shows a higher consistency in the responses of unsatisfied customers. Among unsatisfied customers, empathy was the least positive rated service quality dimension with a mean score of 2.56, which means that the unsatisfied customers had issues relating to empathy factors like individual guidance, employees' ability to solve the issues and convenience of using Internet during busy operating hours.

Table 4.24

Analysis of Variance with reference to satisfaction level of respondents

	Category	Sum of Squares	df	Mean Square	F-value	p-value
Assurance	Between Groups	18.475	1	18.475	54.047	.000
	Within Groups	40.336	118	.342		
	Total	58.811	119			
Empathy	Between Groups	26.365	1	26.365	72.502	.000
	Within Groups	42.909	118	.364		
	Total	69.274	119			
Reliability	Between Groups	15.942	1	15.942	42.560	.000
	Within Groups	44.202	118	.375		
	Total	60.144	119			
Responsiveness	Between Groups	13.326	1	13.326	32.014	.000
	Within Groups	49.118	118	.416		
	Total	62.444	119			
Tangibility	Between Groups	10.803	1	10.803	33.246	.000
	Within Groups	38.344	118	.325		
	Total	49.147	119			

Table 4.24 shows the analysis of variance with reference to the satisfaction level of the respondents. The F-values for assurance, empathy, reliability, responsiveness and

tangibility were 54.047, 72.502, 42.560, 32.014 and 33.246 respectively. Similarly, the corresponding p-values for all service quality dimensions were less than the significant level of 0.05. Hence significant relationship exists between the satisfaction level and service quality dimensions. Thus, we reject the hypothesis that there is no significant relationship between the satisfaction level and service quality dimensions of ISP.

4.3.3 Cross Tabulation Analysis

Table 4.25

Cross tabulation between gender and satisfaction level of Internet users

		Satisfied with ISP			
		Yes	No	Total	
Gender	Male	Count	52	35	87
		% within gender	59.8%	40.2%	100%
		% within satisfied with ISP	71.2%	74.5%	72.5%
		% of total respondents	43.3%	29.2%	72.5%
		Count	21	12	33
	Female	% within gender	63.6%	36.4%	100%
		% within satisfied with ISP	28.8%	25.5%	27.7%
		% of total	17.5%	10.0%	27.5%
		Count	73	47	120
		% within gender	60.8%	39.2%	100%
Total	% within satisfied with ISP	100%	100%	100%	
	% of total	60.8%	39.2%	100%	

Table 4.25 shows the distribution of respondents based on gender and satisfaction with their Internet service provider. From the survey, it was found that out of 120 participants of survey questionnaire 87 respondents are male and majority of them seemed to be fairly satisfied with their Internet Service Provider (ISP). Similarly, out of total 33 females, 21 were satisfied with their ISP. In general, out of 120 total respondents, 60.8% were satisfied with their ISP while the rest of 39.2% were not satisfied with their Internet service quality. Furthermore, the chi-square value was found to be 0.698 which is more than the significance level of 0.05 and it shows that

there exists no significant relationship between occupation and satisfaction of ISP users.

Table 4.26

Cross tabulation between age and satisfaction level of Internet users

		Satisfied with ISP			
		Yes	No	Total	
Age of Respondents in years	< 20	Count	4	7	11
		% within Age	36.4%	63.6%	100%
		% within satisfied with ISP	5.5%	14.9%	9.2%
		% of total respondents	3.3%	5.8%	9.2%
	20-30	Count	48	27	75
		% within Age	64.0%	36.0%	100%
		% within satisfied with ISP	65.8%	57.4%	62.5%
		% of total respondents	40.0%	22.5%	62.5%
	30-40	Count	13	11	24
		% within Age	54.2%	45.8%	100%
		% within satisfied with ISP	17.8%	23.4%	20%
		% of total respondents	10.8%	9.2%	20.0%
	> 40	Count	8	2	10
		% within Age	80%	20%	100%
		% within satisfied with ISP	11.0%	4.3%	8.3%
		% of total respondents	6.7%	1.7%	8.3%
Total	Count	73	47	120	
	% within Age	60.8%	39.2%	100%	
	% within satisfied with ISP	100%	100%	100%	
	% of total	60.8%	39.2%	100%	

From Table 4.26 we can see that, out of 120 total respondents, 11 respondents fall under the age group below 20 years. From this age group, most of the respondents (almost 64%) were not satisfied with their ISP. On the other side, under the age group of 20-30 years, 48 out of 75 respondents were satisfied with their ISP. In the age group of 30-40, 13 were satisfied and 11 were dissatisfied. Similarly, 8 out of 10 respondents who are older than 40 years were satisfied. In consideration of the total

number of respondents 60.8% were satisfied and 39.2% were dissatisfied with the quality of Internet service. To summarize the results for whole sample population, almost two third of total respondents were satisfied with the service quality of Internet. The chi-square value was found to be 0.167 which is more than the significance level of 0.05 and it shows that there exists no significant relationship between occupation and satisfaction of ISP users.

Table 4.27

Cross tabulation between academic qualification and satisfaction of Internet users

		Satisfied with ISP			
		Yes	No	Total	
Academic qualification of Respondents	SEE or lower	Count	0	3	3
		% within group	0%	100%	100%
		% within satisfied with ISP	0%	6.4%	2.5%
		% of total respondents	0%	2.5%	2.5%
	Higher Secondary	Count	17	12	29
		% within group	58.6%	41.4%	100%
		% within satisfied with ISP	23.3%	25.5%	24.2%
		% of total respondents	14.2%	10.0%	24.2%
	Bachelor's Degree	Count	37	19	56
		% within group	66.1%	33.9%	100%
		% within satisfied with ISP	50.7%	40.4%	46.7%
		% of total	30.8%	15.8%	46.7%
	Master's Degree	Count	17	13	30
		% within group	56.7%	43.3%	100%
		% within satisfied with ISP	23.3%	27.7%	25.0%
		% of total respondents	14.2%	10.8%	25%
Above Master's Degree	Count	2	0	2	
	% within group	100%	0%	100%	
	% within satisfied with ISP	2.7%	0%	1.7%	
	% of total	1.7%	0%	1.7%	
Total		Count	73	47	120
		% of total	60.8%	39.2%	100%

Table 4.27 shows the relationship between the academic qualification of the respondents and their satisfaction level. According to the results of the survey, all the respondents with an academic qualification equivalent or lower than school leaving certificate (or SEE) were dissatisfied with the Internet service. On the contrary, almost two third of 29 respondents with higher secondary educational qualification were satisfied. Similarly, almost same proportion of 30 respondents with master's degree were also satisfied with the quality of Internet. On a close analysis of the respondents with an academic qualification equivalent to bachelor's degree level, most of the respondents were satisfied with the service quality of their ISP. 37 out of 56 were satisfied with the service they are getting from their ISP. In general, 73 out of 120 respondents were satisfied with their ISP which represents almost two third of total sample population. The chi-square value was found to be 0.143 which is more than significant value of 0.05 and it shows that there exists no significant relationship between educational level and satisfaction of ISP users.

Table 4.28

Cross tabulation between employment status and satisfaction level of Internet users

		Satisfied with ISP			
		Yes	No	Total	
Employment status of Respondents	Student	Count	2	3	5
		% within group	40%	60%	100%
		% within satisfied with ISP	2.7%	6.4%	4.2%
		% of total respondents	1.7%	2.5%	4.2%
	Student and part-time job	Count	23	17	40
		% within group	57.5%	42.5%	100%
		% within satisfied with ISP	31.5%	36.2%	33.3%
		% of total respondents	19.2%	14.2%	33.3%
	Part-time job	Count	5	2	7
		% within group	71.4%	28.6%	100%
		% within satisfied with ISP	6.8%	4.3%	5.8%
		% of total respondents	4.2%	1.7%	5.8%
Full-time job	Count	43	25	68	
	% within group	63.2%	36.8%	100%	
	% within satisfied with ISP	58.9%	53.2%	56.7%	
	% of total respondents	35.8%	20.8%	56.7%	
Total	Count	73	47	120	
	% within group	60.8%	39.2%	100%	
	% within satisfied with ISP	100.0%	100%	100.0%	
	% of total respondents	60.8%	39.2%	100%	

Table 4.28 shows that out of 120 total respondents, 2 out of 5 students not undertaking any job were satisfied with the service quality of their ISP. Similarly, almost 60% of 40 employed students were satisfied. On the other hand, 5 out of 7 part-time employed were satisfied with their ISP. Similarly, 43 out of 68 full-time employed respondents were as well satisfied with the service quality of the Internet connection. In overall, 73 out of 120 respondents were satisfied with the service quality of their ISP. Furthermore, the chi-square value was found to be 0.661 which is

more than the significance level of 0.05 and it shows that there exists no significant relationship between occupation and satisfaction of ISP users.

4.3.4 Correlation Analysis

Table 4.29

Correlation analysis among the variables of Likert Scale

Service Dimensions	Quality Assurance	Empathy	Reliability	Responsive-ness	Tangibility	
	Pearson Correlation	1	.734**	.728**	.635**	.612**
Assurance	p-value		.000	.000	.000	.000
	Pearson Correlation		1	.730**	.764**	.600**
Empathy	p-value			.000	.000	.000
	Pearson Correlation			1	.647**	.545**
Reliability	p-value				.000	.000
	Pearson Correlation				1	.666**
Responsiveness	p-value					.000
	Pearson Correlation					1
Tangibility	p-value					

Note: Correlation is significant at the 0.01 level (2-tailed).

Table 4.29 shows the correlation between the various variables of the Likert scale which has been used to measure the service quality dimensions. In the following section, we will briefly discuss the correlation and relationship between the five dimensions of the service quality as shown in the above table.

1. Correlation and relationship of assurance with service quality

- a) Empathy: There is positive relationship between assurance and empathy (0.734) and since p-value came out to be 0.000 which is lower than the significant level of 0.01, there is significant relationship between reliability and empathy.
- b) Reliability: There is positive relationship between assurance and reliability (0.728) and since p-value came out to be 0.000 which is less than 0.01, there is a significant relationship between reliability and assurance.
- c) Responsiveness: There is positive relationship between assurance and responsiveness (0.635) and since p-value came out to be 0.000 which is less than 0.01, there is a significant relationship between reliability and responsiveness.
- d) Tangibility: There is positive relationship between assurance and tangibility (0.612) and since p-value came out to be 0.000 which is less than 0.01, there is a significant relationship between reliability and tangibility.

2. Correlation and Relationship of Empathy with service quality

- a) Reliability: There is positive relationship between empathy and reliability (0.730) and since p-value came out to be 0.000 which is less than 0.01, there is a significant relationship between empathy and assurance.
- b) Responsiveness: There is positive relationship between empathy and responsiveness (0.764) and since p-value came out to be 0.000 which is less than 0.01, there is a significant relationship between empathy and responsiveness.
- c) Tangibility: There is positive relationship between empathy and tangibility (0.600) and since p-value came out to be 0.000 which is lesser than 0.01, there is a significant relationship between empathy and tangibility.

3. Correlation and Relationship of Reliability with service quality

- a) Responsiveness: There is positive relationship between reliability and responsiveness (0.647) and since p-value came out to be 0.000 which is less than 0.01, there is a significant relationship between assurance and responsiveness.
- b) Tangibility: There is positive relationship between reliability and tangibility (0.545) and since p-value came out to be 0.000 which is lesser than 0.01, there is a significant relationship between assurance and tangibility.

4. Correlation and Relationship of Responsiveness with service quality

- a) Tangibility: There is positive relationship between responsiveness and tangibility (0.666) and since p-value came out to be 0.000 which is less than 0.01, there is a significant relationship between responsiveness and tangibility.

With reference to the findings of Table 4.29 and its following discussion, we can conclude that the service quality dimensions assurance, empathy, reliability, responsiveness and tangibility are positively correlated with each other. This means, that any impact or change on a service quality dimension consequently leads to its effect on all other dimensions too. On other words, an improvement or a degradation in the quality standard of one SERVQUAL dimension follows a similar change in other remaining dimensions.

4.4 Summary of the Findings

Based on findings of the data analysis, we can summarize the results and evaluate the outcomes of our hypotheses, deciding whether to confirm or reject the assumptions taken in the hypotheses. This has been illustrated in the following table.

Table 4.30

Results of Hypotheses

No.	Hypothesis	Result
H ₀₁	There is no significant relationship between assurance and service quality	Rejected
H ₀₂	There is no significant relationship between empathy and service quality	Rejected
H ₀₃	There is no significant relationship between reliability and service quality	Rejected
H ₀₄	There is no significant relationship between responsiveness and service quality	Rejected
H ₀₅	There is no significant relationship between tangibility and service quality	Rejected

Thus, with reference to the results obtained from data analysis section and its summary from Table 4.30, the counter-proof method can be implemented to conclude the findings of this research study. As the assumptions of nonexistence of relationship between service quality dimensions and satisfaction level of customers as stated in five hypotheses were found to be false, the counter-argument method leads to the results that there exists a relationship between them. Hence it can be concluded that the service quality has a significant effect on customer satisfaction and all SERVQUAL dimensions are positively correlated with the satisfaction level of customers.

4.5 Findings and Discussion

The study found out a significant and positive relationship of service quality on customer satisfaction. It indicates that higher service quality of ISP leads to a higher level of customer satisfaction. Out of the total 120 respondents, 73 subscribers were satisfied with their current ISP by considering the five SERVQUAL dimensions. The research showed that most of the respondents (60.8%) were satisfied with their ISP during the time of data collection. Similarly, the mean scores of satisfied respondents for all service quality dimensions were in a range of 3.46 to 3.67. The standard deviation among satisfied customers also varied in a small range of 0.57 to 0.62 which shows higher consistency of the user responses. Reliability was the most positively reviewed service quality dimension among satisfied customers with a mean score of 3.67 from a maximum possible score of 5. Empathy and Responsiveness got similar mean score of 3.55 among satisfied customers. Most of the respondents found the tangibility of their ISP to be least satisfactory with an average rating of 3.46 out of 5 among satisfied users. In contrast, 47 respondents (39.2%) stated that the service standard was below their expectations. The mean scores of unsatisfied customers varied from 2.56 to 2.92. The standard deviation among unsatisfied customers ranged between 0.53 to 0.67 which also shows a higher consistency in the responses of unsatisfied customers. Among unsatisfied customers, empathy was the least positive rated service quality dimension with a mean score of 2.56, which means that the unsatisfied customers had issues relating to empathy factors like individual guidance, employees' ability to solve the issues and convenience of using Internet during busy operating hours. Although relatively higher number of respondents were satisfied with the service quality of their ISP, the critical fact cannot be ignored that a significantly large proportion of the total respondents were quite dissatisfied with current service standard of their ISPs. There is some sort of error in providing the service to the customers by the ISP which leads to declination of satisfaction level of the customers. It also shows that ISPs need to improve the service quality in gaining new customers as well as retaining existing customers. This is also the key factor for the success of the Internet service providers.

The result showed that there was no significant relationship between demographic factors like age, educational level, income level, occupation and gender with perception of service quality. Similarly, there was no significant relationship between gender, age, educational level and occupation and satisfaction level of ISP users. However, there was significant relationship between service quality dimensions like reliability, empathy, assurance, responsiveness and tangibility. So, the key finding or suggestion of this research study for the ISP companies was to keep the service quality up to the standard which would be very beneficial in getting positive response from customers, thus helping in expanding the service and meeting business goals as well.

CHAPTER 5

CONCLUSION AND IMPLICATIONS

The whole report has been divided into five different chapters. Chapter one explains about the introductory part of the study where the background and significance of this study has been described. In this chapter the present context of Internet service and importance of service quality has been analyzed in a micro level to highlight the relevance of this research. Chapter two consists of literature review and conceptual framework where the previous research studies and core findings related to the service quality and customer satisfaction were explained, the theoretical framework of the research was explained and the research gap was highlighted. Similarly, based on literature review, five hypotheses for this research were derived, on which the research was focused. Chapter three explains about the methods and design of data sampling which lead to the procedure of data collection. Chapter four describes about the data analysis and findings of the research relating to the user perception of Internet service quality.

This chapter describes the conclusion of the findings with reference to previous research results from different scholars and researchers and future implications of the study for further research projects.

5.1 Conclusion

This research showed that service quality has a positive impact on perception of service standard and customer satisfaction. Furthermore, this study revealed that there is a significant relationship between service quality dimension like reliability, empathy, assurance, responsiveness and tangibility. This finding is consistent with the findings of several previous research studies. It resembles with the conclusion of Rahman, Khan and Haque (2012), which states that the service quality dimensions like assurance, empathy, responsiveness, reliability and tangibility were found to be directly related with customer satisfaction in long term.

According to Saghier and Nathan (2013) tangibility did not have any significant impact on customer satisfaction. They concluded that the customers would prefer to

deal with human being rather than machines and tangibility has relationship but no significant effect on customer satisfaction. Our findings do not totally contradict with the outcomes of the Saghier and Nathan research, but we also found tangibility to have least significant role among all service quality dimensions for determining the perception of service quality among customers.

Similarly, in Nepalese context, our findings also resemble the conclusion of Shrestha and Ale (2019) which emphasizes a significant effect of all SERVQUAL dimensions on service quality and customer satisfaction. Bhatta and Durgapal (2016) also came to a similar conclusion that all service quality dimensions had strong correlation with each other and a direct impact on customer satisfaction. In addition, Lamichhane (2018) stated that tangibility, assurance and empathy were strongly influential in determining customer satisfaction. Our study found reliability to be most significant and tangibility to be least significant for determining user's perception and customer satisfaction. Assurance had a moderate effect on customer satisfaction. Moreover, our research study also resembles the findings of Koirala and Shrestha (2012), which stated that all service quality dimensions were crucial in determining service quality and customer satisfaction.

However, this study contradicts the findings of Agbor (2011) which states that there is no significant relationship between customer satisfaction and service quality. In contradiction to many previously mentioned research studies, Agbor claimed that service quality dimensions were independent factors to the relationship between customer satisfaction and service quality. According to Basheer (2012) tangibility was found to be highly influential in determining the overall customer satisfaction level. In contradiction, our research concludes that tangibility is the least influential service quality dimension.

5.2 Implications

The result of this study has some valuable implication for ISPs, scholars, customers as well as policy makers. This study helps to analyze the service quality of different Internet service providers and its impact on customer satisfaction. In this study, only

limited and listed ISPs have been selected. There is a lot of space for further research on different geographical locations of the country, as this research was limited within Lalitpur. As this research focused on determining the customer satisfaction by considering only SERVQUAL dimensions, future research studies can be extended to more factors to get an insight about their influence in determining the user perception of service quality.

This study has also given some valuable suggestion to the ISPs about the critical factors which should be focused majorly for improving the customer satisfaction in Nepalese context. This research shows that different service quality dimensions as leverage factor differ in their significance level as the performance indicator. Thus, ISPs should focus on improving quality standard by taking critical factors in consideration, which are highly influential in determining the user perception of Internet service quality. ISPs should focus more on developing internal strategies that can help customers to exchange feedbacks on their issues more easily and reliably. The firms should develop a good strategy targeted at using more of customer response to maximize their market performance in such a way that it yields growth opportunities.

This study provides some detailed information about the performance of current Internet service providers in Lalitpur. This study analyzed the relationship and effects of SERVQUAL dimensions and its impact on the performance of ISPs in Nepal as well as customer satisfaction. Future researcher can take all the listed ISPs in a wider geographical location as a sample to check the accuracy and actual effect of Internet performance in big cities as well as remote areas. Future researcher can also include several other service quality dimensions and explanatory variables that would help them to identify even more precisely what factor should be considered the most while talking about the service performance and customer satisfaction. This study shows that reliability, responsiveness and empathy have strong positive impact on financial performance whereas tangibility and assurance have relatively less impact on user perception of service quality standard. Hence, the ISPs should focus primarily on those factors affecting the customer satisfaction strongly. This strategy will enhance their performance level as reflected in the high positive impact on user perception of

service standard and their market performance. Furthermore, this study provides an added value to the literature about the current performance level of existing major Internet service providers in Nepal. It thus makes a significant contribution to the existing literatures in Nepal so that upcoming studies will be benefitted from this paper.

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APPENDIX

RESEARCH QUESTIONNAIRE

Please tick the appropriate box for each criteria group

PART 1: This section contains your general demographic information

Gender	Age	Academic qualification	Monthly income	Occupation
Male <input type="checkbox"/>	Below 20 <input type="checkbox"/>	SLC <input type="checkbox"/>	10k-20k <input type="checkbox"/>	Unemployed <input type="checkbox"/>
Female <input type="checkbox"/>	20-30 <input type="checkbox"/>	+2 <input type="checkbox"/>	20k-30k <input type="checkbox"/>	Student <input type="checkbox"/>
Other <input type="checkbox"/>	30-40 <input type="checkbox"/>	Bachelor <input type="checkbox"/>	30k-40k <input type="checkbox"/>	Part time job <input type="checkbox"/>
	Above 40 <input type="checkbox"/>	Master <input type="checkbox"/>	Above 40k <input type="checkbox"/>	Full time job <input type="checkbox"/>
		Above Master <input type="checkbox"/>		Student + part time job <input type="checkbox"/>

PART 2: This section examines consumer behavior and satisfaction of internet users

1. How frequently do you use Internet per day?

- Less than 1 hour
- 1-3 hours
- 3 - 5 hours
- 5 – 10 hours
- More than 10 hours

2. For what purpose do you use Internet? (You can choose more than one answer)

- Normal chatting
- Email
- Multimedia access
- Social networking
- Web surfing for content and information
- Other purpose

3. Which one is your Internet Service Provider (ISP)?

- Nepal Telecom
- World link Communication
- Subishu Cable Network
- Mercantile Communication
- Broad link Networks and communication
- Classic Tech Pvt Ltd
- Other purpose

4. Are you satisfied with your Internet Service Provider (ISP)?

- Yes
- No

5. Rank quality of your Internet Service Provider by selecting the appropriate box.

S.no	Description	Very poor	Poor	Fair	Good	Very good
1.	Speed					
2.	Smoothness in connection					
3.	Maintenance					

PART 3: Evaluate the service quality of your Internet Service Provider

1. Reliability

S.no	Description	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	My ISP is trustworthy for service delivery					
2.	My ISP is secure enough to use					
3.	My ISP is recommendable					

2. Empathy

S.no	Description	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	My ISP gives individual attention to me					
2.	My ISP is convenient to use during operating hours					
3.	My ISP employees understand specific needs of the customers					

3. Assurance

S.no	Description	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	My ISP is safe enough for payment through internet					
2.	My ISP is a very good service provider					
3.	I am a loyal customer to my ISP					

4. Responsiveness

S.no	Description	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	My ISP's employees give prompt service					
2.	My ISP's employees are always willing to help customers					
3.	My ISP's employees are never too busy to respond customers' requests					

5. Tangibility

S.no	Description	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	My ISP has modern looking equipment					
2.	My ISP has physical facilities which are visually appealing					
3.	My ISP's employees are neat in appearance					

PART 4: Evaluate the overall service performance of your Internet Service Provider

S.no	Description	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	My ISP has modern looking equipment					
2.	My ISP has physical facilities which are visually appealing					
3.	My ISP's employees are neat in appearance					
4.	My ISP is always willing to provide prompt services					
5.	My ISP has skilled employees					
6.	Staffs at the ISP are courteous and friendly					
7.	My ISP has good reputation					
8.	The staff offers a caring and individualized attention					
9.	I will continue using my current ISP					
10	I will recommend my ISP					

**PERCEPTION OF INTERNET SERVICE USERS ON SERVICE QUALITY
TOWARDS INTERNET SERVICE PROVIDERS IN LALITPUR**

A Proposal By

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CHAPTER I

INTRODUCTION

1.1 Background of the Study

According to Saadat and Soltanifar (2014), Internet is one of the most significant innovations of the 20th century. Since the development of Internet as a mean of wireless communication and electronic data transfer with the first applicable prototype in the 1960s, its progress will be remarkable (Ryan, 2013). Today, Internet has become an inevitable part of everyday life of common people as well as organizational sectors of modernized world. The purpose of the Internet, however, varies diversely and its popularity is growing at an immense rate (Ngai & Wat). In everyday life of common people, Internet is a base for social networking and information seeking (Tkacz & Kapczynski, 2009). On the other side, organizations employ it for communication, business development, data exchange and many other purposes (Tkacz & Kapczynski, 2009). For this reason, an efficient and smooth operation of modernized world amidst overwhelming complexities without Internet seems almost unimaginable.

An Internet service provider (ISP) is an institution managing all the activities regarding operation and distribution of Internet services to the public. A research of Greenstein (2001) revealed the importance and mediating role of ISP in the development of modern society. ISPs not only sell Internet services to consumers, but also maintain and constantly develop necessary applications for smooth operation, solve problems as they arise and tailor general solutions to idiosyncratic circumstances (Chiou, 2003). Furthermore, they customize Internet services to the unique needs of consumers and organizations. Besides providing subscribers with a data connection allowing access to the Internet through physical transport infrastructure, ISP may also provide related services beyond Internet access, such as web hosting, web page design and consulting services related to networking software and hardware (Saadat & Soltanifar, 2014).

In general, ISPs are commercial institutions running to generate income by charging their subscribers – whether households, businesses or governments – based on company policy or mutual contract (Perset, 2010). Many ISPs also offer bundle packages including telephone and television services. Typically, ISPs are large organizations with their own geographically dispersed networks, local points of presence and numerous connections to other such networks (Tier 1 providers usually have large telecommunications companies) (Perset, 2010). On a broader sense, Internet Cafes or Kiosks providing Internet services can also be considered as small-scale ISP, as they serve as platform for accessing Internet services (Perset, 2010).

1.2 Problem Statement

The literature on user perception of the service quality has contributed significant progress since the seminal works of Parasuraman et al. (1985, 1988). As a pioneer, Parasuraman et al. introduced and highlighted the basic idea of service quality (SERVQUAL) as the difference between a customer's expectations for a service to be used and his or her perceptions of the service received. Similarly, Saadat and Soltanifar (2014) described the confirmation/disconfirmation paradigm as a process by which consumers develop feelings of satisfaction and dissatisfaction. It involves the process of comparing the expectation based on brand attribute beliefs, attitudes and intentions with the actual experience and evaluating the experience in three main categories of confirmation, positive disconfirmation, and negative disconfirmation. To this time, many researchers and scholars have tested the validity of the modern theory of user perception from various perspectives. Numerous studies have also investigated the effect of user perception on the long-term performance of firms in various sectors of the economy.

In customer centric market, businesses compete and try to lure customers to purchase their goods and services. They primarily focus on building trust and gaining customer loyalty rather than succeeding on a one-time sale. As a result, customer's satisfaction is an important key factor and differentiating strategy for maintaining long-term customer relationship. According to Anderson and Sullivan (1993), level of customer satisfaction will decrease the perceived need to switch service provider, thereby

increasing customer repurchase and ultimately enhancing profitability of the organization. Similarly, Rust and Zahorik (1993) stated that greater satisfaction leads to repurchase. It is well established that satisfied customers are key to long term success. According to Metawa and Almosawi (1998), visionary market leaders are found to be highly customer oriented.

1.3 Objective of the Study

The primary objective of this study will be to get an insight of the customers' perception of service quality of their Internet subscriptions in Nepal and find out the level of their satisfaction regarding the service performance. In line with the primary objective, specific objectives are as follows:

- To examine the customers' perception towards service quality of ISP
- To analyze the influence of service quality dimensions on overall service quality

1.4 Significance of the Study

The research will help the organizations to identify and improve their service quality by identifying and eliminating the gap in quality, and thus, increasing the quality level of their products and services in the future. Additionally, it will help organizations in rearranging the organizational structures if needed to meet the quality expectation from customers.

The research will help to identify the gap of the customer need and satisfaction level. The quality level and reliability of the internet service provider can be measured with the help of the research. The customer must be happy with the service of the firm so that they can be retained for longer period of the time by the service provider. The addition of the value in the service will help to get the attention of the large number of new customers.

The educational level of the customers may be vital in choosing an Internet service provider. The usage level of Internet is increasing day by day and it would help to

determine the purpose of using the Internet by the customers, for instance, study, recreation or job. The study will help ISPs to increase the quality level of the service in consideration of the expectation level from the side of the customers.

The research will be handy for the betterment of ISP industry and it will encourage the customers to identify the lapse in the service and create the situation for the improvement for the service of the firm. The customers are always demanding, and the research will identify the service quality dimensions to be improved.

CHAPTER II

LITERATURE SURVEY AND THEORETICAL FRAMWORK

2.1 Literature Review

Any study will not be complete without taking a critical look at some past empirical studies in terms of the purpose of the studies, the methodology that was adopted and the findings of the studies. This is a necessary step in order to enable the researcher to see the gaps that might will be left or to get a glimpse of some recommendations for further studies that might will be reported in previous studies.

Numerous studies of Parsuraman et al. (1985) on user perception of service quality over the period of last several years have attracted the greatest attention and made the highest contribution in bringing new findings and useful results. Parasuraman et al. (1985) defines service quality as a comparison between customer expectations and perceptions of provided service and suggested mainly three themes on service quality. As conclusions of the research, they found the higher complexity bounded with the evaluation of intangible service quality in comparison to tangible product quality. The service quality perceptions resulted from a comparison of consumer expectations with actual service performance. Furthermore, the quality evaluations were not made solely on the outcomes of service, rather also involved evaluations of the processes of service delivery. The service quality dimensions were related with the satisfaction level of the customers and the service provider determining the actual performance of the firm in long term.

Zeithaml (2000) developed an e-SERVQUAL method for measuring E-service quality by considering eleven dimensions for online service quality. These dimensions are accessibility, easy for navigation, efficiency, flexibility, reliability, personalization, security, responsiveness, assurance, site aesthetics, and price knowledge. It identified four dimensions, namely: efficiency, reliability, fulfillment and privacy to form the core e-SERVQUAL scale. The study also found that three dimensions responsiveness, compensation and contact were significant only when the online customers had unresolved problems or difficulties. The service quality dimensions were effectively

used to find the performance level of a firm in long term, so that it would focus more on the customer satisfaction by improving its service quality dimensions.

Bahia and Nantel (2000) also conducted the study "A reliable and valid measurement scale for the perceived service quality of banks" and proposed an alternative measurement method of measuring perceived service quality in retail banking. It comprised of 31 items with six underlying key dimensions. These dimensions were: effectiveness and assurance, accessibility, price, tangibility, service portfolio and reliability. A sample of retail banking customers were questioned during the research in order to develop a reliable and valid scale for the measurement of the perceived service quality of bank services. The before mentioned scale was defined as BSQ (banking services quality)..

2.2 Conceptual Framework

The framework will explain about the relationship between independent and dependent variables in the study. The factors affecting the study are targeted by the theoretical framework. It explains about the dependent and independent variables used for the measurement of quality control. The perceived service quality is dependent variable, whereas the five dimensions of SERVQUAL model, namely: empathy, responsiveness, tangibility, reliability and assurance are independent variables of the research. The relationship between the dependent und independent variables will be illustrated in the figure.

Independent Variables

Dependent Variable

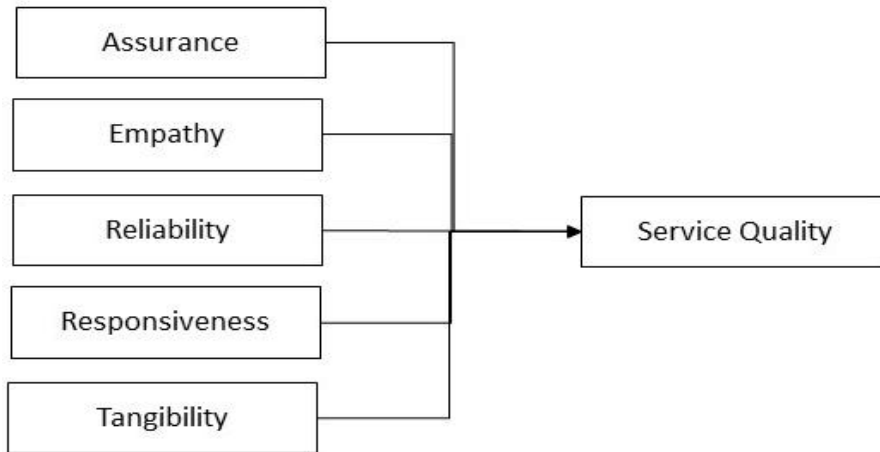


Figure: *Service quality dimension*

The customers always look for a good quality standard while getting the service from Internet service provider companies. So, the study specified the service quality and measurement of dimensions of the factors. The moderating variables are influencing factors of the quality of the service. The demographics factors like age, gender, occupation, income and education are only considered for getting detailed information of the user profiles. The relationship can be measured in the correlation method in SPSS. The speed of the Internet, the accuracy of maintenance, the personalization of the system, the location of the Internet companies, the space, the volume of the Internet, the frequency of maintenance of the Internet break-down and the customer centric approach are the factors influencing the service quality dimensions and customer satisfaction level.

Based on key paper, current research will be initiated that focuses on the ISP companies in Lalitpur. The service quality is dependent variables where independent variables are empathy, responsiveness, tangibility, assurance and reliability and income level, age group, occupation and education as moderating variables in the study. It will help to establish the relationship between these three variables for the completion of the research.

2.3 Research Hypotheses

With reference to the literature review and five core dimensions of quality service as of SERVQUAL model of Parasuraman et al. (1985), five hypotheses will be derived for the research study to evaluate the perception of service quality among Internet users in Lalitpur. Assurance, empathy, reliability, responsiveness and tangibility are independent variables, whereby perceived service quality is the dependent variable. Five hypotheses: H₁ to H₅ will be formulated for five service quality dimensions and are described as follows:

H₀₁: There is no significant relationship between **assurance** and service quality.

H₀₂: There is no significant relationship between **empathy** and service quality.

H₀₃: There is no significant relationship between **reliability** and service quality.

H₀₄: There is no significant relationship between **responsiveness** and service quality.

H₀₅: There is no significant relationship between **tangibility** and service quality

CHAPTER III

RESEARCH DESIGN AND METHODOLOGY

Research method will include research design, population and sample, nature and sources of data collection. Empathy, responsiveness, tangibility, assurance and reliability and income level, age group, occupation and education as moderating variables in the study. It will help to establish the relationship between these three variables for the completion of the research.

3.1 Research Plan and Design

This study will employ descriptive research design and casual comparative research design to deal with issues associated with the customer satisfaction among major ISPs in Lalitpur. The descriptive research design will be adopted for searching the essential data and information about factors affecting the consumers' perception of quality service towards their service providers. This study also used the casual comparative research design to establish the cause-and-effect relationship of perceived usefulness, perceived ease of use, perceived enjoyment, price and bandwidth speed with consumer's satisfaction.

3.2 Population and Sample Size

The research will be conducted inside Lalitpur with a population of around 1.5 million (United Nations, 2018). However, it will be impossible to conduct a research on whole population. So, the basic part is going through sampling of the population. The sample will consist of 120 Internet subscribers of different ISP companies. The respondents for this research will be collected through non-probability sampling technique: convenience sampling.

3.3 Data Collection Procedure

Both primary and secondary data will be used for this research study. The primary data and information necessary for the research study will be collected from

structured questionnaire survey which contains the respondents related information through tick mark questions. The survey will be conducted online and anonymously.

3.4 Method of Data Analysis

The data will be collected from the questionnaire and will be analyzed using excel and SPSS. Researcher will use descriptive analysis, demographic and inferential analysis to analyze the efficiency and the validity of the data. Following statistical tools will be used

- Demographic analysis

To analyze the influence of demographic component like gender, age, occupation, education on service quality.

- Correlation analysis

To analyze the intensity and nature of relationship between independent variable and dependent variable.

- Chi square test

To test the relationship between variable and its impact on service quality.

3.5 Validity and Reliability

The reliability and validity are one of the important tools to find out the right result for effectiveness of research. Reliability deals with the accuracy and correctness of the procedure. Similarly, validity is the extent to which a concept, conclusion or measurement is well-founded and likely corresponds accurately to the real world.

To evaluate the outcomes of the research with reference to its validity and reliability, several methodologies including cross checking, pilot testing, pre-testing and Cronbach's Alpha testing were performed.

3.6 Limitation of the study

- The study will be conducted in a small region. As a result, universality of results and outcomes of the research cannot be extrapolated to an unresearched region or the entire country.
- Several factors like limitation of budget, time limitation for data collection will be some restrictions for doing an in-depth and intensive research on the topic.
- The sampling will consist of random sampling and the survey will done online and anonym. Thus, the information will be collected through the survey, which depends on the reliability of customers feedback to the survey questionnaire, will also assumed to be correct.

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