

# **Customer Relationship Management and Customer Satisfaction in E-business Organizations in Nepal**

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## **CERTIFICATION**

We, the undersigned certify that we have read and hereby recommend for the acceptance by the School of Management, Tribhuvan University, a Graduate Research Project (GRP) report submitted by Dolma Tsering Gurung entitled “Customer Relationship Management and Customer Satisfaction in E-business Organizations in Nepal” in a partial fulfillment of the requirements for the award of Master of Business Administration in Information Technology of Tribhuvan University.

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## **DECLARATION OF AUTHENTICITY**

I, Dolma Tsering Gurung, declare that this GRP is my own original work and that it has fully and specifically acknowledged wherever adapted from other sources. I also understand that if any time it is shown that I have significantly misinterpreted material presented in SOMTU, any credits awarded to me based on that material may be revoked.

Signature: \_\_\_\_\_

Name: Dolma Tsering Gurung

Date: 28/08/2022

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## **LIST OF ABBREVIATION**

B2B: Business to Business

B2C: Business to Customer

C2C: Customer to Customer

C2B: Customer to Business

CRM: Customer Relationship Management

EDI: Electronic Data Interchange

ICT: Information and Communication Technology

IT: Information Technology

SEM: Structural Equation Model

SPSS: Statistical Package for Social Sciences

## EXECUTIVE SUMMARY

Customer relationship management (CRM) is a concept for controlling how a business interacts with its clients, customers, and potential customers. It includes coordinating, automating, and coordinating business activities using technology. CRM aims to increase revenue, profitability, and customer happiness. Similar to other nations, internet shopping has progressively gained popularity in Nepal, where there is severe rivalry among e-retailers. Therefore, the goal of this study was to identify the crucial variables that influence how satisfied clients are with e-business enterprises in Nepal. This is why the CRM's components like customer service, information quality, website design, payment system, product variety, transactional ability, response, security/privacy, and delivery have received special attention. Based on these factors, nine hypotheses of the study were developed as part of the research model.

Primary data were collected through survey questionnaire for the research purposes and 250 responses were collected regarding the same. The type of study group were existing and potential customers of various e-commerce organizations who use do online shopping from different online portals all over Nepal. It was found that most respondents were economically active people of age group 26-35 years has highest percent using various e-commerce sites for online shopping and services. The data collected through survey questionnaire was analyzed using Pearson's correlation coefficient and regression analysis in SPSS.

The findings revealed that there are positive significant relationships between all independent variables and dependent variable i.e., customer satisfaction. The probability of F-stat is 0.000 which is less than 0.001. Hence, we can conclude that there is significant impact of independent variables on the dependent variable. The Security/Privacy has the most significant effect on Customer Satisfaction with regression coefficient value of 0.349. This is followed by Response with value of regression coefficient 0.160, transaction ability with coefficient value of 0.155 and so on. This analysis also indicated that there is very less impact of customer service on customer satisfaction in e-business organizations with value of regression coefficient 0.015.

# CHAPTER I

## INTRODUCTION

### 1.1 Background of the Study

E-business is a technology that helps us improve our business operations. It includes of both internal organizational processes—such as those involving human resources, finances, and administrative systems—and outward processes, such those involving sales and marketing, the provision of goods and services, and interactions with customers. Technology-driven e-business is utilized to alter the fundamental principles of many firms. E-business is a strategy that links different firms to make internal and external processing systems more efficient and flexible, connected to partners and suppliers, and so they can meet the demands of customers (Dhillon, R. & Kaur, S., 2012).

E-business is the method and strategy for fusing corporate motivations and goals with technological motivations and information services, particularly those utilizing the Internet. Profitability and sustainability are significantly impacted by the majority of a company's front and back-office applications that are interwoven to come from an all-encompassing data processing data information management system. These motivating factors are altering how many firms define their basic principles from the ground up. The e-business modifications have an impact on values such as service speed, convenience, personalization, and cost. New business concepts understand that marketing and marketing systems give insight into client demands. Additionally, marketing systems assist managers in scanning their surrounding commercial environment to make it easier to see potential future prospects. Customers and marketing go hand in many firms' vision and strategy. It may be claimed that a company should embrace the processes, methods, and the execution of a Customer Relationship Management (CRM) project in order to prosper on an e-business. A source of businesses going back to the fundamentals is the efficient management of client interactions through the use of automated systems like e-CRM has added value for the client (Dhillon, R. & Kaur, S., 2012).

We may define e-business or e-commerce as the infinite availability of technology-related goods and services, businesses from every industry conduct business online. E-business networking may

be advantageous for all corporate operations, including sales and marketing, ordering and distribution, manufacturing, innovation, and technology. The common e-business organizations in Nepal are Daraaz.com, Hamrobazar.com, Sastodeal.com, Meroshopping.com, etc. The most important benefit of e-business is when several of these tasks are integrated.

Electronic business (e-business) can assist enterprise in the following ways:

- Minimize costs and transaction time.
- Enhance internal and external operations which in turns save time and money.
- Simplify the administration of the internal and external supply chains.
- Through a website, you may advertise, promote, and sell anywhere in the globe at any time.
- Boost relationship management, communication, and customer service.
- Compete against companies of all sizes on a worldwide scale with your website without opening up offices abroad.
- Beneficial for marketing and sales: a website provides all the data needed to conduct business, including the organization's address, phone number, and list of goods and services.
- E-business can help us compete with much larger companies or businesses that offer comparable services. (You, 2014).

Customer relationship management (CRM) is defined as the mixture of activities, techniques and technologies that firms adopt in order to coordinate and evaluate customer interactions and data throughout the customer lifecycle. The objective is to strengthen interactions with customers in order to promote client retention and increase sales. CRM systems gather information on customers from various points of contact between them and the business, such as the business's website, its phone number, live chat, mailings, promotional items, and social networking sites (Chou, W., & Ehrens, T., 2020).

Nowadays, we are continuously bombarded with acronyms in the business and technological worlds; e-CRM is a relatively new addition that uses technology to integrate and synchronize corporate operations like sales and marketing, customer service and support. e-CRM typically refers to the activities that assist organizations in establishing and maintaining connections with customers (Verma, 2012).

It is currently practically difficult for firms to expand and improve their operations in the absence of internet and by depending solely on conventional business methods. Whether they work for B2B or B2C enterprises, it is imperative that they keep up with emerging technology and adjust to eCRM.

In essence, eCRM systems include unique characteristics that keep track of customer-business interactions linked to internal workflows across several domains for various operational and analytical purposes. It controls consumer engagement across all types of channels, i.e., all types of digital media, using a single set of data and the company's specified business standards. Electronic CRM now has become an important survival requirement rather than a means to spice up competition. eCRM uses a variety of technological techniques (Spec, 2015).

The ultimate objective may be viewed as being achieved by reaching out to every client and connecting with them on a personal level. By sustaining customer relationship management, the numerous businesses and organizations across the world are primarily concentrating on increasing customer happiness. In this study we have found out the influence of various factors of CRM on the customer satisfaction in e-commerce organization in Nepal. The independent variables are Customer Service, Information Quality, Website Design, Payment System, Product Variation, Transaction Ability, Response, Security/Privacy and Delivery. Customer Satisfaction is the dependent variable of this study.

Customer satisfaction is used as an indicator for how well an organization's product performs in comparison to what customers anticipate. Customer dissatisfaction results when the performance of the product falls short of what the customer had hoped for. The consumer is satisfied if the performance meets their expectations. When performance meets or surpasses levels of expectations, the consumer is said to be extremely happy and satisfied. Customer satisfaction is determined by a cognitive and emotive evaluation in which the performance as actually viewed is contrasted with some benchmark. By meeting client demands and wants through web-based services, the internet platform gives businesses new chances to enhance customer services and achieve a competitive edge. Therefore, it is possible to establish that a key component influencing long-term partnerships is customer pleasure (Sattari, 2007)

## **1.2 Statement of Problem**

E-commerce has been more popular in Nepal in recent years to a greater extent. People are switching from traditional business to digital business, which is the major cause of this. E-commerce is flexible, safe, and time-saving. This is because websites enable us to choose goods and services from anywhere. We can also use online banking or one of the many e-wallets to make the payment. We cannot imagine doing business online without keeping up with adequate e-CRM due to its significant influence on e-business or e-commerce.

Lack of proper plans and strategies, not thinking of customer perspective and failing to involve end users are some of the major problems seen in e-commerce in Nepal. To satisfy the customers we have to make customer relationship management effective. The CRM of an e-commerce organization can be made effective when it considers the various factors of CRM. Though e-commerce is widely spread in the Nepalese society, there are many problems regarding the Customer Relationship Management and Customer Satisfaction in e-business organizations of Nepal.

As mentioned in a case study of Omantel and Ooredoo company by Michael on the topic 'Impact of Customer Relationship Management', the general problems faced by e-commerce organizations throughout the world including Nepal (Michael, 2017) are as follows:

- Security and privacy are the main reason to accept the new technology, means that in the country like Nepal, most of the e-business organizations don't adopt the highest secure system and their infrastructures are not that good enough to provide security and confidentiality.
- Lack of computer literacy and internet accessibility. Because of the low education literacy rate, people face difficult to adopt mobiles and e-commerce. That is why adoption of new technology and services is difficult for the customers.
- lack of proper and effective government policies and regulations for the e-commerce organizations in Nepal
- Broken and slow internet connection means that there is no stable internet service available, and mostly the internet service is available to the city's areas only.

- Network connection costs for customers as well as service providers is very high. Network connection is vital for e-commerce. There is problem of errors in transactions and the maintenance of IT equipment are also very expensive.
- Problem of defective piece and unexpected products. There is no provision of return once the payment is made in e-commerce.
- Concerns about data and network security as well as privacy issues make consumers lose faith in businesses
- The products and services are not delivered on time. Customers also donot want to pay extra for the shipping.

### **1.3 Research Questions**

Based on the problem statement, a research gap has been identified. After the identification, major objectives of this research were stated. Thus, research questions mentioned below are on the basis for explanatory research design

- What are the different factors of Customer Relationship Management in e-business organizations in Nepal?
- How the various factors of CRM affect Customer Satisfaction in e-business organizations in Nepal?
- What are the responses of customers on services provided by e-commerce organizations in Nepal?

### **1.4 Research Objectives**

Specifically, the objectives of the study are as follows:

- To identify the different factors of Customer Relationship Management in e-business organizations in Nepal.
- To analyze the influence of those factors of CRM on Customer Satisfaction.
- To examine the views and perceptions of the customers on services provided by e-commerce organizations in Nepal.

## 1.5 Research Hypothesis

(Irantaj, G., 2018) did a case study to look into the main elements that influence the degree of client satisfaction in Iran's most well-known B2C e-commerce site, Digikala Company. The factors of website design, quality of information, website quality, delivery services, security/privacy, as well as faith, were therefore highlighted. In the Digikala B2C e-commerce platform, it was discovered that the information quality of the online shop had a favorable impact on the degree of consumer satisfaction. On this basis we have this hypothesis as:

H1: There is direct link between Information quality and customer satisfaction in e-business organization.

One aspect of website quality that may be used to evaluate how clients feel about an associated e-store and directly affect their pleasure with online purchasing is website design (Irantaj, G., 2018). From this study it has been determined that the website design of the e-store has a favorable impact on the customer satisfaction level in Digikala B2C e-commerce system. On this basis we have this hypothesis as:

H2: There is significant relationship between Web site design and customer satisfaction in e-business organization.

The quantity or range of a retail store's product selection is referred to as "product variety" according to (Chang, 2011). He in this study explored how customer preferences and decisions are impacted by product diversity. Although the direction of this effect is debatable, he came to the conclusion that the product category in an online store influences perceived variety because an appropriate categorization makes it easier and more enjoyable for customers to navigate the website, which improves attitudes toward the online retail store and raises purchase intentions. Having a wider selection of products increases customer happiness since it increases the likelihood that their preferences and the available choices will coincide (Chang, 2011). So, we can say that product variation is positively related with the customer satisfaction as mentioned in the hypothesis below.

H3: There is significant relationship between Product variation and customer satisfaction in e-business organization.

E-commerce services including e-commerce transactions, payments, speedy delivery, and marketing may see significant development as a result of the widespread and regular usage of e-

commerce by businesses and customers. The growth of these e-business services mainly e-commerce transaction ability can help enterprises and consumers to apply ecommerce more efficiently. (Lu, 2019) analysed and concluded that e-commerce services or e-commerce transaction ability positively affects customer satisfaction based on which we can create the hypothesis as:

H4: There is significant relationship between Transaction ability and customer satisfaction in e-business organization.

(Nasimi, 2018) observed in their research that compared to consumer trust, service feedback has a greater impact on customer satisfaction. It means that the customer view that they may express their thoughts, suggestions, and complaints to the firm is greatly influenced by the feedback services offered by e-commerce business websites. With these complaints the businesses improve their customer services which in turn leads to satisfaction of the customers. Hence the below hypothesis was made based on this study.

H5: There is significant relationship between Response and customer satisfaction in e-business organization.

Security and privacy denote to the protection of the online shopping environment against hacker assaults, credit card fraud, delivery risk, bank information exposure, after-sale services, and the protection of individual privacy, among other things. The use and disclosure of visitors' and customers' personal information to third parties without their consent is one of the causes of this serious issue (Irantaj, G., 2018). From this study the researcher found that in the Digikala B2C e-commerce platform, the security and privacy of the online store have a significant impact on the degree of client satisfaction. Based on this case study we have the hypothesis as:

H6: There is significant relationship between Security/Privacy and customer satisfaction in e-business organization.

(Sanyal, 2019) in the paper titled 'Factors Affecting Customer Satisfaction with Ecommerce Websites – An Omani Perspective' illustrated the relationship between the CRM factors and customer satisfaction. The study identified and examined key variables influencing consumer satisfaction in Oman's online shopping and e-commerce websites. It showed that the key elements that have a favorable impact on consumer satisfaction are price, ease of use, safety and security,

and the availability of a variety of payment alternatives. Based on this case study we have the hypothesis as:

H7: There is significant relationship between Payment system and customer satisfaction in e-business organization.

The procedure begins with placing orders for consumers' desired items and concludes with them receiving the goods or services they ordered, and which involves order receipt, shipment, delivery time and flexibility, among other things. It is one of the primary after-sale considerations. Every consumer wants to acquire the ideal product or service at their chosen location at the most affordable price on time. (Irantaj, G., 2018) did a case of the most well-known B2C e-commerce platform in Iran, Digikala Company and underwent an investigation to determine the major variables that influence the degree of client satisfaction. The degree of consumer satisfaction in an e-commerce platform is positively impacted by the store's ability to fulfill orders, according to the author's analysis. Based on this case study we have the hypothesis as:

H8: There is significant relationship between Delivery and customer satisfaction in e-business organization.

(Nasimi, 2018) did a study to identify the e-commerce factors that influence consumer satisfaction, trust, and e-commerce customer loyalty. The results of the correlation and regression analysis led to the conclusion that the quality of the service information has a significant impact on customer satisfaction. Customer happiness is strongly influenced by service information quality, while customer trust is not much affected. Customers will be pleased with online purchasing if the service is of greater quality. Thus, the hypothesis below is made based on this study.

H9: There is significant relationship between customer service and customer satisfaction in e-business organization.

## **1.6 Significance of Study**

The study has helped people to know about the evolutions and models of e-business. This has identified the various factors of CRM that affect customer satisfaction in e-business organizations in Nepal. It also provided us an insight of the various challenges on maintaining CRM in the e-commerce firm in Nepal.

From this study we knew the various e-commerce website and companies in Nepal. Also, this study described the status of CRM and customer satisfaction in those e-commerce companies. The detail analysis of customer relationship management and customer satisfaction in e-business provided the basis for the new researchers who want to carry out other related papers/study. This study has provided us with information regarding ‘Which factors of CRM to focus more in order to satisfy the customers.’

The research will help the students, scholars and other researchers who may be interested in understanding the impact of variables of CRM on customer satisfaction in e-commerce organizations.

### **1.7 Limitations of the Study**

The research has attempted to explore the relationship between various factors of CRM and Customer Satisfaction in e-commerce organizations in Nepal. Research findings were made by suitable methods and despite the study; there are some noticeable limitations of the study. The limitations have been listed as follows:

- The study has a geographic limitation as it covers only customers of IT organizations in Nepal.
- The responses of the respondents vary through questionnaires.
- Samples are taken randomly and human perceptions may vary according to the situation.
- The study is mainly relied on primary information and statistics collected through self-administered questionnaires.
- There might be error in the response because of the unawareness of the respondents, hesitation and misinterpretations.
- The study has been done with limited volume of population sample and findings of the study cannot be fully generalized, as study that is more rigorous.

## **1.8 Organization of the Study**

Introduction, Literature Review, Research Design and Methodology, Results Analysis and Discussion, Conclusion and Implications are the five chapters that make up the proposed study.

### **Chapter I: Introduction**

The history of the study, the problem statement, the goal of the study, the research questions, the research hypothesis, the importance of the study, the constraints of the study, and operational definitions are all introduced in the first chapter.

### **Chapter II: Related Literature and theoretical framework**

This chapter covers a review of the literature, and it incorporates the conceptual review of it. This chapter provides a comprehensive review of the theoretical and empirical literature. It explains the relationship between every variables of CRM and its impact on the customer satisfaction. It discusses the selection criteria for each piece of literature and how each one contributed to the development of the conceptual framework and problem statement for the study.

### **Chapter III: Research Methods**

This chapter discussed the various strategies and procedures used to carry out the study. It essentially explains the methodology utilized for the study, the data processing and analysis process, the techniques used to collect data from the respondents, and the research design that was employed.

### **Chapter IV: Result and Analysis**

This chapter featured an examination of the data that were presented and collected via study. This chapter analyzes the degree of link between the several independent factors and the dependent variable chosen for the study. Tables and the study's findings are also included in this chapter.

### **Chapter V: Discussion, Conclusion, and Implications**

This chapter concludes by summarizing the whole research findings and providing relevant suggestions based on the study's findings. Additionally, a bibliography and an appendix are provided at the end of the research project.

## **CHAPTER II**

### **RELATED LITERATURE AND THEORETICAL FRAMEWORK**

#### **2.1 Electronic Customer Relationship Management**

A sector of the economy known as "electronic commerce" involves the exchange of goods and services using electronic networks like the Internet and other computer networks. A few of the technologies utilized in electronic commerce include mobile commerce, electronic money transfers, supply chain management, Internet marketing, online payments, electronic data exchange (EDI), systems for inventory management and automated data gathering systems. The World Wide Web is often used in modern electronic commerce at least once over the course of a transaction, while it may also include other technologies including e-mail, mobile devices, social media, and telephones (You, 2014).

Customer relationship management (CRM) is a concept for controlling how a business interacts with its clients, customers, and potential customers. It includes coordinating, automating, and coordinating business activities using technology. CRM aims to increase revenue, profitability, and customer happiness. Many firms employ a collection of tools, technology, and procedures to support the customer relationship in order to increase sales in order to achieve CRM. CRM is therefore a strategic business and process issue as opposed to a technological one (Dowling, 2002). Since satisfied customers operate as free advertisement for the business, the importance of customer happiness cannot be understated. According to the company's objectives, events, and procedures, it is essential to place the customer at the center of the enterprise. In actuality, selling to current clients is simpler and more effective than seeking out new ones. Organizations are developing plans to secure customer retention and teaching staff to be more customer- and service-focused (Mohsan, 2011).

CRM has been a significant commercial goal in recent years. Leading service companies now depend on CRM to survive rather than just utilize it as a strategy to achieve a competitive edge. The building of relationships that can be sustained in the face of the numerous inducements to switch service providers is considered as a technique of generating a lasting competitive advantage as marketplaces grow more and more competitive. Numerous professional services, such as banking and hospitality, are evaluated and compensated based on the customer connections they

oversee. It's important to note the rising trend of online shopping or e-commerce in Nepal. Ecommerce enterprises have a tremendous chance to expand and sustain their businesses during this time of lockdown. E-commerce businesses have lately sprung up in great numbers in Nepal. Even if there are many ecommerce businesses, only a handful of them have become well-known, while other ecommerce platforms aren't even acknowledged. Many new e-commerce businesses are launching as a result of how simple it is to enter and leave the industry, and many of them are struggling to thrive. Despite being the simplest and most intelligent business strategy, there is a significant likelihood of failure because of the unprecedented risks and inability to manage CRM (Why Ecommerce Companies Fail In Nepal ?, 2021).

## **2.2 Evolution of e-CRM**

ECRM has evolved over time. The first computers used to store customer data were created in the middle of the 1980s, but it wasn't until the late 1990s that the CRM software industry really began to take off. Thus, CRM has only been around for 20 years. Contrarily, CRM has a long history that dates back thousands of years. CRM emerged alongside commerce. Because the human factor has always been so important in business, traders and companies have always given customer relations a lot of thought.

### **The 1980s - Customer Relations in the Computer Age**

The 1980s were the heyday of computers. Organizations are starting to use microcomputers, sometimes known as PCs or personal computers. Around the middle of the decade, client-server architectures appeared, making it feasible to build networked computer systems. The first computerized databases were created as a result of this technological revolution.

At this time, the first Contact Management system—the forerunners of contemporary CRM—was created. The majority of the time, firms or salespeople employed this technology in their door-to-door marketing and sales efforts. They make it easier to retrieve client information.

### **The 1990s - The Birth of Modern CRM Software**

In the middle of the 1990s, the phrase customer relationship management first appeared. There is a debate over its paternity. Some credit Thomas Siebel, the founder of Siebel Systems and creator of the dominant CRM system of the 1990s, while others credit Gartner.

The advent of sales force automation may be dated to the mid-1990s (SFA). At the prospecting stage in B2B, their features assisted in rationalizing and streamlining a few of the sales forces' activities. Additionally, the first Contact Center management system that controls the post-sale process is also visible.

#### The 2000s - CRM in the age of the Internet

While this is happening, more and more businesses are finding that CRM may help them generate more income by enabling deeper customer relationships and a better knowledge of their needs.

The launch of Salesforce, a CRM platform that is entirely online, occurred in 1999, a significant year in the history of CRM. The transition from CRM to the Cloud is a significant event that will indelibly highlight CRM's success. Early in the new millennium, we started using the term "eCRM" to describe CRM systems that integrated the administration of web interaction points.

A brand-new group of products called "Marketing Automation" that aimed to automate some aspects of marketing tasks took off in the middle of the 2000s. The HubSpot platform, which establishes inbound marketing tactics and builds automated relationship scenarios, was introduced in 2005. Another significant change was the introduction of social media and the rise of social CRM at the end of the 2000s. Major media organizations utilized Twitter to communicate with their audience directly between 2008 and 2009.

#### The 2010s - an acceleration of CRM transformations

The creation of the SaaS model, which was supported by a new economic model based on subscription, was the first event that defined the beginning of the 2010s. A new dimension in B2C is integrated into CRM techniques at the same time as CRM is made available to small and medium-sized organizations. The growth of the CRM system has been accelerating in recent years. By utilizing the most recent communications technology to allow meetings between collaborators like buyers and suppliers, the influence of COVID-19 has converted all ECRM into virtual sessions (Oanh, 2021).

A relationship may be thought of as having two stages: luring the customer and then developing and maintaining the connection through time to meet the social and economic goals of both sides. Customer connection marketing is the first stage of "attracting", "forming," or "creating," and it focuses on fostering or building a long-term relationship between a service provider and a client for the benefit of both parties. Building networks and connections while promoting engagement

are the goals of relationship marketing. Customer relationship management is the second stage, where the service provider tries to keep and improve connections with clients and keep them as customers (Swartz, 2000).

According to the CRM philosophy, a company should prioritize keeping relationships with its markets. CRM has been effectively applied by banks, such as Egg Plc, Europe's most well-known Internet bank with 2.9 million customers. Egg Plc uses a CRM strategy to sustain client connections by putting into practice a number of tactics, including as a customer data warehouse and increased cross-channel communication. The bank then said that it had successfully acquired and retained 340 000 clients, and that its operational profit had increased by 300 percent in the first half of 2003 (Rootman, 2007).

### **2.3 Review of related Studies**

Nowadays, the use of e-CRM in various e-commerce businesses is expanding globally. In order to better understand and evaluate customer interactions, businesses require new tools and technologies. These tools and technologies might be investigated by looking at the customer from the perspective of how effectively they are integrating the value generated by multiple service providers. For the purpose of mutual value creation, a dualistic approach to communication between the client and service provider is being used. Based on an analysis of several publications from prestigious journals, CRM may be divided into four main branches: operational, analytical, collaborative, and strategic. Strategic CRM refers to the systematic examination and utilization of customer information as a platform for marketing management. CRM analytics entails analyzing data for market effectiveness in a variety of methods. CRM that is collaborative refers to the coordination of several communication channels utilized as a communication strategy, including as websites, email, and self-service. For front office tasks like sales, service, and support, operational CRM is offered with ICT (Information and Communication Technologies) based assistance. Sales employees can use this support when speaking with customers (Kampani, N. & Jhamb, D., 2020).

In order to demonstrate the effect of customer relationship management on customer satisfaction, which eventually results in customer loyalty, Dr. Zakaria Ahmad Mohmmad Azzam, Associate Professor, Marketing Department, Zarqa University, Jordan, conducted a case study in banks in Jordan. According to the study, customer happiness is a result of a variety of factors, including

service quality, client databases, resolving customer issues and complaints, bank staff conduct, the physical atmosphere of banks, and interactions between banks on social media. Customer satisfaction is the dependent variable, while the components of customer relationship management were the independent variables (Azzam., 2014).

In 2013, Choi Sang Long, Faculty of Management, University Technology Malaysia, Johor, Malaysia, wrote a further work. This study looked at how customer relationship management (CRM) components affected customer loyalty and satisfaction. One of the crucial tactics that businesses may use to increase their competitive edge is CRM. The research assesses four essential CRM components: staff behavior, customer service quality, relationship building, and interaction management. In Tehran, Iran, a department store was chosen for the study's location. The study used a quantitative methodology and relied on 300 participants. Analyzing multiple regression helps us understand how the variables are related. The results demonstrate that employee performance greatly influences and contributes to customer satisfaction (Long, 2013).

Researchers Assad Naim Nasimi, Rashid Naim Nasimi, and Rana Abdul Basit conducted research and published a study paper titled "Factors Affecting E-Commerce Customer Loyalty in Pakistan." E-commerce has a lot of different elements. The fact that every aspect of e-marketing benefits the company and its expansion is a really favorable phenomenon. Previous empirical research have demonstrated that when customers are satisfied, e-business success is likely to follow. The study's primary goal is to look at the elements that affect customer loyalty in Pakistan's twin cities. Islamabad and Rawalpindi are the only cities included in the research. It employed causal analysis to determine the factors in e-commerce that influence consumer happiness, trust, and e-commerce customer loyalty. The respondents' responses were gathered using a five-point Likert scale, from strongly disagree to strongly agree, to determine the statistics. The survey's scale dependability analysis is also carried out by determining the Cronbach's alpha value. The results of our study demonstrate that customer loyalty is significantly quantitatively impacted by both customer satisfaction and customer trust. Additionally, the quality of the user interface, the information provided by the service, the perceived level of security, and the feedback received from the service have varied but very important effects on the loyalty of e-commerce clients. The findings have significant practical ramifications, especially for Pakistani e-commerce service providers. It helps business managers comprehend the fundamentals of e-commerce so they can concentrate on increasing online consumers' pleasure, trust, and loyalty, which improves their e-

commerce services and achieve organization goal. Additionally, the B2C e-commerce interface, the accuracy, security, and feedback services have a significant impact on customer happiness, confidence, and loyalty.

Additionally, the study paper's reference was the publication by Giti Irantaj and Farid Huseynov. "Factors Influencing Customer Satisfaction Level in an E-Commerce Platform: A Case Study Analysis of Digikala in Iran" was the subject of the essay. The main determinants of consumer satisfaction were examined in this study at the renowned B2C e-commerce site in Iran, Digikala Company. According to the poll, there is a strong correlation between customer happiness and the layout, usability, accuracy of the content, security, and privacy of the website. Security and privacy exert a bigger effect than the other five of these important elements. This study concludes by arguing that Iranian e-retailers and e-commerce service designers may make use of its results to understand how to raise customer satisfaction levels and, as a consequence, obtain a competitive edge.

(Sanyal, 2019) in their study entitled 'Factors Affecting Customer Satisfaction with Ecommerce Websites – An Omani Perspective' demonstrated the association between the CRM elements and customer satisfaction. This study closely resembles my findings in many ways. This study identified and examined the critical variables influencing Oman's online shopping behavior and consumer satisfaction with e-commerce websites. It shown that the key elements that have a favorable impact on consumer satisfaction are price, ease of use, safety and security, and the availability of a variety of payment alternatives.

## 2.4 Empirical Review

**Table 2.1:**

*Summary of empirical studies on the relationship between CRM and Customer Satisfaction in e-commerce organizations*

<b>Authors</b>	<b>Major Findings</b>
(Ellatif, M.M. & Darwish,N.R., 2010)	Evaluating the impact of e-CRM on customer satisfaction is crucial since for the majority of businesses, implementing e-CRM is a costly investment project. The multi-level, multi-criteria, and cluster technique are the foundation of the suggested way to measuring customer satisfaction. The impact of e-CRM on customer satisfaction is also evaluated and analyzed using a proposed assessment methodology, and lastly, a case study is performed to clarify and validate the suggested technique.
(Gong, J. & Yoo, I.S., 2013)	Based on DeLone and McLean's IS success model, this study looked at how the three external quality factors—system quality, information quality, and service quality can impact client satisfaction and trust. The findings demonstrated that system and service quality had a significant impact on Chinese customers' satisfaction with e-banking.
(Long, 2013)	This study looked at how customer relationship management (CRM) components affected customer loyalty and satisfaction. The research assesses four essential CRM components: staff behavior, customer service quality, relationship building, and interaction management. In Tehran, Iran, a department store was chosen for the study's location. The study used a quantitative methodology and relied on 300 participants.

	The results demonstrate that staff conduct greatly affects customer loyalty and satisfaction.
(You, 2014)	This survey examined whether or not internet buying in China has altered the traditional retail business model. This essay offers some insights on the relationships between online shopping and customers' choices to purchase there or not. With the use of this information, internet marketers and retailers can create effective market strategies, upgrade technology, and choose the right marketing tactics to keep their existing clients and draw in new customers.
(Hoang, 2017)	The purpose of the study was to investigate and evaluate how, from a customer's viewpoint, the E-CRM influences customer satisfaction and confidence in electronic commerce. Live chat and e-service quality in E-CRM are discovered to have a direct impact on a customer's level of satisfaction with a business in e-commerce, which also has an impact on trust.
(Nasimi, 2018)	The study helped the company managers understand the fundamentals of e-commerce so they can concentrate on increasing customer pleasure, trust, and loyalty, which in turn improves their e-commerce offerings and commercial performance in two cities in Pakistan. Customer happiness, trust, and loyalty in online buying are also significantly influenced by B2C e-business link, the grade of the information, security, and feedback systems.
(Irantaj, G., 2018)	The main determinants of consumer satisfaction were examined in this study at the renowned B2C e-commerce site in Iran, Digikala Company. According to the poll, there is a strong correlation between customer

	happiness and the layout of the website, usability, accuracy of the content, security and privacy.
(Sanyal, 2019)	This study identified and examined the critical variables influencing Oman's online shopping behavior and consumer satisfaction with e-commerce websites. It shown that the key elements that have a favorable impact on consumer satisfaction are price, ease of use, safety and security, and the availability of a variety of payment alternatives.
(Durai, 2017)	In e-commerce business contexts similar to traditional business environments, customer happiness has been acknowledged as a significant component determining long-term interactions between enterprises and customers. This study aims to determine how elements of electronic customer relationship management, such as website usability, content quality, and website quality, affect customer satisfaction.
(Kampani, N. & Jhamb, D., 2020)	With the integration of online sales and marketing, e-commerce has become a practical tool for businesses to serve clients. Through a survey of the literature, this research aimed to analyze the idea of e-CRM and the numerous approaches used to create its practices and applications for fostering customer relationships. The study has significant significance since it demonstrated the connection between several e-CRM parameters and consumer satisfaction in internet shopping.
(Nguyen, 2020)	This study looked at the variables that influence Vietnamese internet buyers' propensity to repurchase goods and services. The author looked at how responsiveness, trust, convenience, delivery,

	<p>information quality, and perceived website usability affected consumer satisfaction and desire to make another purchase using both qualitative and quantitative methodologies. The findings showed that of the parameters examined, perceived website usability, information quality, delivery, and convenience have the greatest effects on consumer satisfaction.</p>
<p>(Gang, L., Shaoqing, F. &amp; Zichun Y., 2020)</p>	<p>This empirical research examines how online customer reviews and online transactions are handled. According to the research, a seller's response to online customer evaluations, particularly unfavorable reviews, significantly boosts sales. In the connection described above, seller's product price and product heterogeneity both have moderating effects. Therefore, vendors should actively engage in online social discourse and integrate into online social networks. Pricing and product diversity tactics are crucial components of the networking process for sellers.</p>
<p>(Goranda, 2021)</p>	<p>This study examined customer loyalty, satisfaction, and CRM aspects in an agriculture e-commerce company. In this study, convenience sampling was employed to pick the quantitative research. The online poll used a structural equation model (SEM) to analyze data from 232 respondents who were dissatisfied with the service in Jabodetabek. According to the SEM findings, CRM significantly affects consumer happiness and satisfaction with consumer loyalty. CRM, on the other hand, has no discernible impact on customer loyalty.</p>

## **2.5 Research Gap**

According to the various literatures, it has been found that there have been few studies under the topic: Relationship between various factors of CRM and Customer Satisfaction in e-commerce companies in Nepal and outside of Nepal. Those few literatures are those related to relationship between e-CRM and Customer Satisfaction in banks or online shopping. There have been few published or recognized documents in regards of Relationship between various factors of CRM and Customer Satisfaction in e-commerce companies. The study addressed the gap by determining the relationship between a range of factors of Customer Relationship Management and Customer Satisfaction in e-commerce organizations in Nepal.

## **2.6 Conceptual Framework**

Under this section a conceptual framework was developed after referring to various literatures and papers on relationship between CRM and Customer Satisfaction in e-business organizations. The conceptual structures were used to analyze the results of the research. The conceptual framework for this research was extracted from a research paper by Nidhi Kampani and Deepika Jhamb which is titled as “Analyzing the role of e-CRM in managing Customer Relations: A critical review of the literature”. The research model for the research is shown in figure below.

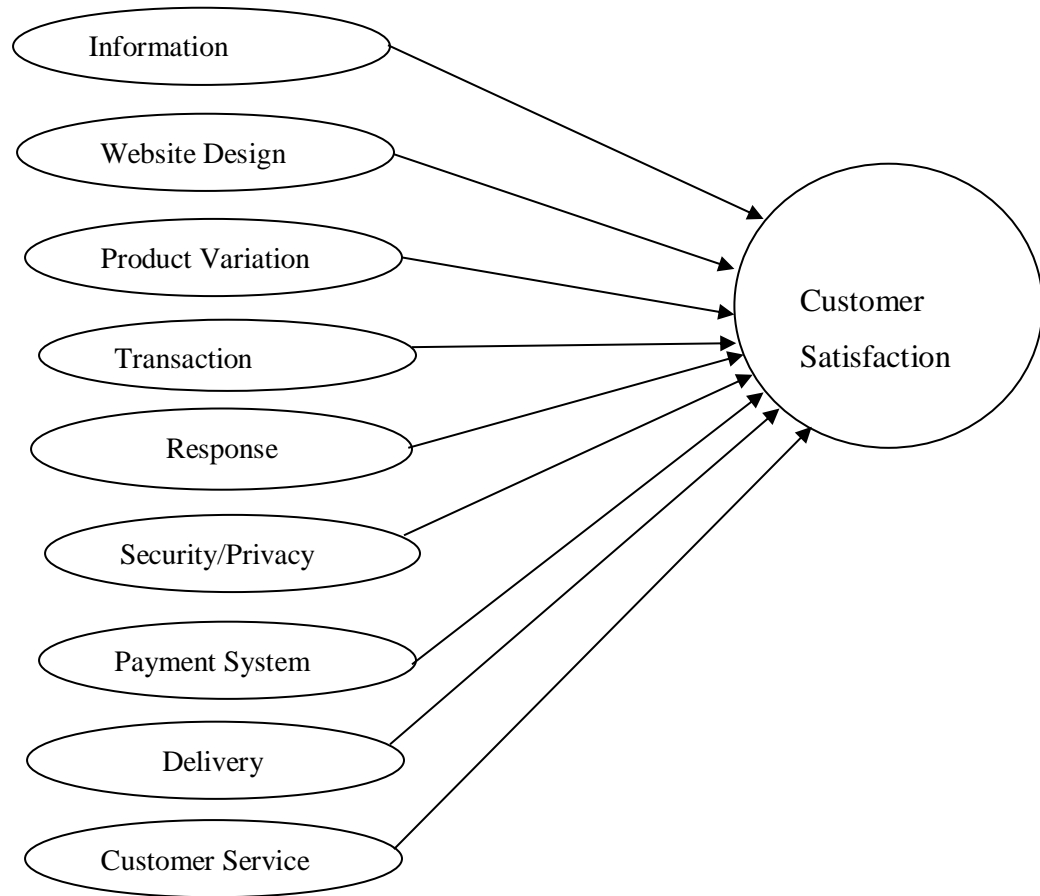


Figure 1. Conceptual Framework of the study (Kampani, 2020).

CRM components are shown in the above diagram as independent variables on the left side of the model with nine major components i.e., Customer Service, Information Quality, Website Design, Payment System, Product Variation, Transaction Ability, Response, Security/Privacy and Delivery. Customer Satisfaction is used to represent the dependent variable on the right side of the model.

## 2.6 The dependent and independent variables

### 2.6.1 Customer Satisfaction

Customers are satisfied when the delivery meets or exceeds their expectations since customer satisfaction is the outcome of comparing expectations and experience. The main factors affecting the execution of the market idea are customer satisfaction and loyalty. If a service provider meets or exceeds a customer's expectations, they are more likely to make another transaction. Finding the factors that affect customer satisfaction is important since they set the bar for the industry and provide direction for progress in the future. There are eight variables recognized as significant for

consumer fulfillment in research titled "Evaluating factors impacting customer satisfaction towards online purchasing in China, Asian Social Science". The variables are web design, security, information quality, payment system, customer service, product quality, product variation and transaction ability (Milorad, K. & Tanja, K., 2019).

### 2.6.2 Security

The capacity of a website to secure users' personal information against unwanted exposure of information during electronic transactions is known as security. Consumers who make online purchases take security seriously and believe it to be a key issue. This is because building trust during online transactions depends heavily on privacy and security concerns. Customers occasionally focus on the information about the business as a way of security since online purchasing typically entails payment by debit or credit card. The consumers' trust in using their credit cards and disclosing personal information is strongly correlated with their propensity to visit online retailers and make purchases there. Customers are more likely to purchase goods from a brand they are familiar with or from a provider they trust. One of the most important factors determining the success or failure of Internet shops is faith in online commerce. Consumers frequently avoid making online purchases due to security concerns. They worry that sellers would trick them into providing their personal information, particularly their credit card information, for improper purposes. For instance, according to research, 70% of US online customers are very concerned about the exploitation of their personal information and the security of transactions.

It is possible to separate security into two parts: the first focuses on data and transaction security, and the second is concerned with the legitimacy of customers. The privacy and security concerns are the ones receiving the most attention. 61 percent of poll respondents said they would continue with online transactions provided their personal information and privacy were safeguarded. All of the above information therefore highlights the significance of security in online commerce as one of the most important considerations that consumers evaluate when determining whether to make a purchase online. Therefore, security-related websites do have dependable and happy customers (Milorad, K. & Tanja, K., 2019).

### 2.6.3 Information Quality

Online sellers must give complete and accurate product information, as demanded by customers. Online sellers must disclose information on it since it is uncommon for online buyers to have the chance to touch and feel the products before making a decision. Customers value information that will satisfy their needs. According to a number of scholars, the volume and veracity of information are crucial components in assuring the quality of service in e-shopping. The credibility of information relates to the level of consumers' trust in the information offered by online sellers, whereas the quantity of information refers to the capacity to acquire the appropriate information during online purchasing (for example, price comparison). Online merchants may ease consumers' worries and concerns about a particular product or online buying by providing the necessary information. Customers expect access to all the information they need to make an informed choice about a good, service, or supplier, not just byte noises. Interactive online tools for comparing products and services are regarded as the crucial way of acquiring information that will aid in the decision-making process for making an online purchase and increase consumer satisfaction. E-satisfaction is said to be influenced by the quantity and quality of the product's information (Milorad, K. & Tanja, K., 2019).

### 2.6.4 Delivery

Delivery is a supply chain component that immediately impacts the customer and determines how satisfied they are. In every procedure, but especially in e-commerce, delivery is a crucial action. Customer satisfaction requires a reliable product delivery service. It indicates that the consumer will receive the purchased goods, which will be properly packaged, and whose quantity, quality, and specification will match the order, as well as the scheduled delivery time and location. The client anticipates that the store will fulfill its commitment to provide the product in a reliable and acceptable way. The consumer feels that they have a right to obtain the actual goods in the designated time frame and under the stipulated terms. The delivery service is highlighted as being the most important component in satisfying the customers' needs and expectations.

A dependable, safe, and prompt delivery is the fundamental and vital aim of online shoppers. Customers are more likely to purchase products online, thus shipping the required item quickly, securely, and to its location is essential. In an online context, quick and dependable delivery is

essential to satisfying customers and meeting their expectations. The consumer can become irate over the delivery delay. Delivering goods on time and with reliability promotes growth in online sales. The confidence in online buying is also influenced by the caliber of the delivery service. If customers are unhappy with unreliable and delayed delivery, they may quickly change websites with a simple click. Therefore, it is crucial for the delivery to be considered based on consumers' requirements (Milorad, K. & Tanja, K., 2019).

### 2.6.5 Customer service

Customer satisfaction in online commerce is positively impacted by the quality of the goods and services offered. The definition of perceived product quality is the consumer's assessment of the overall excellence or superiority of a product. According to Keeney, two key components of the success of e-commerce are to be viewed as product quality and cost minimization. Patterson emphasized that the most significant factor influencing satisfaction is how users evaluate a product's performance. On the other hand, some research on internet commerce claims that consumer happiness is positively impacted by the quality of the service. If a consumer receives high-quality service, that customer is more likely to form enduring and devoted connections with an online retailer.

Excellent service from online merchants exceeds customers' expectations, increasing customer happiness. The level of assistance provided by online merchants in facilitating the purchase, shipment, and delivery of goods and services is regarded as the quality of service. Online vendors raise the bar for their clients and enhance the value of their services by offering and delivering information via formal or informal forums. To guarantee the finest service quality for customers, it is crucial to control quality in company. The capacity to predict and then fulfill customer needs is referred to as service quality. Because of this, delivering high-quality services is crucial to raising customer happiness. Better website quality has a big impact on whether or not customers decide to buy products and services online (Milorad, K. & Tanja, K., 2019).

### 2.6.6 Website Design

One of the key influencing variables of online buying or e-commerce is website design and online purchase behavior. Website layout, website reliability/fulfillment, customer care, and website

security/privacy are the most attracting factors that influence how customers see online purchasing. In their study, Kamariah and Salwani asserted that consumers are more likely to plan to purchase online when a website is of greater quality. The quality of web design has a significant influence on consumers' choice of electronic retailers. One of the key elements encouraging customers to purchase online is website design. Reibstein's survey of almost 100,000 online buyers revealed that web site design was considered a crucial element for online buying. In a different study, Zhang and Dran found that the website's design aspects had a significant impact on consumers' contentment and discontent with a certain website.

A study by Yasmin and Nik revealed a substantial correlation between website elements and online purchase behavior. It is possible to think of website design elements as a motivating factor that may produce either favorable or negative thoughts about a website. A research by Li and Zhang found that if a website is built with high-quality features, it may direct visitors toward profitable transactions and encourage them to return. But worse website features might also make it difficult to purchase online. According to a study by Liang and Lai, a website's features or web design quality directly affects a user's decision to purchase online (kasuma, 2020).

### 2.6.7 Product Variation

Product variation in WooCommerce refers to minor variations (in size, color, etc.) of a single product type. An online store owner may easily establish a listing for each product by making a version of it, and then they can simply let the buyer select a variation from the drop-down list. Product variation is a fantastic quality in a market that is oversupplied with producers of the same product. When an item with many features, such color and size, is grouped with its variations on a single product page, this is known as product variation. They are also referred to as parent-child relationships in the Amazon marketplace. Children are the varieties, whereas the parent is the genuine product. For instance, if cotton shirt is the father, the kid may be a little cotton shirt, a small blue cotton shirt, or another color (if multiple variants apply).

Let's suppose an online retailer wants to offer t-shirts. The e-commerce owner sees the need for more t-shirt sizes (and occasionally colors) as he starts expanding his product portfolio. It takes a lot of effort to make a different product listing for each size/color, and it's also unnecessary. When purchasing a t-shirt, the customer may quickly choose the desired size and color from the drop-

down menu or check the appropriate boxes when ordering a t-shirt by first making variants for the item's size and color. Variations can also include any extra fee you would like to specify, such as a higher cost for a larger size (Islam, 2022).

Product variety gives your goods a unique worth in the eyes of the consumer. In terms of several varieties of the same product, it helps your company stand out from your rivals. To enhance the shopping experience for customers, product variants were developed to make it simpler for them to look for and contrast similar items. As a result, if a shoe is offered in 50 different product pages and the customer needs to search through all the listings to find their preferred color and size, they can view all the different variants and choose their preferred color and size from a single product page if the shoe is offered in 10 different sizes and 5 different colors. They may also compare pricing! Because it takes less time and effort from the client, this offers a lot cleaner and more interesting buying experience (Macleod, 2022).

### 2.6.8 Transaction Ability

An electronic transaction is any sale or purchase made via computer-mediated networks between businesses, homes, people, governments, or other public or private entities. Those networks are used to place orders for products and services, but both online and offline transactions are permitted for payment and final delivery. A mobile e-commerce transaction is one that is started and completed online using a mobile device, such as a laptop or a mobile phone, and a wireless access network or short-range wireless link (Jari, 2009).

The common e-commerce transactions are Business-to-business (B2B), business-to-consumer (B2C), consumer-to-consumer(C2C) and consumer-to-business(C2B).

**B2B:** One of the most typical forms of e-commerce is this one. When two firms transact for products or services, something happens. A mining firm buying equipment from a heavy machinery company, or even a company acquiring supply chain logistics services, are examples of B2B transactions.

**B2C:** B2C, or business-to-consumer, e-commerce, happens when a company sells an item or service to a customer. When Netflix sells its service to customers, for instance, it is engaging in B2C e-commerce. The whole transaction takes place online. B2C e-commerce allows for the

purchase of goods as well. A B2C transaction is one when a tangible product is purchased from Amazon.

C2C: A third party acting as an intermediary is necessary for these transactions. For illustration, think of eBay. Despite not buying or selling any things, eBay nevertheless offers a service to its consumers. The buyer and seller's information is sent online while payments are made securely through eBay's website. However, in this C2C arrangement, the seller often handles shipping, therefore the middleman does not do so.

C2B, a less well-known type of e-commerce, is comparable to C2C in that a middleman is frequently necessary. The buyer in this transaction is the business, and the selling is the customer. A C2B transaction is a great example of stock photographs. The customer submits a photo to a stock photo website. After then, the company pays for the license to use the stock photo. The transaction is hosted by the intermediate website, which also handles the online money and data transfers (Alex, 2018).

### 2.6.9 Response

The seller's reputation is improved when they respond to client feedback. The social network has already come up in their investigation; in fact, vendors and customers require greater communication. However, it seems that following scholars took a different path and did not continue down this one. These investigations eventually start to examine whether type of reaction is more efficient. They begin to be concerned with issues like whether an immediate or delayed answer is preferable, if an emotional or professional response is better, and whether an aggressive or defensive approach is preferable. In Chinese, there is a proverb that goes, "You explain because you wish to hide." Leaving aside the veracity of this adage, we only want to know if it is crucial to examine explanation strategies when clients are already dubious of online evaluations on the Internet. Additionally, we believe that current research appears to have disregarded a crucial phenomenon, namely the mobile Internet. How many individuals use their smartphones for shopping, and how many use their computers? We have reason to suppose that since social connection was the primary purpose of the mobile device, individuals will continue to purchase online using their social networking habits and preferences (Gang, L., Shaoqing, F. & Zichun Y., 2020).

## 2.6.10. Payment System

E-commerce websites employ electronic payment, which is a term for electronic financial transactions. By lowering the amount of paper required, the cost of transactions, and human expenses, electronic payments have transformed company processes. It aids commercial organizations in extending their market reach or market expansion since it is user-friendly and takes less time than manual processing. Some of the electronic payment methods with descriptions are shown below.

➤ Credit/Debit card payments:

Customers who purchase online within their financial means typically prefer debit cards. They liberate the client from carrying cash and checks. Even businesses frequently accept debit cards. Limiting the amount that may be withheld from a debit card each day enables the user to maintain tabs on their spending.

Credit cards are convenient and safe to use. A credit card is a little plastic card with an account number and a unique number on it. Additionally, it contains a magnetic stripe built in it that card readers utilize to scan credit cards. When a consumer uses a credit card to make a purchase, the credit card issuer bank makes the payment on the client's behalf. The customer then has a specific amount of time to pay the credit card bill. The primary distinction between a credit card and a debit card is that with a debit card, one may only make purchases using funds that are already in their bank accounts, but with a credit card, purchases are invoiced and paid for at the end of the billing cycle.

➤ Bank Transfer:

Internet banking users can make bank transfers for their online purchases. The most secure technique is a bank transfer since clients must authorize and authenticate each transaction. It is a straightforward method of making payments for online purchases and does not need the user to have a card.

➤ E-Wallets:

One of the newest trends, the e-wallet, offers a whole different buying experience. E-wallets are getting more and more common at a startling rate. E-Wallet demands both client and business registration. They may withdraw or deposit money after setting up an e-wallet account and connecting it to their bank account. Customer data, several credit/debit cards, and bank accounts are all stored in prepaid e-wallet accounts. It requires one-time

registration and does away with the requirement of repeatedly inputting information while making payments. E-sewa, Khalti, Fonepay, PrabhuPay, and more well-known electronic wallets are available in Nepal.

➤ Mobile payments:

Payment acceptance followed the trend of mobile adoption. Customers will find a speedy answer with this digital payment method. The consumer only needs to download software and attach it to the credit card to set up a mobile payment option. Customers are finding it easier to use mobile payment methods as eCommerce becomes more mobile-centric (Ecommerce- payment systems, n.d).

## **CHAPTER III**

### **RESEARCH METHODS**

Methodology is the comprehensive, theoretical examination of the techniques employed in a particular field of inquiry. It includes the conceptual examination of the body of procedures and rules related to an area of knowledge. It frequently includes ideas like stages, paradigms, theoretical models, and quantitative or qualitative methodologies. In other words, it entails a number of well-planned procedures that involve acquiring, documenting, evaluating, and interpreting the data in order to identify solutions to the issue. The study design and plan, sample description, instrumentation, data collecting method, validity and dependability of the data, and analysis strategy are all covered in this chapter.

#### **3.1 Research Plan and Design**

The study approach involves both current and historical data, as well as publishing research, interviews, questionnaires, and other research techniques. Additionally, one of the most effective techniques used to examine participant responses is cross-sectional quantitative study.

An organized method for gathering and interpreting data from many sources is quantitative research. To get results, it makes use of computational, statistical, and mathematical methods. The study is quantitative in nature. In order to target a high sample size for the investigation, a cross sectional quantitative approach was used (Research Plan And Procedure, 2012).

#### **3.2 Population and Sample**

Selection of samples is very important part of a research. This research study discusses its subjects of relationship between e-CRM and Customer Satisfaction in e-business organizations in Nepal. Both a descriptive and an analytical technique have been used to perform the study. The descriptive technique has been used mostly for issue conceptualization. Statistical methods are employed in an analytical manner to determine the result of the study. Descriptive and analytical research designs are therefore emphasized in the study.

### 3.2.1 Description of Sample

#### **i. Population**

The population of this study included about 15 e-business organizations in Nepal and those customers who take services from those e-commerce company. For this study, survey method was used which was directed by the goals of the research, which are outlined in the first chapter.

#### **ii. Sample Size**

The sample questions were distributed to 300 respondents who are directly or indirectly linked with e-commerce organizations in Nepal. Out of whom 250 responded who are the customers of the e-commerce organizations of Nepal. The questions were distributed digitally, and data collected in google forms. Hence the sample size of this study is 250 respondents. This sample represents the whole population of the study. The study area includes all over Nepal.

#### **iii. Sampling Techniques**

Due to time as well as resource constraint, the simple random sampling technique was used for the study. Questionnaires were distributed digitally through social media, and data collected in google forms.

### **3.3 Data Collection Procedures**

Survey method was used for data collection for this study. Primary data were used for the study. The responders were given access to a structured questionnaire through email. After the respondents completed the questionnaire in accordance with the directions provided in the questions, the data were gathered. The responses then were analyzed using a mathematical tool which is presented in the tables for a clear understanding to the reader. Conclusion then was drawn from the analysis of research and the recommendations were made.

#### **3.3.1 Primary Data Collection**

For the research, a primary data gathering approach was employed. Primary data is defined as information that is initially utilized to test the working hypothesis and then as proof to back up a claim made by the researcher. The research was conducted using a survey questionnaire approach

since it works best for descriptive studies. The survey was conducted electronically and from personal visit and the questionnaire was self-administered which reduce the occurrence of missing data. The period of data gathering lasted a total of six weeks. The 5 variables closed-ended question form was used to address the respondents' questions.

### **3.4 Instrumentation**

The primary source of data gathering was utilized to gather data, evaluate data, and draw conclusions. A structured questionnaire with multiple choice questions and rating questions to match the study's goals served as the main source of data. The questions from various research papers were referred to build the questionnaire (You, 2014) . The questionnaire was constructed based on findings of literature review after discussion with the supervisor. The questions were subsequently edited and to maximize content validity, a comprehensive literature review was done to grasp the relationship between e-CRM and Customer Satisfaction in e-business organizations in Nepal.

To meet the objectives of research study, a five-point likert scale with a range of 1(Strongly Disagree) to 5(Strongly Agree) was utilized and determined if there was a considerable difference between the two variables. Completion of survey instruments provided data to measure various independent and dependent variables used in the research study.

### **3.5 Pilot Test**

A sample of respondents from the target population should be used to test a survey. To look at instrumentation and design flaws, we do a pilot test. Twenty respondents in all were recruited for the pilot study. Before undertaking data collection in order to meet the study's goals, The validity of the instrument used to measure the variable was evaluated by sending questionnaires to IT specialists from different IT industries in Nepal.

### **3.6 Reliability Analysis**

The scale should consistently represent the construct it is measuring, in the reliability analysis. It is helpful at specific points of life and under certain circumstances. The information gathered includes sets of questionnaires that were designed for the dependent and independent elements, respectively, to evaluate the relationship between various CRM parameters and customer satisfaction in Nepali e-commerce firms. The most popular internal consistency metric when using many Likert questions that make up a scale is Cronbach's alpha.

### **3.7 Data Processing and Analysis**

Qualitative and quantitative data are the two main ways for obtaining and analyzing information. Quantitative data are gathered for this study. The goals of the study are explained to the respondents. Customers of e-business companies were asked for their permission before being asked to complete a pre-structured questionnaire.

Data are processed in Microsoft Excel and evaluated using SPSS (Statistical Package for the Social Sciences), a descriptive analytic program for statistical analysis, as well as other suitable statistical tools, depending on the requirements of the data.

## CHAPTER IV

### ANALYSIS AND RESULTS

The demographic analysis and interpretation of primary data gathered through surveys are covered in this section. It provides a detailed account of the respondents' demographic features. The descriptive statistics of the respondents' demographic profiles are highlighted in this study. Numerous statistical analyses, including frequencies, percents, means, standard deviations, correlations, reliability tests, and regression analyses, were carried out using the SPSS program. The outcomes are then displayed in tabular format and thoroughly explained. Additionally, hypothesis testing was done to view the significance of the hypotheses placed out and achieve the goals of the study.

#### 4. 1 Demographic Characteristic of Respondents

The demographic features of the respondents are explained in this section. The demographic information of participants comprises of gender, age, educational level, types of e-commerce organizations and state/province of respondents. Table 4.1 shows the demographic features of the respondents. The data were collected from 250 respondents for the research. Out of 250, 59.2 percent are male, and the remaining 40.8 percent are female. The highest number respondents are in the age group 26-35 covering 50.4 percent. Likewise, the table gives the detail of education level of the respondents. 8.4 percent are SEE passed, 25.6 percent are Plus 2 passed, 44 percent are bachelor passed and remaining 22 percent are master passed. In this research the most respondents are those who passed their bachelor.

Similarly, the table gives information about the various e-commerce organizations used by the respondents. Daraz.com users are the highest with 40 percent coverage. Sastodeal.com, Hamrobazar.com, Foodmandu, Meroshopping, etc are some prominent e-commerce sites covering 20 %, 15.2%, 8.8% and 4.4%. We can clearly say that there are various e-commerce organizations in Nepal but Sastodeal.com and Daraz.com are mostly used by the people. In addition to these, data were collected from people of 7 provinces of Nepal. 6.8 percent respondents were from Province 1, 10.4 percent from Province 2, 38.8 percent from Bagmati, 16.8 percent from Gandaki,

12.4 percent from Province 5, 7.2 percent from Province 6 and 7.6 percent from Province 7. It represents that the number of people using e-commerce organization is highest from Bagmati Province in this research.

**Table 4.1:**

*Demographic Profile of the Respondents*

<b>Factors</b>	<b>Distribution</b>	<b>Frequency</b>	<b>Percent</b>
Gender	Male	148	59.2
	Female	102	40.8
Age	16-25	83	33.2
	26-35	126	50.4
	36-45	30	12.0
	46-55	8	3.2
	Above 56	3	1.2
	Education Level	SEE	21
	Plus 2	64	25.6
	Bachelor	110	44.0
	Masters	55	22.0
E-commerce Organizations	Daraz.com	100	40.0
	Sastodeal.com	50	20.0
	Hamrobazar.com	38	15.2
	Foodmandu	22	8.8
	Meroshopping.com	11	4.4
	Muncha.com	14	5.6
	Esewa	6	2.4
	Dress mandu	2	.8
	kinumna.com	4	1.6
	Thulopasal	1	.4
	Nepa store	1	.4
	Kaffeine-Bakes	1	.4
	State/Province	Province 1	17
	Province 2	26	10.4
	Bagmati	97	38.8

Gandaki	42	16.8
Province 5	31	12.4
Province 6	18	7.2
Province 7	19	7.6

(Source: Survey 2021)

## 4.2 Descriptive Analysis

The descriptive analysis of the data gathered by the questionnaire throughout the study procedure is covered in this part. Simple summaries of the sample and the observations are provided by descriptive statistics. Here, statistical calculations for the mean and standard deviation are included in the descriptive analysis. Here we have also manipulated the minimum and maximum values of various factors of CRM and Customer Satisfaction. This has quantitatively described the information on factors affecting CRM as well as Customer Satisfaction in e-business organization.

### 4.2.1 Customer Service

**Table 4.2:**

*Customer Service*

	N	Min	Max	Mean	S. D
The organization take care of customers' problems promptly.	250	1	5	3.90	.987
The organization's site is up and running all the time.	250	1	5	3.98	.826
The organization is willing to help customers and provide prompt service.	250	1	5	3.69	.859
The service of e-commerce company is available 24x7 and is less time-consuming for customers.	250	1	5	3.74	.990
Company focuses on fair treatment to its customers.	250	1	5	3.85	.993

(Source: Survey 2021)

The result of table 4.2 shows that the statement: The organization take care of customers' problems promptly, has mean value of 3.90 (0.987) which shows that the respondents agree with the statement. Also, the statement: The organization's site is up and running all the time, has the mean value of 3.98 and standard deviation 0.826. Among the above five statements the mean value of this statement is highest which indicates that most of the respondents agree with that statement. Similarly, the statement: The organization is willing to help customers and provide prompt service, has the lowest mean of 3.69 (0.859). From the above table it is clear that the mean values of other statements are above 3 which shows the respondents agree to all the statements.

#### 4.2.2 Information Quality

**Table 4.3:**

*Information Quality*

	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>S.D.</b>
The organisation can get any information about customers regarding their choice of purchases.	250	1	5	3.56	.981
The website provides the relevant products/services information.	250	1	5	3.74	.923

(Source: Survey 2021)

The table 4.3 shows that the statement: The organisation can get any information about customers regarding their choice of purchases, has mean value of 3.56 and standard deviation of 0.981 which shows that the respondents agree with the statement. Also, the statement: The website provides the relevant products/services information, has the mean value of 3.98 and standard deviation 0.826. This shows that respondents agree that they get all the products related information from the websites of the e-commerce organizations.

### 4.2.3 Website Design

**Table 4.4:**

*Website Design*

	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>S. D</b>
The website is easy to navigate	250	2	5	3.89	.848
Due to the great work of graphics the website looks appealing.	250	1	5	3.83	.929
The menu items are easily accessible from any page of the web sites.	250	1	5	3.69	.908
The website contains all the necessary information required for the customers.	250	1	5	3.63	1.045
I find it easier to look for and choose the appropriate goods because of website's design.	250	1	5	3.74	.948

(Source: Survey 2021)

The result of table 4.4 shows that the statement: The menu items are easily accessible from any page of the web sites., has mean value of 3.83 (0.929) which shows that the respondents agree with the statement. Also, for the statement: The website is easy to navigate, the value of mean is 3.98 and that of standard deviation is 0.848. From the given five statements the mean value of this statement is highest which indicates that most of the respondents agree with that statement. Similarly, the statement: The website contains all the necessary information required for the customers, has the lowest mean of 3.63(1.045). From the above table we can see that the mean values of other statements are above 3 which shows the respondents agree to all the statements.

#### 4.2.4 Payment System

**Table 4.5:**

*Descriptive Analysis of Payment System*

	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>S. D</b>
The company has various online payment gateway for purpose of payment.	250	1	5	4.01	.903
The online payment system has made my financial transactions easy.	250	1	5	4.10	.777
The payment procedure is faster and simple to carry.	250	1	5	3.75	.902

(Source: Survey 2021)

The table 4.5 shows that the statement: The company has various online payment gateway for purpose of payment, has mean value of 4.01 and standard deviation of 0.903 which shows that the respondents strongly agree with the statement. Also, the statement: The online payment system has made my financial transactions easy, has the mean value of 4.10 and standard deviation 0.777. This shows that respondents agree with the statement. The mean value and standard deviation of the statement: The payment procedure is faster and simple to carry are 3.75 and 0.902 respectively which indicates the respondents agree with the statement.

#### 4.2.5 Product Variation

**Table 4.6**

*Product Variation*

	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>S. D</b>
I can understand product at a glance from its size and colors.	250	1	5	3.20	.985
I purchase repeatedly from same company due to availability of different color and size of the products.	250	1	5	3.43	.980
I find products of different color and sizes by just searching in the company's websites.	250	1	5	3.58	.963

(Source: Survey 2021)

The table 4.6 shows that the statement: I can understand product at a glance from its size and colors, has mean value of 3.20 and standard deviation of 0.985 which shows that the respondents strongly agree with the statement. Also, the statement: I purchase repeatedly from same company due to availability of different color and size of the products., has the mean value of 3.43 and standard deviation 0.980. This shows that respondents agree with the statement. The mean value and standard deviation of the statement: I find products of different color and sizes by just searching in the company's websites, are 3.58 and 0.963 respectively which indicates the respondents agree with the statement.

#### 4.2.6 Transaction ability

**Table 4.7:**

*Transaction Ability*

	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>S. D</b>
The smooth transaction ability of website has allowed me to make online payment without any problems.	250	1	5	3.80	.860
The transaction ability of website encourages me to purchase online without having to visit the shops.	250	1	5	3.92	.921
There are not any errors in the billing of the products purchased online.	250	1	5	3.40	.970

(Source: Survey 2021)

The result of table 4.7 shows that the statement: The smooth transaction ability of website has allowed me to make online payment without any problems, has mean value of 3.80 and standard deviation of 0.860 which shows that the respondents agree with the statement. Also, the statement: The transaction ability of website encourages me to purchase online without having to visit the shops, has the mean value of 3.92(which is highest of the three statements) and standard deviation 0.921. This shows that respondents agree with the statement. The mean value and standard deviation of the statement There are not any errors in the billing of the products purchased online, are 3.40 and 0.970 respectively which indicates that the respondents agree with the statement.

## 4.2.7 Response

**Table 4.8:**

*Response*

	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>S. D</b>
The company responds to the queries and complaints of the customers instantly.	247	1	5	3.81	1.061
Company responds considering my feedbacks or responses.	247	1	5	3.77	.967
The company interact with customers in a polite manner.	246	1	5	3.80	.908

(Source: Survey 2021)

The result of table 4.8 shows that the statement: The company responds to the queries and complaints of the customers instantly, has mean value of 3.81(which is highest of the three statements) and standard deviation of 1.061 which shows that the respondents agree with the statement. Also, the statement: Company responds considering my feedbacks or responses, has the mean value of 3.77 and standard deviation 0.967. This shows that respondents agree with the statement. The mean value and standard deviation of the statement: The company interact with customers in a polite manner, are 3.80 and 0.908 respectively which indicates that the respondents agree with the statement.

## 4.2.8 Security/Privacy

**Table 4.9:**

*Security/Privacy*

	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>S. D</b>
The organization compensate for the problem they create.	249	1	5	3.51	.992
The site provides a confirmation of the service ordered.	245	1	5	3.93	.909
The organization's site shows care in how it collects your personal information.	249	1	5	3.63	.942
While purchasing online, there is risk of identity theft.	250	1	5	3.56	.886
The organization takes care of the security of confidential data of the customer.	250	1	5	3.56	.918

(Source: Survey 2021)

The result of table 4.9 shows that the statement: While purchasing online, there is risk of identity theft, has mean value of 3.56 (0.886) which shows that the respondents agree with the statement. Also, for the statement: The site provides a confirmation of the service ordered, the value of mean is 3.93 and that of standard deviation is 0.909. From the given five statements the mean value of this statement is the highest which indicates that most of the respondents agree with this statement. Similarly, the statement: The organization compensate for the problem they create, has the lowest mean of 3.51(0.992). From the above table the mean values of other statements are above 3 which shows the respondents agree to all the statements.

## 4.2.9 Delivery

**Table 4.10:**

*Delivery*

	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>S. D</b>
The option free delivery in ecommerce increases the number of customers.	248	1	5	3.89	.886
Online purchase makes me feel concerned about delivering the wrong product.	249	1	5	3.92	.905
Online shopping and services delivery are available even on Saturday.	250	1	5	3.76	1.000
During online shopping, I am anxious whether the ordered product will be as the expected.	249	1	5	4.04	.890
I can get on-time delivery through e-commerce.	250	1	5	3.50	.962

(Source: Survey 2021)

The above table 4.10 shows that the statement: The option free delivery in ecommerce increases the number of customers, has mean value of 3.89 (0.886) which shows that the respondents agree with the statement. Also, the statement: During online shopping, I am anxious whether the ordered product will be as the expected, has the mean value of 4.04 and standard deviation 0.890. Among the above five statement the mean value of this statement is highest which indicates that most of the respondents agree with this statement. Similarly, the statement: I can get on-time delivery through e-commerce, has the lowest mean of 3.50(0.962). From the above table the mean values of other statements are above 3 which show that the respondents agree to all the statements.

## 4.2.10 Customer Satisfaction

**Table 4.11:**

*Customer Satisfaction*

	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>S. D</b>
How satisfied are you with the information you receive and the timeline of the organization in responding to your needs?	250	1	5	3.67	.912
How satisfied are you with organization's range of services/ products?	250	1	5	3.71	.922
I am satisfied with the quality of services I receive from the organization.	250	1	5	3.60	.923
I am satisfied with the way the organization secure my data.	250	1	5	3.59	.920
I am satisfied with the design and responsive nature of the website.	250	1	5	3.72	.948
I am satisfied with the delivery services of the organization.	250	1	5	3.86	.957

(Source: Survey 2021)

The table 4.11 shows that the statement: How satisfied are you with the information you receive and the timeline of the organization in responding to your needs? has mean value of 3.67 (0.912) which shows that the respondents agree with the statement. Also, the statement: I am satisfied with the delivery services of the organization, has the mean value of 3.86 and standard deviation 0.957. Among the above six statements the mean value of this statement is highest which indicates that most of the respondents agree with this statement. Similarly, the statement: I am satisfied with the way the organization secure my data, has the lowest mean of 3.59(0.920). From the above table the mean values of other statements are above 3 which show that the respondents agree to all the statements.

## 4.2.11 Descriptive analysis: Independent and Dependent Variable

**Table 4.12**

*Descriptive analysis: Independent and Dependent Variable*

Descriptive Statistics					
	N	Min	Max	Mean	S. D
Customer Service	250	1.60	4.60	3.8328	.60071
Information Quality	250	1.00	5.00	3.6500	.78034
Website Design	250	1.60	5.00	3.7576	.59607
Payment System	250	1.33	5.00	3.9547	.62855
Product Variation	250	1.00	5.00	3.4027	.72723
Transaction Ability	250	1.00	5.00	3.7067	.65601
Response	246	1.00	5.00	3.7886	.74963
Security/Privacy	244	1.33	4.50	3.5765	.51792
Delivery	246	1.60	4.80	3.8244	.53059
Customer Satisfaction	250	1.00	4.75	3.7040	.56882

(Source: Survey 2021)

Table 4.12 shows that the overall mean of the various factors of CRM that are Customer Service, Information Quality, Website Design, Payment System, Product Variation, Transaction Ability, Response, Security/Privacy and Delivery are 3.8328, 3.6500, 3.7576, 3.9547, 3.4027, 3.7067, 3.7886, 3.5765 and 3.8244 respectively and their standard deviation are .60071, .78034, .59607, .62855, .72723, .65601, .74963, .51792 and .53059 respectively. The mean for Customer Satisfaction is 3.7040 and standard deviation is 0.56882. All the variables mean lies above 3 and standard deviation below 1.0. It means that the data is accurate, and respondents are motivated to agree to the statements that Customer Relationship Management factors influence the Customer Satisfaction. The mean value of Payment System is 3.9547 which showed that Payment System has greater influences on Customer Satisfaction in e-commerce organization in Nepal.

## 4.3 Measurement of Reliability

The most popular internal consistency metric when using multiple Likert questions that make up a scale is Cronbach's alpha. Above 0.9 in Cronbach's alpha indicates excellence, 0.8 or above is good, 0.7 or above is acceptable, 0.6 or above is doubtful, 0.5 or above is bad, and below 0.5 is

unsatisfactory. In this study, the consistency of item scales for continuous dependent and independent variables was assessed using Cronbach's alpha. The reliability test of Likert scale questions' alpha value was determined, and the results are presented in Table 4.13.

**Table 4.13:**

*Reliability Test*

<b>Variables</b>	<b>Cronbach's alpha</b>	<b>No. of items</b>
Customer Service	0.646	5
Information Quality	0.510	2
Website Design	0.631	5
Payment System	0.558	3
Product Variation	0.600	3
Transaction Ability	0.521	3
Response	0.644	3
Security/Privacy	0.510	5
Delivery	0.481	5
Customer Satisfaction	0.714	6

(Source: Survey 2021)

The reliability test for every dependent and independent variable was performed. The Cronbach's alpha values for customer service is 0.646, information quality is 0.510, website design is 0.631, payment system is 0.558, product variation is 0.600, transaction ability is 0.521, response is 0.644, security/privacy is 0.510, delivery is 0.481, customer satisfaction is 0.714 and customer loyalty is 0.484. The numbers indicate that the data acquired from the questionnaire survey is trustworthy enough to proceed with the analysis as maximum variables have Cronbach's alpha value greater than 0.5.

## **4.4 Hypothesis Testing**

### **4.4.1 Correlation Analysis**

A sample correlation coefficient is calculated in correlation analysis. The sample correlation coefficient, abbreviated as  $r$ , measures the direction and intensity of the linear link between the two variables and runs from -1 to +1. There is a positive or negative correlation between the two variables because higher levels of one are connected to higher levels of the other (i.e., higher levels of one variable is associated with lower levels of other). The sign of the correlation coefficient

denoted the direction of the relationship, while the value of the correlation coefficient revealed the strength of the linkage. A significant amount of correlation in absolute terms is indicated by a correlation coefficient greater than 0.9. (i.e., greater than 0.9 or less than -0.9). A medium level of correlation is indicated by an absolute value of the coefficient that is more than 0 but less than 0.9. If the coefficient's absolute value is low, the connection's strength is poor.

**Correlation Matrix**

The Pearson Correlation Coefficient was computed using a Bivariate Correlation to know the direction and strength of the relationship of the independent variables (Cus\_Ser, IQ, WD, PS, PV, TA, Res, S/P, Del) on the dependent variable (Cus\_Sa).

**Table 4.14:**

*Correlation Matrix*

	Cus_Sa	Cus_Ser	IQ	WD	PS	PV	TA	Res	S/P	Del
Cus_Sa	1									
Cus_Ser	.552**	1								
IQ	.391**	.428**	1							
WD	.456**	.443**	.458**	1						
PS	.467**	.343**	.236**	.394**	1					
PV	.486**	.382**	.304**	.474**	.263**	1				
TA	.580**	.475**	.299**	.457**	.489**	.361**	1			
Res	.655**	.608**	.401**	.496**	.325**	.441**	.456**	1		
S/P	.679**	.516**	.318**	.460**	.347**	.383**	.439**	.651**	1	
Del	.563**	.483**	.404**	.488**	.475**	.336**	.521**	.531**	.500**	1

\*\* Correlation is significant at the 0.01 level (2-tailed)

(Source: Survey 2021)

The findings showed that, at the 1% level, every independent variable was strongly linked with customer satisfaction. At a significance level of 0.01 the customer service and satisfaction Pearson correlation (r) value was 0.552. This is a positive association between these two factors, demonstrating that customer satisfaction is positively correlated with customer service levels.

Information Quality and Customer Satisfaction has a Pearson coefficient(r) value of 0.428 at a significance level of 0.01. This demonstrates that the relationship between information quality and consumer happiness is not very good.

Similar to this, a positive association between website design and customer happiness was shown by the Pearson coefficient (r) value of 0.458 at the 0.01 level of significance. For the Payment System and customer happiness, the Pearson correlation (r) value was 0.394 at the 0.01 level of significance. This demonstrates that the relationship between the payment method and customer service is beneficial. Additionally, a positive link between product variety and customer satisfaction was shown by the Pearson coefficient (r) value of 0.263 at the 0.01 level of significance. At the 0.001 level of significance, there is a significant positive correlation between transaction ability and customer happiness (r=0.361). It suggests that as transaction ability of e-commerce grows the customer happiness also increases.

A high positive association between response and customer satisfaction was also shown by the Pearson coefficient (r) value of 0.456 at the 0.01 level of significance. Customer satisfaction and security and privacy showed a high positive link with a Pearson coefficient (r) value of 0.651 at the 0.01 level of significance. This shows when the security increases then customer satisfaction also increases.

Lastly, there exist a positive correction between delivery and customer satisfaction at 0.001 level of significance with r=0.500.

#### 4.4.2 Regression Analysis

Regression Analysis Expression,

$$\text{Cus\_sa} = \alpha + \beta_1 \text{Cus\_Ser} + \beta_2 \text{IQ} + \beta_3 \text{WD} + \beta_4 \text{PS} + \beta_5 \text{PV} + \beta_6 \text{TA} + \beta_7 \text{Res} + \beta_8 \text{S/P} + \beta_9 \text{Del} + e_i \dots \dots \dots (i) \text{-Model 1}$$

Where,

Dependent Variable:

$$Y = \text{Cus\_Sa} \text{ (Customer Satisfaction towards E-commerce)}$$

Independent Variables:

$$X_1 = \text{Cus\_Ser} = \text{Customer Service}$$

$$X_2 = \text{IQ} = \text{Information Quality}$$

$$X_3 = \text{WD} = \text{Website Design}$$

X4 = PS = Payment System

X5 = PV= Product Variation

X6= TA=Transaction Ability

X7 = Res= Response

X8 = S/P =Security or Privacy

X9 = Del =Delivery

Multiple regression analysis was carried out to predict the single dependent variable by the set of independent variables. The results of multiple regression analysis are presented below. The independent variables: Customer Service, Information Quality, Website Design, Payment System, Product Variation, Transaction Ability, Response, Security/Privacy and Delivery are regressed with dependent variables i.e., Customer Satisfaction. The results of multiple regressions for present study are shown in Table 4.15 below.

**Table 4.15:**

*Regression Analysis*

Model	Coefficient				Summary		Anova	
	B	Std. Error	t	p-value	R Square	Adj. R Square	F	Sig F
(Constant)	.194	.222	.874	0.000	.608	.592	38.954	.000 <sup>b</sup>
Customer Service	.015	.053	.283	0.000				
Information Quality	.020	.035	.585	0.000				
Website Design	-.058	.052	-1.128	0.000				
Payment System	.114	.046	2.492	0.000				
Product Variation	.111	.037	3.018	0.000				
Transaction Ability	.155	.045	3.462	0.000				
Response	.160	.048	3.336	0.000				
Security/Privacy	.349	.062	5.654	0.000				
Delivery	.090	.058	1.553	0.000				

(Source: Survey 2021)

$$\text{Customer Satisfaction} = 0.194 + 0.015\text{Cus\_Ser} + 0.020\text{IQ} - 0.058\text{WD} + 0.114\text{PS} + 0.111\text{PV} + 0.155\text{TA} + 0.160\text{Res} + 0.349\text{S/P} + 0.090\text{Del} \dots \dots \dots \text{(ii)– Model 2}$$

The equation in the model 2 shows the positive and negative relationship between independent Variables and the dependent variable. The table also shows that Customer Satisfaction changes by 0.015 units for every 1-unit change in the customer service and the other independent variables remain the same. Similarly, Customer Satisfaction changes by 0.020 units for every 1-unit change in the information quality and the other independent variables remain the same. As we can see in the above table that there is negative relationship between customer satisfaction and website design and customer satisfaction decreases by 0.058 units for every 1-unit increase in the web site design and the other independent variables remain the same. The Customer Satisfaction changes by 0.114 units for every 1-unit change in the payment system and the other independent variables remain the same. Similarly, Customer Satisfaction changes by 0.111 units for every 1-unit change in the information quality and the other independent variables remain the same.

Also, Customer Satisfaction changes by 0.155 units for every 1-unit change in the transaction ability and the other independent variables remain unchanged and Customer Satisfaction changes by 0.160 units for every 1-unit change in the Response and the other independent variables remain unchanged. Likewise, Customer Satisfaction changes by 0.349 units for every 1-unit change in the Security/Privacy and the other independent variables remain unchanged. Finally, Customer Satisfaction changes by 0.090 units for every 1-unit change in the Delivery and the other independent variables remain the same.

The table also indicates that Security/Privacy has the most powerful effect on Customer Satisfaction at coefficient value of 0.349. This is followed by Response with coefficient value of 0.160, transaction ability with coefficient value of 0.155 and so on. Besides, the table shows the model summary of  $R^2$  and adjusted  $R^2$ . The value of  $R^2$  is 0.608 and adjusted  $R^2$  is 0.592 which indicates that 37.2 % of effect on dependent variable is accounted by independent variable. The above table also exhibits the ANOVA summary between the dependent and independent variables. The F-value is 38.954 and the significance value is 0.000. Thus, the Model 2 is significant from the regression analysis.

### 4.4.3 Summary of hypothesis

A statistical hypothesis test is a technique for drawing conclusions from two hypotheses that are likely to clash with one another. A null hypothesis and an alternative hypothesis are put out for the probability distribution of the data in a statistical hypothesis test. If the null hypothesis is correct and the sample's likelihood of occurrence is less than the threshold probability, the significance level, the difference between the sample and the null hypothesis is considered statistically significant. The alternate hypothesis may then be accepted once the null hypothesis is rejected by the hypothesis test.

Considering Type I error and Type II error, which are regulated by the pre-specified significance level, aids in the process of differentiating between the null hypothesis and the alternative hypothesis. We look at the p-value for the testing of hypothesis. The summary of each hypothesis has been presented in the table below.

**Table 4.16:**

*Summary of Hypotheses*

<b>Hypotheses</b>	<b>p-value</b>	<b>Result</b>
H1: Information Quality has a positive impact on customer satisfaction.	0.000 ( $p \leq 0.05$ )	Accepted
H2: Website Design has a positive impact on customer satisfaction.	0.000 ( $p \leq 0.05$ )	Accepted
H3: Product variation has a positive impact on customer satisfaction.	0.000 ( $p \leq 0.05$ )	Accepted
H4: Transaction ability has a positive impact on customer satisfaction.	0.000 ( $p \leq 0.05$ )	Accepted
H5: Response has a positive impact on customer satisfaction.	0.000 ( $p \leq 0.05$ )	Accepted
H6: Security/Privacy has a positive impact on customer satisfaction.	0.000 ( $p \leq 0.05$ )	Accepted
H7: Payment system has a positive impact on customer satisfaction.	0.000 ( $p \leq 0.05$ )	Accepted
H8: Delivery has a positive impact on customer satisfaction.	0.000 ( $p \leq 0.05$ )	Accepted
H9: Customer Service has a positive impact on customer satisfaction.	0.000 ( $p \leq 0.05$ )	Accepted

(Source: Survey 2021)

## 4.5 Major findings

The main purpose of this research is to study and analyze the impact of different factors of Customer Relationship Management on Customer Satisfaction in e-commerce organizations in Nepal. To fulfill this purpose a survey was conducted to find the influence of independent variables like Customer Service, Information Quality, Website Design, Payment System, Product Variation, etc., on customer satisfaction.

From the data presentation and analysis different findings were produced which further aided for drawing conclusion of the research/survey. This section points out the key findings of the current research which are listed as below:

- From the total of 250 responders, 59.2 % were male and 40.8% were female.
- The responders were from the age group 16-25, 26-35,36-45, 46-55 and above 56. The maximum respondents are from the age group 26-35 covering 50.4%.
- The respondents were from the 7 provinces of the country. Majority of respondents for the research (38.8%) are from Bagmati Province. Also, most of respondents are the customers of Daraz.com covering 40%. This is followed by customer of Sastodeal.com (20%).
- The mean value for Customer Service, Information Quality, Website Design, Payment System, Product Variation, Transaction Ability, Response, Security/Privacy and delivery are 3.8328, 3.6500, 3.7576, 3.9547, 3.4027, 3.7067, 3.7886, 3.5765 and 3.8244 respectively.
- The results of correlation analysis show that the Customer Service( $r=0.552$ ), Information Quality ( $r=0.428$ ), Website Design( $r=0.458$ ), Payment System( $r=0.394$ ), Product Variation ( $r=0.263$ ), Transaction Ability( $r=0.361$ ), Response( $r=0.456$ ), Security/ Privacy ( $r=0.651$ ) and Delivery ( $0.500$ ) have a statistically linear relationship with Customer Satisfaction in e-commerce organizations.
- The result of regression analysis shows the impact of various CRM factors on Customer Satisfaction. The Probability of F-stat is 0.000 from the result of ANOVA and it is less than 0. 001.Hence we can conclude that there is significant impact of independent variables on the dependent variable.
- The Security/Privacy has the most powerful effect on Customer Satisfaction at coefficient value of 0.349. This is followed by Response with coefficient value of 0.160, transaction ability with coefficient value of 0.155 and so on.

- The result of regression analysis also depicts that there is very less impact of customer service on customer satisfaction with regression coefficient 0.01.

## CHAPTER V

### DISCUSSION, CONCLUSIONS, AND IMPLICATIONS

This final chapter of the study comprises of the discussion, conclusions, and implications of the study. The discussion part describes about the confirmation of the major findings of the study with the previous studies on the similar subjects. After that, the conclusions are derived from the findings. Finally, the implications that could be drawn from the study are also discussed in this chapter.

#### 5.1 Discussions

This study examined impact of various factors of CRM and Customer Satisfaction in e-commerce organizations in Nepal. Majority (50.4%) of the respondents are adults from age group, 26–35 years who are economically active people. They are widely involved in the e-commerce business and shopping. The result from the hypothesis testing showed that there is significant relationship between the nine factors of Customer Relationship Management and Customer Satisfaction in e-business organization in Nepal.

Based on the literature, the outcomes generated from this analysis are similar to that of the findings from the past study conducted by (Irantaj, G., 2018). Like other nations, Iran has progressively increased its popularity of online shopping as the business sees fiercer rivalry among e-retailers. This study looked at the important variables that influence customer satisfaction at Iran's most well-known B2C e-commerce site, Digikala Company. The findings demonstrated a favorable, statistically significant relationship between the factors (website design, information quality, website usability, order fulfillment quality, security and privacy and trust) and customer happiness. Security and privacy exert a bigger effect than the other five of these important elements. This study makes the case that Iranian e-retailers and e-commerce service designers may make use of its results to understand how to raise customer satisfaction levels and, as a consequence, obtain a competitive edge.

(Sanyal, 2019) in their study entitled 'Factors Affecting Customer Satisfaction with Ecommerce Websites – An Omani Perspective' demonstrated the association between the CRM elements and customer satisfaction. This study closely resembles my findings in many ways. This study identified and examined the critical variables influencing Oman's online shopping behavior and

consumer satisfaction with e-commerce websites. It showed that the key elements that have a favorable impact on consumer satisfaction are price, ease of use, safety and security, and the availability of a variety of payment alternatives.

In context of Nepal, the various e-commerce organizations provide their services to their best. Compared to 5 years back the services of these organizations have improved a lot in context of quality and quantity both. The customers are also highly satisfied with their services which is illustrated from this study. The result of correlation analysis shows that the Customer Service, Information Quality, Website Design, Payment System, Product Variation, Transaction Ability, Response, Security/ Privacy and Delivery have a statistically linear relationship with Customer Satisfaction in e-commerce organizations. There is positive impact of independent variables on the dependent variable i.e., Customer Satisfaction at 1% level of significance.

Also, the result of regression analysis shows the impact of various CRM factors on Customer Satisfaction. With a regression coefficient value of 0.349, Security/Privacy has the greatest significant impact on Customer Satisfaction. This is followed by Response with value of regression coefficient 0.160, transaction ability with coefficient value of 0.155 and so on. This analysis also indicated that there is very less impact of customer service on customer satisfaction with regression coefficient 0.015. Thus, the relationship between various factors of CRM and customer satisfaction in e-business organizations of Nepal is practically illustrated through this study.

## **5.2 Conclusions**

This research aimed to examine impact of various factors of CRM on Customer Satisfaction in e-commerce organizations in Nepal. Based on the analysis it can be concluded that all independent variables (Customer Service, Information Quality, Website Design, Payment System, Product Variation, Transaction Ability, Response, Security/ Privacy and Delivery) have a statistically linear relationship with dependent variable i.e., Customer Satisfaction in e-commerce organizations of Nepal. This means when the independent variables are improved then customer satisfaction increases and when the independent variables are degraded then the customer satisfaction decreases.

For the analysis we took the responses from 250 customers of various e-business organizations in Nepal. These data after various analysis we concluded that the factors of CRM greatly affect Customer Satisfaction in e-commerce organizations. From the regression analysis, we get the value of the probability of F-stat as 0.000 which is the result of ANOVA test and it is less than 0.001. Hence, we can conclude that there is significant impact of independent variables on the dependent variable. The Security/Privacy has the most powerful effect on the Satisfaction of the customers of e-commerce with regression coefficient value of 0.349. This is followed by Response with coefficient value of 0.160, transaction ability with coefficient value of 0.155 and so on. The value of regression coefficient for Customer Service, Information Quality and Website Design are lesser compared to the other variables especially that of Website Design. That is why the e-business organizations in Nepal should especially focus on Website Design, Information Quality and Customer Service in order to satisfy their customers.

Consumers are choosing a digitalized environment because of the growing changes that infrastructure, technology, and other factors are bringing about in society. Therefore, it has a significant influence on how marketers and consumers approach marketing. Companies that engage in e-commerce are increasingly important in the eyes of customers. E-commerce marketers are required to satisfy their clients through effective e-commerce websites and electronic relationship management that is to provide secured and reliable electronic transactions, quality customer service, responses to customer feedbacks, etc (Durai, 2017).

The e-commerce organization should make their website more user friendly. The information contained in the web site should be complete, precise and accurate. Likewise, e-commerce organization should work on the ways through which the customer service can be improved like follow up to the customers and expanding their services or products. The services of e-commerce organizations can also be upgraded with the use of new technology and applications that are essentials for interactions between customers and organizations.

Regarding relationship between CRM and Customer Satisfaction in e-commerce organization in Nepal, we have only a few studies to its credit. Nepal should do more study on relationship between CRM and Customer Satisfaction in e-commerce organization and put it into practice. This can help e-commerce organizations to know their weakness and various risk associated with customer

relationship management. Likewise, organizations will be able to develop proper marketing plan and high-quality products according to the market requirement. CRM initiatives help businesses improve customer value and service quality, which helps to increase customer satisfaction and retention. Through this study, we gained knowledge about the importance of IT in fostering intimate ties between e-commerce enterprises and their customers. IT facilitates good communication between e-commerce businesses, employees, and clients (Mkawuganga, 2018).

### **5.3 Implications**

Numerous studies have been done on the effects of different CRM parameters on customer satisfaction in e-commerce firms all over the world. However, there are very limited research carried out on the topic ‘Effect of CRM on Customer Satisfaction in e-business organizations’ in Nepal. This study is beneficial and significant to e-business organizations. It contributes to literature on the various factors of the Customer Relationship Management and their impact on the customer satisfaction in e-commerce organizations in Nepal. Based on the study, various implications have been offered for the organizations.

Researchers, e- businesses, IT companies and other service providers are all affected by the findings. The study is valuable to researchers in the nation who are investigating or will be studying the variables of CRM that affect customer satisfaction in e-commerce organizations in future. This study is beneficial to e-businesses and IT services providers because they will know the various dimensions of CRM and ways to deal them. This can finally assist to increase the customer satisfaction of the customers. Likewise, students who wish to finish their dissertations on the topic ‘Impact of CRM on Customer Satisfaction in e-commerce and IT organizations in Nepal’ might use this study as a wonderful resource.

Along with this, same study can be done in larger sample size for e-commerce organizations. Even this study of e-commerce organizations could be compared with business firm and other sectors that involves link between CRM and customer satisfaction.

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## Appendices

Dear Respondent,

I am a student of Master Degree in Business Administration and Information Technology (MBAIT) of School of Management, Tribhuvan University. As a partial fulfillment of the requirement for my degree of MBAIT, I am conducting my Graduate Research Project (GRP) on “Customer Relationship Management and Customer Satisfaction in E-business Organizations in Nepal” This questionnaire is designed to examine the relationship between various factors of CRM and Customer Satisfaction.

I will be grateful if you provide 10-12 minutes to answer the questions. Your information will be of great importance for my research. I assure that all the information that you have provided will remain confidential and will be used entirely for academic purpose only.

Thank You,

Dolma Tsering Gurung

Questionnaires

1. Age (multiple choice)

16-25, 26-35, 36-45, 46-55, above 56

2. Highest Qualification achieved. (short answer)

\_\_\_\_\_

3. State/Province (short answer)

\_\_\_\_\_

4. E-commerce organization/Online store you are dealing with. (e.g. hamrobazar.com, daraz.com, foodmandu, sastodeal.com, etc)

1. Please tick on 1 if you strongly disagree, 2 if you disagree, 3 if you are neutral, 4 if you agree, and 5 if you strongly agree on given statements.

S.N.	Questions	1	2	3	4	5
<b>A.</b>	<b>Customer Service</b>					
1.	The organization take care of customers' problems promptly.					
2.	The organisation's site is up and running all the time.					
3.	I am allowed to take my own time in selecting the products according to my needs.					
4.	The organization is willing to help customers and provide prompt service.					
5.	The services of e-commerce company is available 24x7 and is less time-consuming for customers.					
6.	Company gives follow up to customer requests well in time.					
7.	Company focus on fair treatment to its customers.					
<b>B.</b>	<b>Information Quality</b>					
1.	The information on the website facilitates buying the products or services that it sells or markets.					
2.	The website does not necessarily have to provide the up to-date products and services information.					
3.	The organisation can get any information about customers regarding their choice of purchases.					
4.	The website provides the relevant products/services information.					
5.	I purchase products by seeing the product details provided in the websites.					
<b>C.</b>	<b>Website Design</b>					
1.	Information Content and texts are easy to understand and clear.					
2.	The web site is easy to navigate.					
3.	Due to the great work of graphics the website looks appealing.					
4.	The menu items are easily accessible from any page of the web sites.					
5.	The website contains all the necessary information required for the customers.					
6.	I find it easier to look for and choose the appropriate goods because of website's design.					

<b>D.</b>	<b>Payment System</b>					
1.	The company has various online payment gateway for purpose of payment like e-sewa, Khalti, E-Pay, etc in their website.					
2.	The online payment system has made my financial transactions easy and reliable.					
3.	The payment gateway service is secure and functions smoothly.					
4.	The payment procedure is faster and simple to carry.					
<b>E.</b>	<b>Product Variation</b>					
1.	I can understand product at a glance from its size and colors.					
2.	I purchase repeatedly from same company due to availability of different color and size of the products.					
3.	I find products of different color and sizes by just searching in the company's websites.					
4.	Customers are free to take their own time in selecting the products according to their needs.					
<b>F.</b>	<b>Transaction Ability</b>					
1.	The smooth transaction ability of website has allowed me to make online payment without any problems.					
2.	The transaction ability of website encourages me to purchase online without having to visit the shops.					
3.	There are not any errors in the billing of the products purchased online.					
<b>G.</b>	<b>Response</b>					
1.	The company responds to the queries and complaints of the customers instantly.					
2.	Company responds considering my feedbacks or responses.					
3.	I am dissatisfied when the company do not provide services as my requirements.					
4.	The company interact with customers in a polite manner.					
<b>H.</b>	<b>Security/Privacy</b>					
1.	The website has sufficient technical capacity to ensure that the data I send cannot be modified by hackers.					
2.	The organization compensate for the problem they create.					
3.	The site provides a confirmation of the service ordered.					
4.	The organization's site shows care in how it collects your personal information.					
5.	While purchasing online, there is risk of identity theft.					
6.	The organization takes care of the security of confidential data of the customer.					

<b>I.</b>	<b>Delivery</b>					
1.	During online shopping, I am anxious whether the ordered product will be as the expected.					
2.	I can get on-time delivery through e-commerce.					
3.	The option free delivery in ecommerce increases the number of customers.					
4.	Online purchase makes me feel concerned about delivering the wrong product.					
5.	Online shopping and services delivery are available even on Saturday.					
<b>J.</b>	<b>Customer Satisfaction</b>					
1.	How satisfied are you with organisation's payment system?					
2.	How satisfied are you with the information you receive and the timeline of the organisation in responding to your needs?					
3.	How satisfied are you with organisation's range of services/ products?					
4.	I am satisfied with the quality of services I receive from the organization.					
5.	I am satisfied with the safe and secure transactions provided by online payment gateway of organization.					
6.	I am satisfied with the way the organization secure my data.					
7.	I am satisfied with the design and responsive nature of the website.					
8.	I am satisfied with the delivery services of the organization.					