

BUILDING E-LOYALLTY, SATISFACTION AND TRUST BY ENHANCING  
ONLINE CUSTOMER EXPERIENCE  
IN SRI LANKAN E-COMMERCE PLATFORMS

By

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## Declaration

I, T. Rikas Ahamed - 2015/IS/002 hereby certify that this dissertation entitled “Building E-Loyalty, Satisfaction and Trust by Enhancing Online Customer Experience in Sri Lankan E-Commerce Platforms” is entirely my own work and it has never been submitted nor is currently been submitted for any other degree.

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## ABSTRACT

This study aimed to analyze several aspects with customer experience, and its relationship to Sri Lankan customers' e-loyalty. Customer experience is a substantial and comprehensive concept, where we decided to narrow the research to investigate the following aspects; privacy, ease of use, security and user interface quality. Hence, we suggest which factors that have an impact on customer loyalty with online stores. In addition, we included two mediators; satisfaction and trust, for assessing any mediating effect on the relationship between the customer experience factors and e-loyalty. Through our in-depth interviews, we found results suggesting that the customers are relatively secure and are trusting the online stores when purchasing. In addition, the respondents from the in-depth interviews reported that the user-friendliness of the digital platform, is an important factor when purchasing, and it might have an effect on the consideration of repurchase. Based on the findings from the literature and past researches, we managed to develop a model which includes the relationships between customer experience, satisfaction, and e-loyalty. In order to test the model, we conducted a quantitative research through an online survey, where we received 153 valid answers. The quantitative research describes a positive relationship between all of our customer experience factors towards e-loyalty. This indicates that Privacy, ease of use, security and user interface quality have a causal relationship to and an impact on customer e-loyalty. However, we found only satisfaction to have a significant mediating effect in the relationship between ease of use, security and user interface quality and e-loyalty. Having satisfaction as a mediator, all of the explanatory power for the representative factors and e-loyalty has been increased. This tested model can be utilized to enhance the customer loyalty within online stores in Sri Lanka. We developed a prototype of e-commerce platform where the output results from the customer experience model is used as a measure of e-loyalty. Hence, e-loyalty is being enhanced.

**Keywords:** Customer experience, e-loyalty, privacy, ease of use, security, user interface quality, satisfaction, trust.



# Table of contents

|                                                |    |
|------------------------------------------------|----|
| <b>List of figures</b>                         | x  |
| <b>List of tables</b>                          | x  |
| <b>Acronym</b>                                 | xi |
| <b>1 Introduction</b>                          | 1  |
| 1.1 Problem Statement . . . . .                | 2  |
| 1.2 Research Questions . . . . .               | 2  |
| 1.3 Background of the Problem . . . . .        | 3  |
| 1.4 Goals and Objectives . . . . .             | 4  |
| 1.5 Research Approach . . . . .                | 5  |
| 1.6 Scope . . . . .                            | 7  |
| 1.7 Delimitations . . . . .                    | 8  |
| 1.8 Research Contributions . . . . .           | 8  |
| <b>2 Background</b>                            | 9  |
| 2.1 Customer Experience . . . . .              | 9  |
| 2.2 E-Loyalty . . . . .                        | 10 |
| 2.3 Satisfaction . . . . .                     | 12 |
| 2.4 Trust . . . . .                            | 12 |
| 2.5 User Characteristics . . . . .             | 13 |
| 2.6 Perceived Privacy . . . . .                | 14 |
| 2.7 Ease of Use . . . . .                      | 15 |
| 2.8 Perceived Security . . . . .               | 16 |
| 2.9 User Interface Design Dimensions . . . . . | 18 |
| 2.10 User Interface Quality . . . . .          | 23 |
| 2.11 Summary of Hypothesis . . . . .           | 24 |
| 2.12 Customer Experience Model . . . . .       | 25 |

|                                                        |           |
|--------------------------------------------------------|-----------|
| <b>3 Methodology and Design</b>                        | <b>27</b> |
| 3.1 Type of Study . . . . .                            | 27        |
| 3.2 Research Design . . . . .                          | 27        |
| 3.3 Qualitative Design . . . . .                       | 28        |
| 3.3.1 Qualitative Interview Development . . . . .      | 28        |
| 3.3.2 Sample . . . . .                                 | 28        |
| 3.3.3 Validity and Reliability . . . . .               | 29        |
| 3.4 Quantitative Design . . . . .                      | 31        |
| 3.4.1 Population . . . . .                             | 31        |
| 3.4.2 Sample and Sampling Techniques . . . . .         | 31        |
| 3.4.3 Research Context . . . . .                       | 33        |
| 3.4.4 Type of Research Data . . . . .                  | 33        |
| 3.4.5 Survey Development and Data Collection . . . . . | 33        |
| 3.4.6 Research Variable and Measurement . . . . .      | 35        |
| 3.4.7 Validity and Reliability Test . . . . .          | 36        |
| 3.4.8 Pre/Pilot Test . . . . .                         | 38        |
| 3.4.9 Data Analysis Technique . . . . .                | 38        |
| <b>4 Analysis and Results</b>                          | <b>43</b> |
| 4.1 Qualitative Analysis . . . . .                     | 43        |
| 4.1.1 Cognitive . . . . .                              | 43        |
| 4.1.2 Affective . . . . .                              | 44        |
| 4.1.3 Trust . . . . .                                  | 44        |
| 4.1.4 Social . . . . .                                 | 44        |
| 4.1.5 Extrinsic Attribute . . . . .                    | 45        |
| 4.1.6 Customer Experience . . . . .                    | 45        |
| 4.1.7 Loyalty . . . . .                                | 45        |
| 4.2 Quantitative Analysis . . . . .                    | 46        |
| 4.2.1 Descriptive Statistics . . . . .                 | 46        |
| 4.2.2 Multiple Regression . . . . .                    | 49        |
| 4.2.3 Linear Regression and Mediation . . . . .        | 50        |



|                                                                                  |            |
|----------------------------------------------------------------------------------|------------|
| 4.2.4 Summary and Main Findings . . . . .                                        | 57         |
| 4.3 Enhancing e-Loyalty with Prototype . . . . .                                 | 58         |
| <b>5 Discussion</b>                                                              | <b>59</b>  |
| 5.1 The Impact of Privacy on e-Loyalty . . . . .                                 | 60         |
| 5.2 The Impact of Ease of Use on e-Loyalty . . . . .                             | 60         |
| 5.3 The Impact of Security on e-Loyalty . . . . .                                | 60         |
| 5.4 The Impact of User Interface Duality on e-Loyalty . . . . .                  | 61         |
| 5.5 Satisfaction Mediates the Impact of Customer Experience Dimensions . . . . . | 61         |
| 5.6 Trust mediates the Impact of Customer Experience Dimensions . . . . .        | 62         |
| <b>6 Conclusion and Recommendation</b>                                           | <b>63</b>  |
| 6.1 Conclusion . . . . .                                                         | 63         |
| 6.2 Managerial Implications . . . . .                                            | 64         |
| 6.3 Limitations and Future Research . . . . .                                    | 66         |
| <b>References</b>                                                                | <b>69</b>  |
| <b>Appendix 1 In-depth Interview guide</b>                                       | <b>79</b>  |
| <b>Appendix 2 In-depth Interviews</b>                                            | <b>80</b>  |
| <b>Appendix 3 Scale Development</b>                                              | <b>88</b>  |
| <b>Appendix 4 Questionnaire</b>                                                  | <b>90</b>  |
| <b>Appendix 5 Outputs – Methodology</b>                                          | <b>101</b> |
| <b>Appendix 6 Outputs – Results</b>                                              | <b>107</b> |
| <b>Appendix 7 Developed Prototype</b>                                            | <b>118</b> |



## List of figures

|                                                                                                                                            |    |
|--------------------------------------------------------------------------------------------------------------------------------------------|----|
| 1.1 Overall Research Design and Approach . . . . .                                                                                         | 5  |
| 1.2 System Development Research Approach . . . . .                                                                                         | 6  |
| 1.3 Work Breakdown Structure . . . . .                                                                                                     | 7  |
| 1.4 Gantt Chart . . . . .                                                                                                                  | 8  |
| 2.2 Proposed Conceptual Framework/Model with Hypotheses . . . . .                                                                          | 25 |
| 4.1 Conceptual Framework of e-Loyalty . . . . .                                                                                            | 51 |
| 4.2 Unstandardized Coefficients for the Relationship between Privacy and E-Loyalty                                                         | 51 |
| 4.3 Unstandardized Coefficients for the Relationship between Privacy and E-Loyalty,<br>Mediated by Satisfaction . . . . .                  | 52 |
| 4.4 Unstandardized Coefficients for the Relationship between Privacy and E-Loyalty,<br>Mediated by Trust . . . . .                         | 52 |
| 4.5 Unstandardized Coefficients for the Relationship between Ease of Use and<br>E-Loyalty . . . . .                                        | 53 |
| 4.6 Unstandardized Coefficients for the Relationship between Ease of use<br>and E-Loyalty, Mediated by Satisfaction . . . . .              | 54 |
| 4.7 Unstandardized Coefficients for the Relationship between Security and<br>E-Loyalty . . . . .                                           | 54 |
| 4.8 Unstandardized Coefficients for the Relationship between Security and<br>E-Loyalty, Moderated by Satisfaction . . . . .                | 55 |
| 4.9 Unstandardized Coefficients for the Relationship between Security and E-Loyalty<br>Moderated by Trust . . . . .                        | 55 |
| 4.10 Unstandardized Coefficients for the Relationship between User Interface<br>Quality and E-Loyalty . . . . .                            | 56 |
| 4.11 Unstandardized Coefficients for the Relationship between User Interface<br>Quality and E-Loyalty, Moderated by Satisfaction . . . . . | 57 |



## List of tables

|                                                                                   |    |
|-----------------------------------------------------------------------------------|----|
| 2.1 Online Customer Experience Factors Towards Loyalty and their References . . . | 10 |
| 2.2 Classification of Trust-Inducing Website Design Dimensions . . . . .          | 19 |
| 2.3 Hypothesis Summary . . . . .                                                  | 24 |
| 3.1 Sample Characteristics . . . . .                                              | 29 |
| 3.2 Coded Sample Characteristics . . . . .                                        | 32 |
| 4.1 Weighted Average of Factors Earlier and After with Prototype . . . . .        | 58 |



## Acronym

|       |                                       |
|-------|---------------------------------------|
| SEM   | Structural Equation Model             |
| UIQ   | User Interface Quality                |
| MSE   | Mean Squared Error                    |
| RMSEA | Root Mean Squared Error Approximation |
| VIF   | Variance Inflation Factor             |





# Chapter 1

## Introduction

Since the usage of internet has been increased over the past years [1] and people are motivated to use e-commerce applications. E-commerce has undoubtedly become a key element in every modern retail goods and service portfolio during the last two decades [2]. There is a significant number of consumers who have to deal with online transactions in e-commerce applications. [3]

In recent years, online customer loyalty (also known as e-loyalty) has become an increasingly more important topic, both for managers and researchers. The introduction of the internet has facilitated retailers to reach a broader audience by launching online stores either as an extension to physical stores or solely as an independent online-store [4]. This has, in turn increased the competition amongst the online stores, as the consumers are exposed to an extensive number of products and services from all over the world [5].

The e-commerce business has changed the dynamics purchasing habits of the consumers [4]. This has affected the relationship between consumer and retailer, making it harder to retain a loyal customer base [6]. More consumers tend to do the majority of their purchases online rather than in a physical store [7].

Consumers have a large variety of goods and providers to choose amongst when shopping online. Consumers tend to use various devices such as tablets and phones when making an online purchase, being enabled to more easily find and compare offerings and thus switch to a new brand

[4], [6], [7]. The cost of switching brands for a consumer is relatively lower, compared to the higher cost for a company to acquire a new online customer [6]. This consequently makes it essential for a company to create and maintain a loyal customer base [5].

The change of habits has made it more difficult for the retailers to succeed, as the retailers must interact with their online customers in a different way than they are used to with consumers in a physical store [4]. Building and maintaining customer loyalty has been recognized to be an important success factor in establishing a sustainable competitive advantage [8], [9]. However, the increased number of products offered to the consumers has amplified the consumers' expectations, as people instinctively compare products and experiences, either positive or negative, with previous experiences and judges it accordingly [10]. The consumers' expectations are in other words shaped by their previous experiences regarding products or services from a company or brand.

## 1.1 Problem statement

Even though much of the prior research [13], [14] has found significant relationships between satisfaction, trust, and loyalty, there are nevertheless aspects of customer loyalty that has yet to be explored. Previous research has made many contributions to what factors that can affect e-loyalty; however, the different models and researchers have paid an emphasis on various aspects. In light of these insights, there is a need for a deeper understanding of which factors that have an influence on e-loyalty with current consumers, especially within the Sri Lankan e-commerce market. In this research, the aim is, therefore, to develop a framework combining the factors that have been proven to have an effect on loyalty. Drawing on extensive literature from both an online and offline perspective, the new model will contribute to a deeper and better understanding of the relationships and effects tied to online customer loyalty in the Sri Lankan marketplace.

## 1.2 Research Question

Our research is directed to analyze the actual impact on e-loyalty by user experience, trust and satisfaction in an e-commerce online store. With this intention we have planned to answer the question, **how to enhance e-loyalty, digital trust and satisfaction in e-commerce platforms by building better user experience?**

In the process of filling the gap of knowledge and getting a sound understanding of the user experience, trust and satisfaction, it is important to precisely understand about the factors related with e-customer experience and e-loyalty. Therefore, it is needed to know,

### **1. What factors can influence e-customer experience and e-loyalty in the context of e-commerce platforms?**

After the identification of the factors to measure customer experience and e-loyalty in e-commerce platform, it is possible to map an integrated relationship among those identified factors. Therefore, it is needed to know,

### **2. How do derive a theoretical framework using the factors identified in sub question 1?**

In order to study customers' behaviors towards e-loyalty and customer experience in e-commerce platforms, a theoretical framework needs to be developed using the factors identified. Qualitative and quantitative analysis using data collected through both interview and online survey questionnaire are used to analyse and test the framework. An attempt to be made to enhance e-loyalty and customer experience of an e-commerce platform using the results from the analysis. Therefore, it is needed to know,

### **3. How to design and develop prototype of an e-commerce platform considering the factors identified in sub question 1?**

In order to enhance e-loyalty and customer experience, prototype of an e-commerce platform is developed using information system development approach [11] with the intension of enhancing e-loyalty and customer satisfaction with regards to Sri Lankan e-commerce customers. Online questionnaire survey along with the prototype will be given to defined sample participants to test the enhancement.

## **1.3 Background of the Problem**

The growth of the e-commerce business, facilitating a more competitive marketplace, has thus magnified the importance of building a loyal customer base in an online environment [8]. Past research reveals that effective retail management can be linked to the creation of a good customer experience, resulting in a profitable outcome for a company [5], [12], [14]. For a company to be able to succeed and thus maintain a loyal customer base, it is, therefore, crucial to have a product that stands out from the competition as well as meeting the expectations of the customers [12].

In terms of literature, it can seem like the factors affecting e-loyalty of customers have been puzzling researchers and scholars over the last decade. The research done so far has investigated some of the underlying factors that can be linked to loyalty and e-loyalty, such as the affective and cognitive state of the consumer, trust, satisfaction, and attributes related to the look and

performance of the online store [6], [8], [14]-[17]. Customer satisfaction and customer behavior have been recognized to be good ways of measuring customer loyalty [18]. Furthermore, customer experience has been suggested to be a driver of satisfaction, which in turn drives loyalty in an offline context [19]. On the other hand, the relationship between loyalty and satisfaction has been acknowledged by researchers, linking the two aspects together, both in an online and offline setting [20].

Many marketing scholars have highlighted the importance of trust as a key predictor of loyalty [21]-[23]. The e-customer needs high trust level with regard to their information shared in e-commerce platforms [24]. The e-customer leaves the site if no trust is developed with online store. The trust worthy and secure completion of online shopping transactions contain activities such as filling out of forms which needs personal information, using username and password to manage accounts. If trust is not built, e-customers avoid and leave the site without purchasing anything [25]. The development of e-customer trust towards the websites is an important and challenging task for the designers.

This applies in particular for the example of e-commerce, where a highly user-friendly infrastructure has to provide simultaneously a high level of usability to its large number of non-expert users. To enhance satisfaction in e-commerce platforms, overcome current usability issues ultimately improves these systems, the understanding of the relationship between user interfaces and users trust with satisfaction in this context needs to be further deepened, formalised and related to a real-world context.

## **1.4 Goals and Objectives**

The goal of this study is to investigate how consumers experience relate with e-loyalty, and thus what factors affect the consumers to become loyal towards an online retailer. The objectives for this study are therefore to:

- a. Identify what factors can influence e-customer experience and e-loyalty in the context of e-commerce platforms,
- b. Develop a theoretical model incorporating factors of online customer experiences that most likely leads toward online or e-loyalty,
- c. Test the model by conducting quantitative research to find relationships between the factors,

- d. Design and develop a prototype of an e-commerce platform incorporating the factors of online customer experiences and e-loyalty that most likely leads toward online or e-loyalty, and
- e. Test for enhancement of e-loyalty towards the developed prototype by conducting online questionnaire survey.

## 1.5 Research Approach

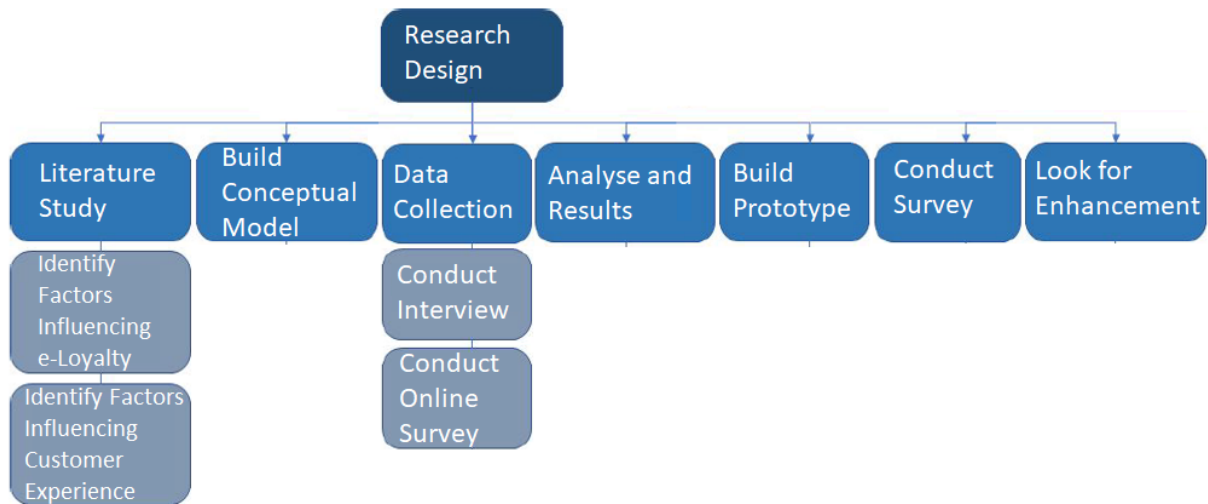


Fig 1.1 Overall Research Design and Approach

The research was divided into four main parts; literature review, deriving knowledge to create online customer experience model, empirical part which comprising the interviews and observations to test the model and developing an ecommerce prototype to enhance e-loyalty. As it is shown in figure 1.1, Initially extensive literature review will be conducted to study the different concepts of user experience, user trust, user satisfaction and user interface design theories. This study focuses on identifying what factors influence e-loyalty and customer experience in an e-commerce environment. The factors of e-loyalty, trust, user satisfaction and online customer experience factors will be the outcome of this step.

In the second step the relationship between customer experience factors, trust and user satisfaction towards loyalty will be modeled as a theoretically explainable framework/model and a set of hypotheses will be developed.

In the third step, a mix research approach [26] i.e. qualitative and quantitative approaches will be adopted for this thesis. As a research methodology, observations and interviews were used along with a questionnaire as the data collection instruments. Interviews for qualitative analysis to

ensure the conceptual model and an online survey for quantitative analysis to test those hypotheses in the developed conceptual framework will be conducted

Finally, as shown in figure 1.2, a prototype of an e-commerce platform is designed and developed using system development method approach [11] to enhance e-loyalty. Conducting a survey again along with the developed prototype to test enhancement of e-loyalty, satisfaction, trust and customer experience.

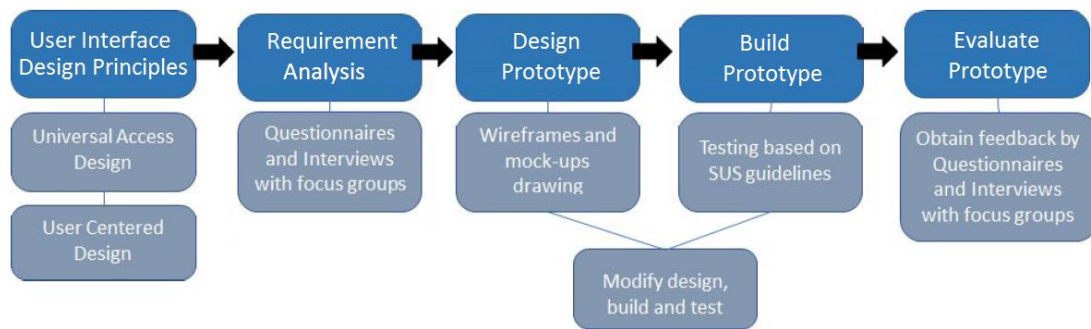


Fig 1.2 System Development Research Approach

**Conceptual framework:** The research question will be discussed in the context of an appropriate conceptual framework or a design principle which shall be incorporated in the new system.

**Develop a prototype architecture:** Requirements will be defined so that they are measurable and thus can be validated at the evaluation stage. Functions and interactions among prototype components with constraints imposed by the environment to be clearly identified.

**Design the prototype:** Alternatives will be proposed and explored and final design decision should be made.

**Build the prototype:** Prototype will be developed with the intention of demonstrating the feasibility of the design and the usable security.

The data gathered through interviews and observations is analyzed by using the Grounded Theory. Grounded Theory (GT) is very suitable for exploratory type of studies where the researchers do not have any prior knowledge [27]. GT is a qualitative research methodology which systematically analyzes the data and contributes in generation of theory [27]. Barney Glaser and Anselm Strauss developed GT in 1967 during the research project [27]. GT helps to interpret and analyze the data by converting the raw data into code, concepts and then categories. Different methods are used to collect the qualitative raw data such as interviews, observation and extensive literature review.

## 1.6 Scope

- Factors influencing e-loyalty of e-commerce platform is identified
- Factors influencing customer experience of e-commerce platform is identified
- Developing a theoretically explainable conceptual model/framework for online customer experience
- Conducting interviews for qualitative analysis to ensure the conceptual model
- Conducting online survey for quantitative analysis to test the developed conceptual model.
- Developing a prototype of an e-commerce platform that supports to study the factors related with loyalty, trust, satisfaction and customer experience.
- Conducting a survey along with the developed prototype to ensure the results from both qualitative and quantitative analyses and enhance e-loyalty, satisfaction, trust and customer experience.

### 1.6.1 Work Breakdown Structure

Following figure 1.3 shows how the research work can be divided into components.

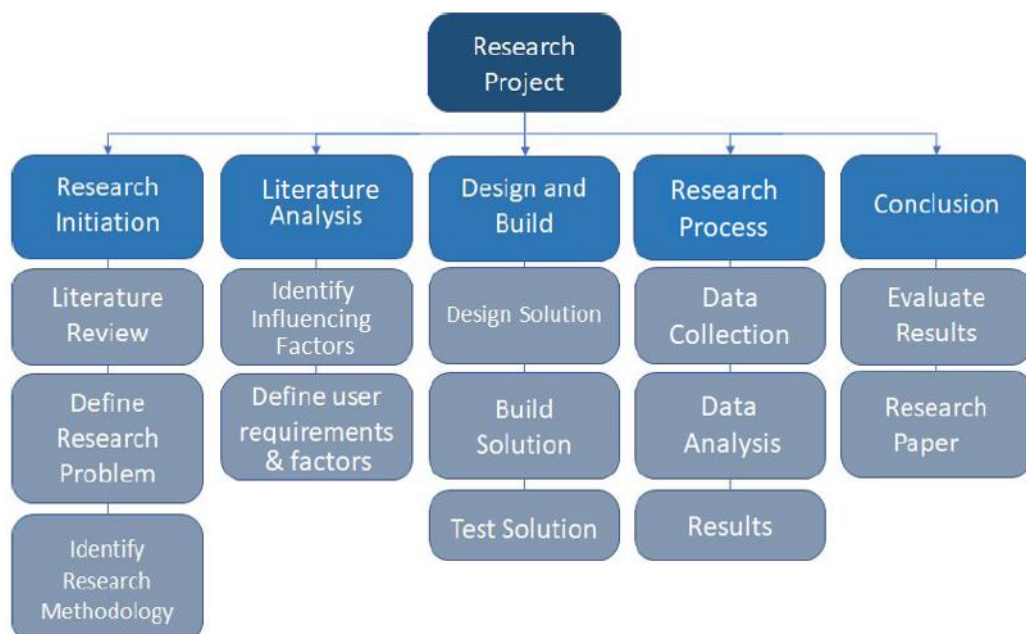


Fig 1.3 Work Breakdown Structure

## 1.6.2 Timeline of the Project

Following figure 1.4 shows how the research work will be allocated within the time assigned.

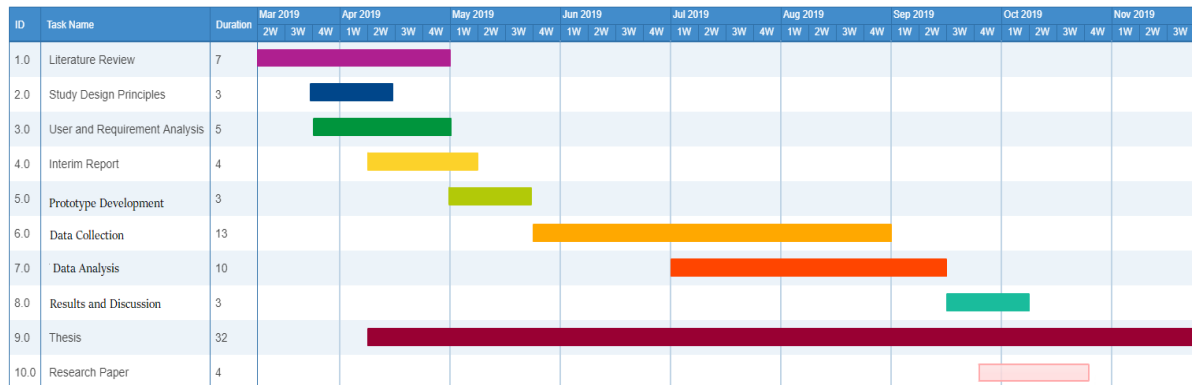


Fig 1.4 Gantt Chart

## 1.7 Delimitations

- Even if there are many factors incorporating with e-loyalty, trust and satisfaction, this thesis mostly considers system related factors only.
- Consideration is not to test the backend or the technical matters of a system; it is considered that the system is technically qualified for use.
- Focus is only towards system related factors influencing e-loyalty and online customer experience in e-commerce platforms.

## 1.8 Research Contributions

Developing a theoretically explainable conceptual model/framework for online customer experience in order to contributing to the knowledge base of factors influencing e-loyalty and customer experience of e-commerce. A prototype of an e-commerce platform that supports to study the factors related with loyalty, trust, satisfaction and customer experience will help enhancing e-loyalty, satisfaction, trust and customer experience.

Furthermore, this research will enhance the knowledge of the particular research field among the research community specially in human computer interaction as well as the apparel industry while contributing to the betterment of the community via strengthening the existing literature using the proposed solution.



# Chapter 2

## Background

A comprehensive review of the most important contributions to academic literature concerning the causal relationships between e-loyalty and its antecedents is reported here.

### 2.1 Customer experience

Customer experience is an important concept that has become a central objective in today's retail environment both in physical stores as well as in online stores [12]. Meyer & Schwager [10] defines customer experience as an internal and subjective response a consumer has when being in direct or indirect contact with a firm or brand. However, in regards to an online environment, the literature suggests that past experiences influence future online behavior [14]. Thus, the total experience a consumer has when making an online purchase can influence the consumer's future purchase intention with the given brand or firm.

Studies have shown that the creation of customer experience can be linked to effective retail management, which in turn leads to positive performance and outcomes for the retailer [5], [12], [14], [28], [29]. Literature suggests that customer experience is an important driver of customer satisfaction and trust, which in turns drive loyalty [19]. Examining prior research, we found several models [6], [8], [13]-[16], [19] that has assessed the relationship between customer experience and loyalty, enabling us to determine which factors that were relevant in this thesis.

Past research has suggested satisfaction and trust as antecedents of online loyalty [14], [30]. Hence, we want to analyze the relationship between our selected aspects of online customer experience and online customer loyalty. Additionally, we want to assess the relationship for the selected aspects indirect effect on loyalty through trust and satisfaction. Many of the existing models are examining various factors of online customer experiences, leading towards e-loyalty. Examining previous research as listed in table 2.1 regarding both online and offline loyalty, we have developed a model that combines different factors that have been recognized to affect customer loyalty. These factors are;

*ease of use, security, user interface quality, privacy, trust, and satisfaction.*

| <b>Online customer experiences that have been recognized to affect loyalty</b> |                                                                                                                                                      |
|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                | <b>References</b>                                                                                                                                    |
| <b>Ease of Use</b>                                                             | Dhiranty, Suharjo, & Suprayitno, 2017; Gommans et al., 2001; Rose et al., 2012; Valvi & Fragkos, 2012                                                |
| <b>Security</b>                                                                | Gommans et al., 2001                                                                                                                                 |
| <b>User Interface Quality</b>                                                  | S. C. Chen, 2012; Klaus & Maklan, 2013                                                                                                               |
| <b>Privacy</b>                                                                 | Park and Kim, 2003                                                                                                                                   |
| <b>Trust</b>                                                                   | S. C. Chen, 2012; Dhiranty et al., 2017; Gommans et al., 2001; Klaus & Maklan, 2013; Rose et al., 2012; Valvi & Fragkos, 2012                        |
| <b>Satisfaction</b>                                                            | S. C. Chen, 2012; DeLone & McLean, 1992; Dhiranty et al., 2017; Klaus & Maklan, 2013; Rose et al., 2012; Shankar et al., 2003; Valvi & Fragkos, 2012 |

Table 2.1 Online Customer Experience Factors Lowards Loyalty and their References

## 2.2 E-Loyalty

The concept of online loyalty extends the traditional concept of loyalty to online customer behavior [31]. Traditionally, literature suggests that loyalty is essentially about the consumer attitude and repeat purchase behavior, thus e-loyalty can be defined as the “customer’s favorable attitude toward an electronic business resulting in repeat buying behavior” [17]. E-loyalty has been recognized to be an important success factor in establishing sustainable competitive advantage [9], [31]. Generally, the underlying theoretical foundations of traditional loyalty and e-loyalty are similar. However, there are some unique aspects concerning online purchases that need to be taken into account when pursuing e-loyalty. Loyalty in an online environment can be described as an

evolution from a traditional product driven and marketer-controlled concept, towards a more technology facilitated, and consumer controlled and oriented concept [18]. Schefter & Reichheld [32] discusses that e-loyalty is essentially about compelling product presentations, on-time-delivery, customer handling/support, reasonably priced and convenient delivery, in addition to a clear and trustworthy privacy policy. In a more theoretical approach, Gommans et al. [8], specify that factors such as the website and technology, customer service, trust, and security influence customer loyalty online.

Companies are dependent on recruiting and retaining a loyal customer base to be successful [5]. It is therefore crucial that online retailers pay attention to their customers, and make sure to maintain their loyal customer base. Researchers have proposed various frameworks illustrating several factors that lead to customer loyalty in an online environment [6], [13], [14], [19]. These conceptual frameworks suggest that there are various factors that affect consumer loyalty in an online environment. Rose et al. [14] confirmed the relationship between satisfaction, trust and repurchase intention. They also found that the online customer experience is shaped by the customers' affective- and cognitive experiential state, where customer satisfaction and trust acts as mediators between e-loyalty and the costumers' affective and cognitive experiences of online shopping. Furthermore, Valvi & Fragkos's [6] conceptual framework proposes that the path to online repurchases goes through three stages; pre-purchase, during-purchase, and after-purchase. These steps include important factors such as e-reputation, the customer's pc-knowledge, and the web page's design, leading to trust and satisfaction, and eventually resulting in online loyalty.

While Rose et al. [14] and Valvi & Fragkos's [6] framework have taken important factors of the customer experience online into consideration when building an e-loyalty framework, Chen [13] and Shankar et al. [19] have taken another approach. Instead of focusing on the underlying factors affecting trust and satisfaction, ultimately leading to e-loyalty, Chen [13] has focused on mediating factors between satisfaction and loyalty. Shankar et al.s' [19] research has covered the underlying factors of satisfaction, finding relationships between service encounter satisfaction and overall satisfaction, leading to loyalty.

These frameworks and others have found several interesting findings concerning online loyalty. However, the e-commerce business is a constant change, as the consumers gain more trust in online shopping, and more companies have started to pay more attention to the online market. This entails that there is a continuous need for research and insights regarding customer loyalty online. Examining the existing literature, we have found that researchers have focused on different aspects that affect e-loyalty.

## 2.3 Satisfaction

Customer satisfaction can be defined as the overall customer satisfaction with the expectations and the consumption experience [33]. Furthermore, Meyer & Schwager [10] defines customer experience as an internal and subjective response a consumer has when being in direct or indirect contact with a firm or brand. This entails that satisfaction can be a function of disconfirmation, a function of both performance and experience [34]. Thus, one can, therefore, define online customer satisfaction as the satisfaction of a consumer in light of previous consumption experiences with an online retailer [36].

Oliver [34] states that a key to customer loyalty is to satisfy the customer needs and wants. Overall satisfaction has been found to enhance the customer loyalty, both in an online and offline context, however, the relationship between satisfaction and loyalty can be stronger online than it is offline [19]. Past research has differed in terms of the effect and relation of satisfaction on loyalty. Oliver [35] found that loyalty only can be achieved when other underlying factors of satisfaction, such as an embedded social network, are included. In an ecommerce context, similar findings have been revealed [14]. On the contrary, Jones & Sasser [37] discovered that the relationship between satisfaction and loyalty are dependent upon the competitive intensity and structure of the market.

Furthermore, more recent research suggests that consumer does not consider themselves as loyal to an online store they frequently purchase from, despite being highly satisfied [35]. Despite this finding, one can argue that a dissatisfied online customer is more likely to search for alternatives, thus being more likely to switch to another online provider and resist from making a new purchase from the dissatisfactory provider [36].

These findings constitute an uncertainty of the relationship whereas satisfaction is a mediator between customer experience and loyalty in an online environment. The overall customer satisfaction has been recognized to have a strong and positive effect on loyalty in an offline context, suggesting that satisfaction can be a mediator between customer experience and loyalty [18], [38]. Based on these insights, we will examine the mediating effect of satisfaction on the relationship between customer experience and loyalty in an online context.

## 2.4 Trust

Trust has been defined as the consumers' expectations of a provider to be dependable and reliable to deliver as promised [22]. Drawing on this, trust can be described as a "belief in the e-retailer's ability to fulfill its obligations in a commercial relationship with its customers" in an

online environment [13]. The consumers' trust has been recognized to play an important role in generating online loyalty [8], [13], [31]. This is because online stores can prohibit or discourage consumers from switching to another brand or provider by engendering the trust [39]. Thus, one can argue that trust might be more important for online retailers versus a traditional retailer.

Considering if you should have trust in an online store or not, is majorly affected by previous encounters and experiences, or other customers' reviews of the online store [34]. Past research suggests that there is a larger likelihood and thus willingness of a consumer to purchase from an online retailer if the trust is present [13]. Consumers tend to perform with caution when they perceive any type of risk, the possibility that the purchase not completely will answer to their expectations [40]. Hence, the perceived risk of an intentional purchase might have a significant influence on customer behavior, including loyalty. Reducing the customer's perceived risk of the purchase will expand to create a relationship and node between the customer and an online store, empowering the ability to create a relationship on trust.

Forsythe & Shi [41], conducted a research where they examined risk perceptions in Internet purchasing, and which type of risk the different determined groups perceived the most. The results revealed that 18 different types of risk were associated with online purchases, with the most important being product performance risk (product quality). Furthermore, the research stated that heavy shoppers tend to make a purchase online, once they have made a decision to purchase. On the other hand, the moderate shoppers only make an online purchase half of the times or less when they intend to purchase, while the browsers do not tend to purchase at all [41]. The research revealed that heavy shoppers perceive a lower degree of risk in all the risk categories, in contrast to the browsers and moderate shoppers. This can suggest that consumers who frequently purchases online assign more trust in online stores, and that their trust increases with their frequency and experiences of online purchases.

Based on these insights, it seems like trust is an important factor when purchasing online, and we want to explore the possibility of trust being a moderator between different customer experiences and e-loyalty.

## **2.5 User Characteristics**

Many studies have been concerned with identifying the characteristics of online customers. Factors investigated in this respect have included demographics [42], psychographics [43], and attitudes [44]. For example, Verchopoulos et al. [42] found that adopters of Internet shopping in Greece have generally been young, highly, educated, high-income earning males who have

previously used it. Sin and Tse [43] found that adopters in Hong Kong have similar demographic profiles, in addition to being more time-conscious, self-confident, and heavier users of the Internet. In the case of Saudi Arabia, Abdul-Muhmin and AL-Abdali [45] found that the adoption of B2C e-commerce is greater among older, highly educated, high-income respondents.

All consumers are different and these differences can affect a consumer's trust online. Friedman et al. note "...people can engage in virtually identical online interactions, yet reach widely disparate judgments about whether the interactions are trustworthy" [46]. We all possess individual characteristics that affect our decision to trust [47], [48] and these characteristics can include the age, experience, occupation, and disposition to trust of the consumer [49].

## **2.6 Perceived Privacy**

Perceived privacy refers to a consumer's perception of the likelihood or intention of Internet vendors in protecting the consumers' personal information, which is collected during electronic transactions. The information is protected from unauthorized use or the disclosure of confidential information. At the time of a transaction, the online seller collects the names, e-mail addresses, phone numbers, and home addresses of buyers. Some sellers pass the information on to telemarketers. These increasing consumer concerns are forcing sellers to consider privacy protection measures to increase their trustworthiness and thereby to encourage online transactions at e-shops.

Consumers often perceive that one of the obligations of a seller is that the seller should not share or distribute the buyer's private information. Since this is perceived as an obligation that the seller has under the contract, buyers will be more likely to trust a seller who is perceived as willing to protect privacy. Thus, customers are concerned about online retailers who do not provide any clear statements or documentation about their privacy policy [50], [51].

The concern about specifying personal information on the internet is represented in a significant part of the customers [50], [51]. One can easily see a relationship between the security aspect and the companies' trustfulness, leading the customers to associate a company they can trust, with a company they can share their personal information with.

Consumer privacy, as termed by Goodwin [52], is "the consumer's ability to control (a) the presence of other people in the environment during a market transaction or consumption behavior, and (b) dissemination of information related to or provided during such transactions or behaviors to those who were not present". Perceived privacy on the other hand, is defined by

Yousafzai et al. [53] as the “customer’s perception regarding their ability to monitor and control information about themselves”.

Trust stemming from perceived privacy can most likely be reached by letting the balance of power shift towards greater collaborative interaction between online businesses and their customers [54], [55]. The balancing of power to obtain trust involves, among other things, the recognition of a consumer’s right to data ownership during online transactions. Hoffman, Novak and Peralta [55] found that trust issues derive from the perceived lack of control over a consumer’s personal information and the access others have to the information during the online navigation process. There is thus an implication that confidentiality, an important aspect of building trust, can possibly be lost in such online processes [56]. Also, a greater level of privacy provided by an e-commerce website can lead to trusting intentions which influences trust behavior.

The perceived privacy is defined as consumer perception of ability to control the presence of other people in the environment [52]. Privacy provided by an e-commerce website can lead to satisfying intentions which influences satisfaction behavior. So, privacy can also be a critical factor in customer satisfaction of e-commerce services.

Flavián and Guinalýu [57] demonstrated that trust in the Internet is particularly influenced by the privacy perceived by consumers regarding the handling of their private data. Privacy is a critical factor in acquiring potential online customers and retaining existing customers [58]. So, privacy can also be a critical factor in e-loyalty of e-commerce services. Thus, it can be hypothesized that:

**H1a:** Privacy has a positive direct effect on e-loyalty.

**H1b:** Satisfaction is a mediator between Privacy and e-loyalty.

**H1c:** Trust is a mediator between Privacy and e-loyalty

## 2.7 Ease of Use

Ease of use refers to the extent the online store is easy to use, understand content, navigate and search for products and information during an online purchasing process. Purchasing goods online, the customer is left to handle the transaction by themselves. It suddenly requires the customer to possess a knowledge of internet technology. To cope with this “self-service” aspect, the retailers are responsible to create a user-friendly online retail environment. DeLone & McLean [59], divided the information system quality into system- and information quality. System quality takes into account the software aspects; however, the information quality refers to the precision

and reliability of the displayed information. Creating distinctive digital platforms, it is crucial for the producer to consider and target the end-user, which are the customers, that are going to perform in this comprehensive platform throughout a transaction [60].

Supporting the importance of ease of use for the retailers, research suggests that ease of use is one of the factors that initiate customers to act with repeat purchases [61]. A good website for a retailer should support easy navigation and customer intuition [50], [51]. Hence, the information and content should be concise and easy to understand. The information and content provided on the website should encourage customers to be self-reliant throughout the whole transaction. Any difficulties or incomprehensible situations the customer encounters will create frustration and incompetence for the customer, making them less satisfied [50], [51]. The interacting design is crucial for the prerequisite of the customer being independent throughout the transaction, and it requires comprehensive design and production.

According to Rose et al. [14], the ease of use is an important factor in the online environment. The research addresses that ease of use affects the likelihood of repeated purchases, making it an important experiential factor for e-loyalty. Additionally, Chiu, Lin, Sun, & Hsu [62] found a significant relationship between perceived ease of use and loyalty, in their research of assessing the customers' loyalty intentions in an online environment. As it can seem like both satisfaction and loyalty are related to the construct, ease of use, we propose the following hypotheses:

**H2a:** Ease of use has a positive direct effect on e-loyalty.

**H2b:** Satisfaction is a mediator between ease of use and e-loyalty.

## 2.8 Perceived Security

According to Eid [63], perceived security risk is defined as a consumer's perception that the e-shop will fulfill security requirements, such as authentication, integrity, encryption, and non-repudiation when making an online purchase. Considering online security, one can say that it is both safe and unsafe, however, it really depends on how you define the security purpose of the information. One might say that online information is more safe, due to physical paper might be ruined or disappear, hence online information will limit these problems. However, one also might say that online information is less safe, due to the risk of scam or hacking, making online information more vulnerable to being easily distributed through online channels.

How a consumer perceives security protection when making online transactions depends on how clearly, he or she understands the level of security measures implemented by the seller



[46]. When an ordinary consumer finds security features (e.g. a security policy, a security disclaims, encryption, a safe shopping guarantee, SSL technology, etc.) on the seller's Website, he or she can recognize the seller's intention to fulfill the security requirements during the online transactions. This positively affects the trustworthiness of the seller as far as security is concerned, and thus the consumer feels comfortable completing the transaction.

The Internet is a relatively new technology, which creates uncertainty with the customers that yet has to familiarize with the platform. The concern about specifying personal information on the internet is represented in a significant part of the customers [50], [50]. One can easily see a relationship between the security aspect and the companies' trustfulness, leading the customers to associate a company they can trust, with a company they can share their personal information with. Thus, customers are concerned about online retailers who do not provide any clear statements or documentation about their privacy policy [50], [51].

Yang et al. [50], [51], reported that security had an insignificant effect determining the overall perceived service quality. Additional, customers have stated that they currently were less worried about the security of shopping online, as they gotten to learn more about the internet every day. However, Dhiranty et al. [64] found that perceived security risk has a significant effect on satisfaction and trust.

Moreover, prior research suggests a significant relationship between assurance and e-loyalty [65]. Assurance is defined as how the online store is managing personal data, the security of specifying personal information, and the level of trust in the privacy/security aspect. Assurance is closely identified with our variable, security.

Dhiranty, Suharjo, & Suprayitno [64] conducted a case study for Tokopedia.com, where they did research on customer trust, satisfaction, and loyalty towards an online retailer. They included several variables for the research, including perceived security risk. The results revealed a significant relationship between perceived risk for trust and satisfaction. They found that the less perceived risk with the transaction, the more satisfied or increased level of trust the customer had towards Tokopedia.com. However, their result includes a foreign market, which motivates us to explore if security has any significant relations towards trust and/or satisfaction in the Sri Lankan market. We thus hypothesizes:

**H3a:** Security has a positive direct effect on e-loyalty.

**H3b:** Satisfaction is a mediator between security and e-loyalty.

**H3c:** Trust is a mediator between security and e-loyalty

## 2.9 User interface design dimensions on initial trust and satisfaction

Website design is obviously a multidimensional construct [66]. Many scholars have already grouped website design characteristics into different categories [67]-[69] but there is no standardized way of evaluating website design dimensions. In table 2.2 we therefore present a conceptual framework that classifies Web design features into three broad categories, namely (1) visual design, (2) social cue design, and (3) content design. ‘Visual design’ is defined as graphical and structural factors that give consumers a first impression. ‘Social cue design’ comprises social cues such as face-to-face interaction and social presence, embedded into the Web interface via different communication media. Finally, ‘content design’ consists of informational components of the website, either textual or graphical [70], [71].

We now use table 2.2 to explain how different affective, cognitive, and institutional signals influence consumers’ initial online trust.

| Dimension         | Sub-dimension       | Examples                                                                                                                                                                                                                                                  |
|-------------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Visual Design     | Graphics            | Product image, size, zooming and 3D clipart.<br>Background colour, contrast and font.                                                                                                                                                                     |
|                   | Structure           | Navigation design: simple and consistent navigation.<br>Navigation reinforcements: guides, tutorials and instructions.<br>Accessibility of information: no broken links or missing pictures.<br>Page design techniques: space and margin, visual density. |
| Social cue Design | Human-like Features | Facial photo: embedded photographs that give a feeling of human contact.<br>Video stream: a rich media cue that transmits visual and audio cues.                                                                                                          |
|                   | Assistive Interface | Avatar: interactive on-screen characters that are able to use verbal cues.<br>Recommendation agent: software-based advice-giving system.<br>Synchronous communication media: instant messaging, chat/audio lines.                                         |
|                   | Social media        | Mass media: information that comes from other websites or the press.<br>Customer reviews: a venue where individuals share their experiences.                                                                                                              |

|                                                                                                             |                 |                                                                                                                                                                                                                                                                              |
|-------------------------------------------------------------------------------------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                             |                 | Online social networks: sites where people share ideas, pictures or videos.<br>Blogging: Web community blogs, support forums, or discussion boards.                                                                                                                          |
| Content Design                                                                                              | Informativeness | Company information: brand-promoting information, company logo.<br>Product information: comprehensive and correct product information.<br>Service information: overall support delivered by the web site.<br>Background signals: congruence signals and promotional signals. |
|                                                                                                             | Brand Alliances | Brand equity: brands with positive image.<br>Hypertext links: links that create a perception of a relationship.                                                                                                                                                              |
|                                                                                                             | e-Assurances    | Internally provided assurance structures: company policies.<br>Externally provided assurance structures: third-party seals.                                                                                                                                                  |
| Source: Authors' own compilation based on prior literature ([e.g., Tan et al. [67], Wang and Emurian [70]). |                 |                                                                                                                                                                                                                                                                              |

Table 2.2 Classification of Trust-Inducing Website Design Dimensions

### 2.9.1. Visual design

Elements of visual design deal with balance, emotional appeal, aesthetics, and uniformity of the Web site overall graphical look. This includes colors, photographs, shapes, or font [72]. In some research, a relationship between the “aesthetic beauty” of a Web site and trust was established [73]. Web site aesthetics was considered related to the “overall enjoyable user experience” [74]. Visual design will result in both trust and satisfaction for the user:

Visual design is defined as “the attention-grabbing, aesthetic, visual quality of individual Web pages” [75]. Elements of visual design deal with balance, emotional appeal, aesthetics, and uniformity of the overall graphical look [76]. Visual atmospheric cues can provide information about the retailer as well as influence shoppers’ emotional responses [77]. Tan et al. [67] find that web designers perceive elements belonging to visual design such as “Colour usage”, “Layout/Space usage”, “Graphics usage” and “Presentation of information” as the most “effective” attributes of B2C websites. Montoya-Weiss et al. [77], for their part, find that visual attractiveness of a website is positively associated with quality perceptions.

This suggests that Internet users might associate the visual appeal of a website with the trustworthiness of the e-retailer. According to Wang and Emurian [70], there are two sub-dimensions of visual design: (a) ‘graphic design’ and (b) ‘structure design’:

#### *2.9.1.1. Graphic design*

‘Graphic design’ refers to the “look and feel” of a website; that is, the features that normally determine consumers’ first impression [78]. Graphic design elements include the use and size of images, the use of animation, the number of words per line and size of characters, symbols, and the display of colour [79], [80]. Prior research demonstrates that well-designed graphics such as the size of the text, the display of the text, and how appealing users find the interface in general will improve consumers’ online shopping experience, and will have a positive effect on their shopping behavior [80]. In contrast, poor graphic design may create confusion and lead to negative emotional reactions that interfere with consumers’ willingness to continue browsing or purchase from the website [78].

#### *2.9.1.2. Structure design*

‘Structure design’ is another dimension of visual design and refers to the overall organization and accessibility of displayed information on a website [70]. ‘Structure design’ (also called site architecture) is defined as “the organization of the different pages as an understandable whole” [75]. It concerns technical aspects such as navigation aids, layout of information, speed of page loading, validity of links, search facilities, site-maps, site availability, and ease of accessing the site [81].

It is crucial to have a strong sense of structure and navigation support in a website so that users know where they are, where they have been, and where they can go [82]. If a website is difficult to use, potential customers may switch to another e-retailer [83]. In contrast, when a website is easier to navigate, customers are less price sensitive and may purchase more expensive products [84]. Whereas the initial experience with an inaccurate website would cause a consumer to infer negative beliefs about the attributes of an e-retailer, the initial impression of a professional, timely, and high-quality website causes a consumer to infer positive beliefs, which in turn will induce initial trust [85]. In her cross-cultural study, Cyr [76] effectively finds that a good navigation structure contributes to the level of trust users have in the website.

### **2.9.2. Social cue design**

Adopting social media applications to increase the degree of consumer engagement in online shopping is becoming common practice. Social media features relate to embedded social

cues that give the impression of social presence and face-to-face interaction in the Web interface via different communication media such as facial photos, video streams, or social blogs [86]. We classify social cue design applications into human-like features, assistive interfaces, and social media networks as shown in table 2.2.

#### *2.9.2.1. Human-like cues*

The absence of a human aspect in the online environment limits the potential of purely virtual businesses [87]. This does not mean, however, that social presence cannot be incorporated into the Web interface. Higher levels of social presence can be achieved by embedding human-like cues such as facial photographs or video streams in the Web interface [86]. Transmitting a sense of personal, sociable, and responsive human contact via the Web interface may result in higher levels of perceived social presence, which in turn stimulates consumers' trust beliefs as well as positively influences their purchase intentions [88], [89]. Prior empirical research confirms that the use of facial photos or video clips may engender initial trust toward an unfamiliar e-retailer [91]. Numerous scholars also find that the availability of more social media applications in an e-commerce site enhances consumers' trust, loyalty, perceived usefulness, and purchase intentions [88-90].

#### *2.9.2.2. Assistive interface cues*

Assistive interface cues refer to innovative features (e.g., recommendation agents, avatars, live-help functions) that assist online shoppers in finding specific merchandise through a real-time communication [92]. The visual characteristics of an avatar have been found to impact initial impression: avatars with large pupils and slow eye blink frequency are perceived as more sociable and more attractive, which can lead to affective trust [94]. Artificial intelligence techniques such as intelligent software agents and recommender systems have proved to be useful in helping Internet users handle the vast quantity of information by assistance in searching, sorting, classifying, and filtering [95]. Prior research demonstrates that the effective use of assistive interface mechanisms may generate higher levels of social presence, which in turn enhances consumers' initial online trust [93], [96].

#### *2.9.2.3. Social media cues*

Social media cues include objective reviews by other websites or the press, customer reviews, and Web communities (i.e., Facebook, YouTube, Twitter, blogs). For example, reviews from customers, who have experienced the product, help increase social presence in a website and may increase prospective customers' trust in the e-retailer [97].

### **2.9.3. Content design**

Content design refers to the information components of a website, either textual or graphical [70]. These components can be quite diverse: company information (i.e., contacts, company background, FAQ), comprehensive product information (i.e., descriptions, price information), service information (i.e., delivery and return policies), and privacy policies [98]. Such information components may provide consumers with clues regarding the trustworthiness of an e-retailer [99].

#### *2.9.3.1. Informativeness*

Demangeot and Broderick [75] define informativeness as “the extensiveness of marketer information available on the site”. It refers to website elements that convey (accurate or inaccurate) information about products or services [76]. Information quality is found to be a significant antecedent of online trust, customer satisfaction, and loyalty [76], [99]. In an online shopping context, shoppers will, due to the absence of the actual physical products, seek more information about the products. Therefore, as suggested by many studies, consumers likely prefer online shopping environments that contain comprehensive information over those that do not [75].

Information design refers to Web site elements that convey accurate or inaccurate information about products or services to a user. The location of an icon on the screen would be the domain of information architecture, while whether or not that icon or text conveys the right information to a user is ID [72]. Information is considered an important prerequisite to trust [71], [100] and satisfaction [100], [101], [103]. In some of these studies [100], ID is one component of a larger construct termed usability that includes other aspects of design such as navigation or Web site structure. In the current study a new construct is created for validation that refers to information only. As McKinney et al. describe, “customers dissatisfied with web site information contents will leave the site without making a purchase” [102]. Tested here with a multiple country sample, it is expected ID will result in both Web site trust and Web site satisfaction.

#### *2.9.3.2. Brand alliances*

A brand alliance is the “short- or long-term association of two or more individual brands, products, and/or other distinctive proprietary assets” [104]. The impact of brand related factors on consumer trust and judgment is well known in the marketing literature. Consumers’ perceptions of reliability, benevolence, and intentions to purchase are higher for familiar well-established brands than for unfamiliar brands [105]. In the absence of other relevant information, the brand image can be a symbol of quality, and can evoke more trust in the online environment [105].

In an e-commerce context, alliances with reputable stores or well-established brands may allow unfamiliar e-retailers to share their image [85], and - since famous brands trigger many positive associations - engender consumer trust [106].

#### 2.9.3.3. *e-Assurances*

Structural assurances on the Web refer to protections (either legal protections or technological safeguards such as encryption) that assure safe transactions and prevent consumers from losing their personal identity [107]. They are particularly relevant for online markets where consumers mainly transact with unfamiliar e-retailers [108]. Institutional cues can be provided as part of the Web content, and can refer to either internally or externally provided e-assurance structures, such as money-back guarantees, privacy policies, or delivery terms. Perceptions of reduced risk have been linked with increased trust [109].

## 2.10 User Interface Quality

Gummerus, Liljander, Pura and Van Riel [110] define the user interface as the channel through which consumers are in contact with the e-commerce platforms. Park and Kim [58] found that the quality of the user interface affected the customer satisfaction directly, since it provides physical evidence of the competence of e-commerce platforms as well as facilitating effortless use of the platform. Also, Gummerus, Liljander, Pura and Van Riel [110] suggested that the quality of user interface is expected to affect trust directly. Similarly, Roy, Dewit, and Aubert [111] discovered that the ease of navigation, interface design, and user guidance affect consumer establishment of trust. Srinivasan, Anderson, and Pannavolu [17] found that interactivity aspect of e-commerce applications to be strongly related to e-loyalty. This is sensible since that e-loyalty will increase as a result of customer satisfaction which can be improved as a result of better user interface of the e-commerce application. Thus, we hypothesize:

**H4a:** User interface quality has a positive direct effect on e-loyalty.

**H4b:** Satisfaction is a mediator between User interface quality and e-loyalty.

## 2.11 Summary of hypotheses

| Hypotheses                                                                           | References                                                                                                                                    |
|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Privacy</b>                                                                       |                                                                                                                                               |
| <b>H1a:</b> Privacy has a positive direct effect on e-loyalty.                       | Park and Kim, 2003                                                                                                                            |
| <b>H1b:</b> Satisfaction is a mediator between Privacy and e-loyalty.                | Goodwin, 1991                                                                                                                                 |
| <b>H1c:</b> Trust is a mediator between Privacy and e-loyalty                        | Light, 2001; Hoffman and Novak, 1997-as cited in Hoffman, Novak and Peralta, 1999; Hoffman, Novak and Peralta, 1999; Culnan & Armstrong, 1999 |
| <b>Ease of Use</b>                                                                   |                                                                                                                                               |
| <b>H2a:</b> Ease of use has a positive direct effect on e-loyalty.                   | Chiu, Lin, Sun, & Hsu, 2009; Gefen, Karahanna, & Straub, 2003                                                                                 |
| <b>H2b:</b> Satisfaction is a mediator between ease of use and e-loyalty.            | Rose, Clark, Samouel, & Hair, 2012; Yang, Jun, & Peterson, 2004                                                                               |
| <b>Security</b>                                                                      |                                                                                                                                               |
| <b>H3a:</b> Security has a positive direct effect on e-loyalty.                      | Dhiranty, Suharjo, & Suprayitno, 2017; Semeijn, van Riel, van Birgelen, & Streukens, 2005                                                     |
| <b>H3b:</b> Satisfaction is a mediator between security and e-loyalty.               | Dhiranty et al., 2017                                                                                                                         |
| <b>H3c:</b> Trust is a mediator between security and e-loyalty                       | Dhiranty et al., 2017; Yang et al., 2004                                                                                                      |
| <b>User Interface Quality</b>                                                        |                                                                                                                                               |
| <b>H4a:</b> User interface quality has a positive direct effect on e-loyalty.        | Park and Kim, 2003                                                                                                                            |
| <b>H4b:</b> Satisfaction is a mediator between User interface quality and e-loyalty. | Gummerus, Liljander, Pura and Van Riel, 2004; Roy, Dewit, and Aubert, 2001                                                                    |

Table 2.3 Hypothesis Summary



## 2.12 Customer Experience Model

In this section, the conceptualization of the hypotheses is presented. Examining existing models regarding customer experience and loyalty have enabled us to develop a new framework covering important aspects of online customer experience leading towards e-loyalty. This model will hopefully contribute to a better understanding of e-loyalty within the Sri Lankan online retail market.

The model is based on literature review, investigating how various aspect can affect loyalty in an online environment. As the model present, we propose that the following online customer experiences; privacy, ease of use, security and user interface quality have an indirect effect on e-loyalty through satisfaction and/or trust. Furthermore, the model suggests that all of the customer experiences mentioned can have a direct effect on e-loyalty.

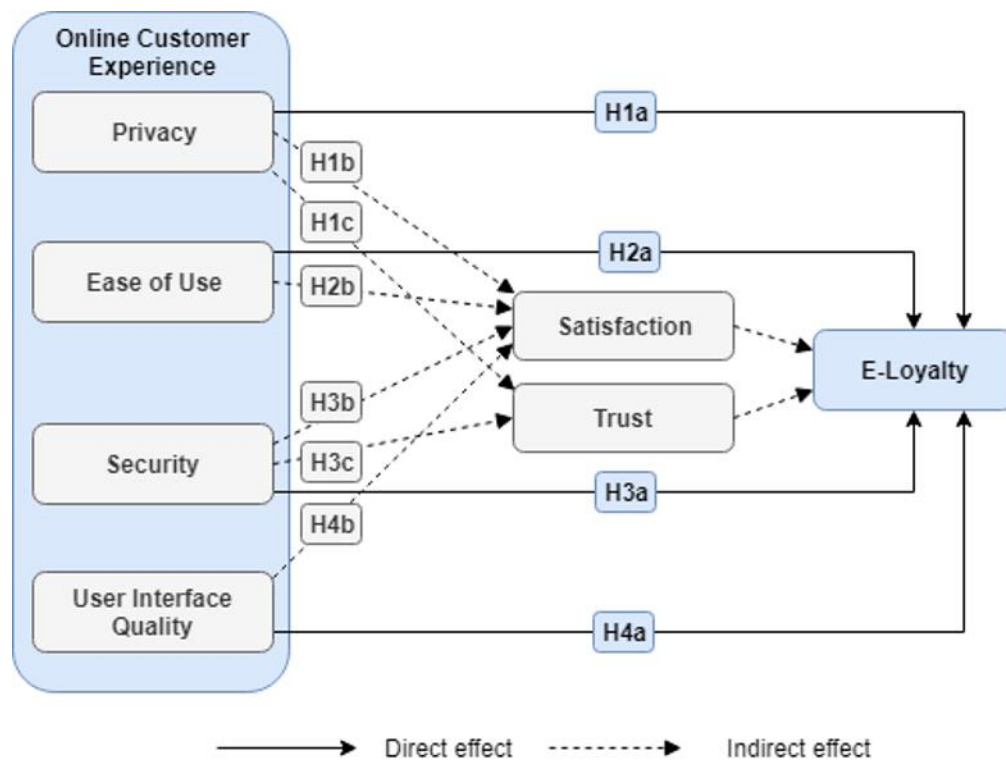


Fig 2.2 Proposed Conceptual Framework/model with Hypotheses



# Chapter 3

## Methodology and Design

The following section illustrates the methodological procedures used to answer our research question(s) and hypothesizes.

### 3.1. Type of Study

To be able to provide a deeper understanding, as well as ensuring the findings to be adequate and generalizable, this research used quantitative research approach. In this quantitative research, the researcher formulated new problems through the hypothesis that is a temporary answer to the formulation of research problems. According to Given [112], research with quantitative method is an approach to empirical studies to collect, analyze, and display data in numerical form rather than narrative.

### 3.2 Research Design

This research aims to investigate the customer experience online, and what it takes for them to become loyal towards an online store. Because this research seeks to obtain evidence regarding the cause and effect relationship between different customer experiences online and their e-loyalty, it is applicable to choose a causal research design (Explanatory research) [113]. Explanatory research, is the investigation of (research into) cause-and-effect relationships. This design is structured and planned to answer our hypotheses, understanding which variables that causes (IV's) customers to become loyal (DV) towards an online store.

### **3.3 Qualitative design**

The in-depth interviews are conducted with the purpose of collecting information and data from relevant participants, hence, obtaining an understanding and a conclusion about customer loyalty in the Sri Lankan e-commerce market. Instead of collecting the information randomly, the in-depth interviews are strategically organized with a determined agenda to explore and access information from reliable sources [114].

#### **3.3.1 Qualitative In-depth Interview Development**

Creating the questions for the in-depth interviews, we needed to arrange a meeting with an expert in the field. We had discussions with the directors for e-commerce stores, where we asked him which factors, he thought were important, for an online store to be able to obtain loyal customers. From this meeting, we learned that cognitive factors, affective factors, extrinsic attributes, trust, social interaction, and customer experience in general, were all crucial for customer loyalty online. Cognitive factors are the customers' knowledge, beliefs, product experience, etc. Affective includes factors such as; feelings, emotion and risk perception. While extrinsic attributes regard the construct of the website. Social interactions consider any communication with the customer service, complaint management, and other customer interactions. Based on this meeting with the expert, we had the foundation to create questions within each category mentioned above (see appendix 1). This allowed us to conduct the interviews with relevant questions for the research area, providing us a valid support for the further research in this thesis.

#### **3.3.2 Sample**

We conducted six in-depth interviews, that served as a foundation of the consumers understanding of customer experience, as well as being a basis when creating the survey. The interviews located the participants' perceptions, thoughts, and impression of customer experience online, and how this experience can relate to and or result in loyalty, satisfaction and trust with an online retail. The sample consists of consumers who frequently purchase goods online; men and women in the age range of 18-54 [7].

| Participant | Gender | Occupation                      | Age | Residence  |
|-------------|--------|---------------------------------|-----|------------|
| 1           | Female | Real estate agent/ Entrepreneur | 50  | Colombo    |
| 2           | Female | Student                         | 22  | Kandy      |
| 3           | Male   | Student                         | 22  | Kurunegala |
| 4           | Female | Student                         | 27  | Jaffna     |
| 5           | Male   | Director/ Entrepreneur          | 49  | Galle      |
| 6           | Male   | Student                         | 28  | Ampara     |

Table 3.1 Sample Characteristics

The sample design is explained by non-probability sampling, which means that none of the participants is chosen randomly [115]. Hence, the responses were not complimented the highest level of assurance. Nevertheless, this is not something that is recognized as a sever error, when the participants were chosen strategically to ensure that the sample represented the Sri Lankan target market as shown in the table 3.1, t. Additionally, the interview had no purpose of being an inspection or test, however, the interview contributed to the initial and fundamental mapping of the market.

Throughout the recruiting process of the sample group, several criteria were assessed before participants were selected (purposive sampling). More specific, judgment sampling describes the recruiting process, when the participants were chosen by representing the candidates that could provide valid insight [116]. Relevant participants that were chosen had purchased online within the past 6 months (level of activity needed) and had the age of 18 or older.

According to law, one needs to be 18 years old to legally incur debt in Sri Lanka without any agreement from the legal guardian, hence, a sufficient part of the online stores prohibits anyone under 18 years old to purchase. Thus, we limit our research to participants at the age of 18 or higher. This supports and justifies performing a non-probability sampling.

### 3.3.3 Validity and Reliability

Conducting the in-depth interviews, required that we as the interviewers represented a consistent role, performing the same act in each interview. Additionally, we had a responsibility to write down the responds accurately, without personal comments avoiding any personal point of view [114].

Assessing our in-depth interviews there are no identified issues or errors regarding the structure. The participants were introduced to the same topic and the same challenges, when we as the interviewers performed consistently, additional to typing the responses accurate [114]. As well

as, we had the role of performing with professionalism and respect, to justify our role and identity as the interviewers, hence, not biasing the answers. Managing the interviews in a semi-structured form, enabled us to proceed with a determined agenda, however, at the same time assessing the possible benefits from asking additional questions or consider reasonable input from the participant. Thus, this also encouraged the participants to be more specific in their answers, giving us a deeper and more insightful result.

In advance of the interviews, we collected background information about the participants. In the act of making the assumption we could utilize this in the interviews, obtaining a stronger credibility, and feature issues that seemed important for the participants.

The advantages with the in-depth interviews we conducted are the excessive answers that contribute with depth, the interviews require little equipment, and one has a strict control in form of receiving information from relevant sources [114]. However, there are some disadvantages. Conducting the in-depth interviews, the participants might have responded in the way they think we as the interviewers wanted them to respond, instead of being totally honest in their opinion. As well as the interview being artificial, considering the staging and preparation processes. Facilitating these disadvantages, we strategically recruited participants who we knew was going to answer honestly, and not going to be affected by the artificial settings.

### **3.3.3.1 Ethical Issues**

Conducting the interviews, we needed to consider and facilitate possible aspects that may have had an impact on the person that was being interviewed. Having this in mind, ethical issues represented an aspect that had to be facilitated, thus protecting the person being interviewed emotionally and avoid biased answers.

DiCicco-Bloom & Crabtree [117] identified four distinct ethical issues one should consider in advance of the interview. We needed to locate and assess the questions that might provoke or require cognitive reflection that could initiate an emotional reaction and statement. Further, we stated that the answers from the interviews were to be managed and presented anonymously. Hence, protecting the participants from public exposure gained trust with the participants, and provided more unbiased data. As an introduction to the interview, we presented the subject and explained for the participants the purpose of the research. During the interview process, the subject and purpose of the research were relatively determined. Throughout the interviews we performed as an independent entity, conducting this interview as a contribution to the research. The participants were greatly acknowledged for their contribution, having an anonymous

announcement at the end of the research recognizing the participants for volunteering in the in-depth interviews.

### 3.4 Quantitative design

Building on existing literature and previous theories we have developed an online survey regarding online customer experiences, customer satisfaction, customer trust and e-loyalty. This survey will assist us in answering our hypotheses, and thus propose a new framework regarding online loyalty within the Sri Lankan market.

#### 3.4.1 Population

Population is the whole subject of research [118]. In this research, the population were all Sri Lanka e-commerce customers who make engagement with e-commerce platforms.

#### 3.4.2 Sample and Sampling Techniques

Sample is a partial or representative of the population under the study [118]. By considering the large population, limited time and cost of research, the researcher needed to limit the samples in sampling process. The sampling technique was random sampling, which took a random sample of a population that had been determined.

The initial stage for this sample for this research is similarly with the in-depth interviews based upon Sri Lankan consumers who had bought goods online during the past six months. Recent reports on Asia e-commerce industry suggests that 45% to 52% of the population in the age range of 18 to 79 purchases goods online at a regular basis [7].

With a causal research design, it is essential to have an adequately large and representative sample size, as well as dealing with nonresponse biases [119], [113]. Since we are only statistically interested in the population proportion purchasing goods online (45%), it is appropriate to determine a representative sample size based on the population proportion rather than the means [119], [120]. By using population proportion of 45% ( $\pi = 0.45$ ), in addition to a confidence level of 95% ( $\alpha = 0.05$  and  $z = 1.96$ ), and error margin of 8% ( $D = 0.08$ ), we estimated that a sufficient sample size would be 148 respondents (see calculation below). However, we managed to obtain a total sample of 153 representative respondents, lowering the error margin to 7.9%.

$$n = \frac{\pi(1 - \pi)z^2}{D^2}$$

$$n = \frac{0.45(1 - 0.45)1.96^2}{0.08^2}$$

$$n = 149$$

We have equally coded the sample to put into six baskets with the respective Sri Lankan store which the respondent has given in the questionnaire. These six stores are listed in table 3.2.

| Store Name     | Number of Participants |
|----------------|------------------------|
| Daraz.lk       | 26                     |
| Takas.lk       | 26                     |
| Urban.lk       | 25                     |
| Mysoftlogic.lk | 25                     |
| Mydeal.lk      | 26                     |
| Buyabans.lk    | 25                     |

Table 3.2 Coded Sample Characteristics

The sample of this research is therefore based on consumers in this age range, who has made at least one online purchase with respect to an online store during the past six months.

The sample consisted of respondents who had purchased something online, at least once during the past six months. Most of the respondents were within the age range of 18 to 54 (92.2%), whereas 7.7 % were in the age range of 55 to 64 years. No respondents fell within the category “65 years or older”. This is not surprising, given that Asian consumers between 25 and 44 years tend to purchase goods online more often than older consumer [7].

The distribution of gender was slightly uneven, with the more females than male participant. The sample consisted of 64.1% females, while 35.9% was male (see appendix 5.1, table 3). This skewness is reflected by the mean (1.64), as “men” was coded to be 1 and “females” to be 2 in the dataset (see appendix 5.1, table 1). Moreover, 63 (41.4%) respondents live in a large city, while the remaining had residence in a smaller city (22.9%) or in a village/town (35.9%). The level of their household income was relatively normal distributed. The sample consisted of people with both a higher and lower level of education. The distribution among the years of education completed was relatively even, with a slight skewness towards the higher end. This is reflected in the median of 3, which indicates an educational level of 3-4 years (see appendix 5.1, table 1).

Furthermore, the sample tends to purchase goods online, and the amount of online shopping has increased over the past few years. In fact, 75.2% reported that they purchase more often online now than they did just a few years ago. Despite this, the participants do not tend to purchase something online every week. The majority of the respondents purchase goods online once or twice a month (52.9%), while 34.6% purchases more rarely than once a month.

To check for normal distribution of the sample, we assessed the skewness, kurtosis, and histograms of the demographics. All demographic variables met the criteria for skewness ( $-3.29 <$



$Z < 3.29$ ), which suggest a normal symmetric distribution (see appendix 5.1) (West, Finch, & Curran, 1995). The kurtosis indicated the distribution of the items to be flatter than normal, however, examining the histograms, one can see a clear bell-shaped form. Assessing these indicators, one can determine the sample to be relatively normal distributed.

### **3.4.3 Research Context**

For this research, we have chosen the Sri Lankan e-commerce business as a context. The participants are asked to answer an online survey, regarding their experiences with online shopping. They can complete the online questionnaire whenever they want, and wherever they are. This is an adequate context for the research, as the context corresponds with the online shopping context, being able to purchase goods at any time from everywhere. Choosing an appropriate context eliminates the possibility of a lower willingness to respond.

### **3.4.4 Type of research data**

Primary data was collected to conduct this research. The data were obtained directly from the respondents by doing the field research. The data was gathered by distributing questionnaires. In order to collect the data needed to meet the research needs, the data obtained from the questionnaire to the respondent where the questions provided by the researcher to support the data information. Questionnaire that was used and presented to the respondent consisted of two parts, namely:

- a. Part that revealed the characteristic of the respondents. Contains data of the characteristic of respondents including sex, age, length of work and education.
- b. Part that contained questions about research variables such as privacy, ease of use, security, user interface quality, customer satisfaction, trust and customer loyalty.

### **3.4.5 Survey Development and Data Collection**

Most of the constructs in the questionnaire were based upon established scales, that have been proven to measure the desired constructs. These constructs include loyalty, satisfaction, trust, privacy, ease of use, security, and user interface quality. In addition, demographics and general questions regarding online consumption were included. To be able to collect data from participants eligible for our chosen sample, two screening questions were added. Since this research concerns online customer experience and loyalty online, it was important to make sure that the participants frequently purchase goods online. The first criteria that needed to be met were therefore that they must have made at least one online purchase during the past six months. Adding this criterion, we

made sure that the participants were within our chosen sample, hence, possesses the right competence to be able to provide reliable data.

The questionnaire consists of different constructs, measured by using Likert's scale. Examining prior research, we found that a 5-point scale was commonly used among the constructs ease of use, security, privacy, user interface quality, satisfaction, and loyalty [50], [51], [121], [122]. Whereas the construct trust had been measured using a 7-point Likert scale [39].

In this questionnaire (see appendix 4), a 5-point Likert scale was adopted for most of the constructs, ensuring consistency and ease of comparison. The participants were asked to what extent the following statements were correct in regards to online shopping. They indicated their answer by selecting one of the 5 points, ranging from "to a very small extent" (1) to "to a very large extent" (5). We also added an option to pick "I do not have an opinion" (6), as the participants may not have a reference to some of the statements. For the constructs, loyalty and satisfaction, the participants were asked to indicate their answer by choosing among three points, "agree" (1), "disagree" (2), and "neither agree or disagree" (3). The scales were standardized before the analyses were conducted, making them consistent.

To ensure the validity of the results, a question to test whether the respondents were reading carefully and not answering at random were included [123]. The question stated, "I am reading carefully and will therefore answer to a small extent (2) on this statement".

Examining the results from this "catch" question, one can see that 70.6% of the respondents chose option number two, being observant and answering the statements carefully throughout the survey (see appendix 5.2, table 1 and 2). Furthermore, it can seem like some of the respondents misinterpreted the question, believing that we asked them to check the first box "to a very small extent" (1). 17 (11.1%) respondents chose this answer, whereas 9 chose "I do not have an opinion". Despite some confusion amongst the participants of what answer to give, the median of the control question was 2, indicating that the majority of the respondents were observant and read the questions carefully.

Developing the survey, it was important to ensure the security of the information that the respondents provided. This was done by highlighting the aim of the survey in the introduction. We also stated that the data collected would not be shared with any third parties and that it was voluntary to participate [113]. Moreover, we included an incentive in the introduction, giving the respondents a possibility to win a gift reload of 5000 LKR by completing the survey. This was done to encourage as many as possible to participate and complete the questionnaire [120].

The total number of items included in the survey was 68, and 184 responses were collected through an online survey using Google Forms. We removed responses that were not completed, in addition to those who did not fit with our screening criteria. After cleaning the data, we ended up with a total of 153 representative responses. Respondents were collected through our network of friends and family by using social media.

### **3.4.6 Research Variable and Measurement**

The research variable is the object of research or what is the point in a study [118]. There are three kinds of variables used in this research as follows:

1. Independent variable consisted of customer experience (Privacy, Ease of Use, Security, User Interface Quality)
2. Intervening variable consisted of customer satisfaction and trust
3. Dependent variable consisted of customer loyalty

Each variable will further be described as follows.

#### **3.4.6.1 Independent Variable**

##### ***Online Customer Experience***

Online Customer experience can be measured by four dimensions:

1. Privacy
2. Ease of Use
3. Security
4. User Interface Quality

#### **3.4.6.2 Intervening Variable**

##### ***Customer Satisfaction***

Customer satisfaction is an emotional response to an evaluation of experience in using a product or service [124].

##### ***Trust***

Trust is one of the important filters in many ecommerce transactional activities [125], [126]. Building long and trustable relationships with customers has often been identified as an important value for customer loyalty.

### 3.4.6.3 Dependent Variable

#### *Customer Loyalty or e-Loyalty*

Customer or e-loyalty is customer loyalty to a product or service held deeply to repeat the purchase of a product or service in the future [127]-[129].

### 3.4.7 Validity and Reliability Test

To ensure that the data gathered from the questionnaire are of value and thus without any major errors, we have examined the validity and reliability of the survey [120].

#### 3.4.7.1 Validity Test

Validity test is a measurement that shows the validity level of an instrument. An instrument is considered valid if it is able to measure what is desired. The method used for the validity test is the Pearson correlation test. The item can be said as valid if its  $r$  count (Pearson Correlation Value) is higher than  $r$  table [130].

The credibility and to what extent the measures accurately represents and measures what it intended to measure, can be assessed by examining the validity of this research [131]. First, examining the content validity, we evaluated how well the content of the scales represented the desired constructs [120]. For this research, we have used established scales that have been assessed by experts and other researchers to be representative of the chosen constructs. This indicates that the content validity of this research is adequate. However, assessing the content validity alone is not sufficient, as it is difficult to measure whether all the aspects of a construct are being measured by the scales. A more formal evaluation of the scales was done by examining construct validity.

Examining the construct validity of this research, we addressed the question of whether the scales measured what it was intended to measure [120]. By using scales that have been developed and tested to measure certain constructs, there should be a satisfactory level of construct validity. However, some alterations of the scales have been done, which might affect the construct validity.

#### 3.4.7.2 Reliability Test

The reliability of this survey has been assessed by finding to what extent the scales are consistent and thus able to produce the same level if repeated [120]. A common measure of internal consistency is to assess the Cronbach's alpha, determining how much the items of a scale measure the same underlying dimension [132]. This research examines eight different constructs, where seven of them are based on well-established scales, anchored in previous research. To be able to

determine the reliability of the different constructs, we have to performed multiple Cronbach's alpha tests.

For the constructs *ease of use*, *security*, *trust*, and *satisfaction*, we found a significant high internal consistency, determined by Cronbach's alpha's above 0.600 (see appendix 5.3 for the alpha values). Examining the "corrected item – total correlation", each construct revealed satisfactory Pearson correlations above 0.3 for all items (see appendix 5.3) [132]. The constructs consist of two to six items (see appendix 3), and a satisfactory correlation indicates that the coding of the questions is right.

The construct *privacy*, consists of 13 questions based on scales developed by Ding et al. [121] and Yang et al. [50]. Assessing the reliability of this construct, we found a satisfactory Cronbach's alpha of 0.905 (see table in appendix 5.3), indicating high internal consistency within this construct. Furthermore, the statistics from the corrected item's revealed that all items had a positive Pearson correlation above 0.3, except for two (see appendix 5.3). A lower value than 0.3 is a concern, thus we removed the items. The new alpha yielded a higher internal consistency, determined by an alpha of 0.913.

Examining the construct user interface quality, we found a non-satisfactory alpha of 0.522, for the ten items included in this construct (see table in appendix 5.3). This indicates a lower reliability and that the construct does not measure what it is intended to measure [120]. Assessing the results from the "total item statistics" one can see that the item "The Web site provides the relevant the products/services information." has a negative corrected item value of -0.103 (see appendix 5.3), thus we had to recode the item. A new Cronbach's alpha test was conducted; however, the test did not reveal a satisfactory alpha (0.577) (see appendix 5.3). Examining the new "item – total statistics", five of the ten items did not have satisfactory Pearson correlations values, thus we reduced the number of items. The new alpha yielded a satisfactory level of internal consistency, determined by an alpha of 0.724 (see appendix 5.3). The items excluded was "The Web site presents information that is easy to understand.", "The information on the Web site facilitates buying the products or services that it sells or markets.", "The Web site provides the up-to-date products and services information." and "The website presents information that is well organized" as well as the recoded question. Assessing the construct *loyalty*, consisting of nine items, we found a high internal consistency with a Cronbach's alpha of 0.719 (see appendix 5.3). Furthermore, the Pearson correlation had satisfactory correlations above 0.3 for all items except two (see appendix 5.3). Despite this, we decided to keep the items in the construct as they have been proven to measure the desired construct, loyalty [121], [133].

Assessing the reliability of all constructs we have found some random errors. While systematic errors do not affect the reliability, as the errors affect the measurements in a consistent way, random errors might affect the measures, leading to a lower reliability [113]. These errors have been corrected, ensuring a high reliability of the constructs.

### **3.4.8 Pre-Test or Pilot Study**

Before going through with the data collecting process, we pre-tested our survey on a small and representative sample. This was done to make sure that there were no errors in the survey, that the questions were clear and easy to understand, and that the question flow and scales were logical for the participants [134]. This is an important step, as a dry run of the questionnaire allows the participants to provide feedback on the survey and thus enable us to improve the questionnaire. The survey was tested on ten participants. As it is important to ensure that the sample pre-testing the survey is representative for the targeted sample, a combination of friends and family members were asked to conduct the pre-test.

When the dry run was finished, we looked for common problems and feedbacks given by the participants and improved the survey accordingly [134]. We rephrased some questions, and excluded some, as they were very similar to other questions. While most of the feedback was similar among the participants and thus improved, we also had some variation in the comments. These concerns were considered, and not altered, as only one participant was concerned with them.

### **3.4.9 Data Analysis Technique**

#### **3.4.9.1 Respondents Characteristics**

In this part, this research described the characteristic of the respondents. The characteristics were gender, range of age, range of monthly income, occupations, and education level of the respondents.

#### **3.4.9.2 Descriptive Analysis**

Descriptive statistical analysis techniques were used to analyze data by describing the data that has been collected by not intending to make general conclusions [135]. This analysis is a description explaining the identity of the respondents.

#### **3.4.9.3 Structural Equation Model (SEM)**

Research model was analyzed by using Structural Equation Model (SEM), by utilizing SPSS software and SPSS AMOS. SEM is an analytical technique that allows complicated and complex variable relationships simultaneously. In simple explanation, SEM provides an adequate

estimation technique and efficient estimation technique for multiple regression equations and it is estimated simultaneously [136].

Hair et al. [131] explained seven steps of data analyzing process with SEM as follows:

***Step 1: Model Development Based on Theory***

Models are simplifying complex problems for easy analysis. The model builds the literature and results of previous relevant studies.

***Step 2: Build a path diagram***

The model that has been built is then described in the form of a path diagram. At this stage the research defines and establish the exogeneous and endogenous constructs and then connects them in the form of the path diagram. With this path diagram will be clearly known which bag to do confirmatory test which mean to testing does the indicator can explain the latent variable and which part that should be tested hypothetically that is test the influence of all exogenous variables to endogen variables either directly or indirectly, and to test endogen effect to another endogenous variable.

***Step 3: Convert path diagrams in equation model***

At this stage the researcher describes the flowchart of research model in the form of structural equation and the equation of measurement model specification.

***Step 4: Choose Input Matrix and Estimation Model (Path Analysis)***

Since this research tests causality, the input used is covariance. Then the path analysis is conducted. At this stage, the influences of both direct and indirect variables were tested.

***Step 5: Predict identification model***

This stage was used to estimate whether the structural model created was capable of producing a good estimation. Signs of a problem in this stage were:

1. Standard deviation for one or more coefficients of models is very large.
2. The required information cannot be presented by the program.
3. The appearance of unnatural numbers, i.e. there is a negative variant.
4. There is a correlation coefficient rate among the coefficient estimations which was very high.

**Step 6:** *Evaluate the accuracy of model estimation*

Model estimation was tested if several assumptions on SEM usage can be met. Things that should be considered are: sample size of at least 100 units; normal and linear patterned distributed data; evaluation of outliers with univariate and multivariate methods. If SEM user assumptions were met, the next step is goodness of fit test.

**Step 7:** *Interpret and modify the model*

The final step of the series of steps above was to interpret and modify the model if it turns out that the resulting estimate did not have the expected level of prediction or had a high residual rate.

**3.4.9.4 Goodness of Fit Criteria**

In sum, the guidance of the *goodness of fit* index is as follows:

**a. Mean Squared Error (MSE)**

It is perhaps the most simple and common metric for regression evaluation, but also probably the least useful. It is defined by the equation below where  $y_i$  is the actual expected output and  $\hat{y}_i$  is the model's prediction.

$$MSE = \frac{1}{N} \sum_{i=1}^N (y_i - \hat{y}_i)^2$$

MSE basically measures average squared error of our predictions. For each point, it calculates square difference between the predictions and the target and then average those values. The higher this value, the worse the model is. It is never negative, since we're squaring the individual prediction-wise errors before summing them, but would be zero for a perfect model.

**Advantage:** It is useful if we have unexpected values that we should care about very high or low value that we should pay attention.

**Disadvantage:** If we make a single very bad prediction, the squaring will make the error even worse and it may skew the metric towards overestimating the model's badness. That is a particularly problematic behavior if we have noisy data (that is, data that for whatever reason is not entirely reliable) — even a “perfect” model may have a high MSE in that situation, so it becomes hard to judge how well the model is performing. On the other hand, if all the errors are small, or rather, smaller than 1, than the opposite effect is felt: we may underestimate the model's badness.



**Note that** if we want to have a constant prediction the best one will be the **mean value of the target values**. It can be found by setting the derivative of our total error with respect to that constant to zero, and find it from this equation.

### b. Root Mean Square Error of Approximation (RMSEA)

Root Mean Square Error of Approximation (RMSEA) is a measurement of approximate fit in the population and is therefore concerned with the discrepancy due to approximation. RSMEA is estimated by the square root of the estimate's discrepancy or MSE due to approximation per degree of freedom. RSMEA is regarded as relative independent of sample size, and additionally favors parsimonious models.

$$RMSE = \sqrt{\frac{1}{N} \sum_{i=1}^N (y_i - \hat{y}_i)^2} = \sqrt{MSE}$$

The RSMEA is bounded below zero. Although, there is a general agreement that the value of RMSEA for a good model should be less than 0.05, an RSMEA of less than 0.008 is a cutoff criterion.

### c. R Squared ( $R^2$ )

Now, what if I told you that MSE for my model prediction is 32? Should I improve my model or is it good enough? Or what if my MSE was 0.4? Actually, it's hard to realize if our model is good or not by looking at the absolute values of MSE or RMSE. We would probably want to measure how much our model is better than the constant baseline.

The coefficient of determination, or  $R^2$  (sometimes read as R-two), is another metric we may use to evaluate a model and it is closely related to MSE, but has the advantage of being **scale-free** — it doesn't matter if the output values are very large or very small, **the  $R^2$  is always going to be between  $-\infty$  and 1.**

When  $R^2$  is negative it means that the model is worse than predicting the mean.

$$R^2 = 1 - \frac{MSE(model)}{MSE(baseline)}$$

The MSE of the model is computed as above, while the MSE of the baseline is defined as:

$$MSE(baseline) = \frac{1}{N} \sum_{i=1}^N (y_i - \bar{y})^2$$

where the  $\bar{y}$  with a bar is the mean of the observed  $y_i$ .

To make it clearer, this baseline MSE can be thought of as the MSE that the **simplest possible** model would get. The simplest possible model would be to *always* predict the average of all samples. A value close to 1 indicates a model with close to zero error, and a value close to zero indicates a model very close to the baseline. In conclusion,  $R^2$  is the ratio between how good our model is vs how good is the naive mean model.

The range of  $R^2$  lies between minus infinity and 1. For example, consider a really crappy model predicting highly negative value for all the observations even though actual value is positive. In this case,  $R^2$  will be less than 0. This is a highly unlikely scenario but the possibility still exists.

#### 3.4.9.5 Hypothesis Testing

Hypothesis testing is used to determine the direct relationship if one variable affects other variables without any third variables that mediate (intervening) the relationship of these two variables. It also used to determine the indirect relationship if there is a third variable mediating the relationship between these two variables. Thus, on each dependent variable (endogen variable) These variables serve to explain the amount of unexplained variance by that variable.

# Chapter 4

## Analysis and Results

### 4.1 Qualitative Analysis

Conducting the in-depth interviews provide us extended answers and a large quantity of data. After constructing the data, we needed to perform a reduction of the data to enhance the relevance of the results [113]. We reduced data that had no logic or was taken out of context, in addition to data where only one respondent could justify the statement. Furthermore, when we analyzed the in-depth interviews, we managed to code the data into categories, where the questions who had a similar theme and aspects where congregated into one category (see appendix 1). The structuring of the answers from the in-depth interviews enabled us to compare and interpret the data, detecting paths and useful insights. The results of the analysis were displayed in an extended text, describing the connections between the respondents and the factors. Utilizing these results, we will further in the research use the main findings from the in-depth interviews as a confirmation of other findings, gaining depth and insightful information.

### Main Findings In-Depth Interviews

#### 4.1.1 Cognitive

Throughout the responses from the in-depth interviews, it is clear that convenience is suggested to be an important factor in why the respondents rather purchase online than in physical stores. However, there are some respondents that state that the convenience can in some encounters

be challenging. Three of the respondents answered that whenever they need to try a product (e.g. the fit of clothes), the online purchase becomes more challenging, diminishing the convenience.

#### **4.1.2 Affective**

Considering the safety aspect of making a purchase online, none of the respondents seemed to have substantial worries about purchasing online. Assessing the security of an online store, the respondents consider characteristics such as; if the online store is familiar, payment solutions that are common and acknowledged, the construct and quality of the website, and a “safe e-commerce trademark”. “Http(s)” was also included as one of the characteristics providing safety. Additionally, payment solutions, like FriMi/Mobile Wallet, that offer customers to pay after receiving the product, increases the perception of safety.

The research shows that all of the respondents tend to avoid online shops they feel are unsafe to make a purchase from. Hence, if the online shop does not provide adequate safety arguments, they are likely to lose customers based on this feature.

#### **4.1.3 Trust**

Based on the questions given about the importance for trustworthiness, the respondents answered that trust is a crucial factor. Trust in an online store affects their purchases indeed, and they state that it is a crucial factor for executing the purchases. One of the most important factors encouraging trust in an online store is customer reviews. Hence, displaying customer reviews on the online stores saliently will increase the customer trust in the online store, according to the respondents. Additionally, the respondents answered that they appreciate when the online store is providing sufficient information and photos of the product and an adequate operating quality of the website.

#### **4.1.4 Social**

One of the service-feature that the respondents have recognized with online stores, is that they tend to have a pop-up chat, where you can communicate with the customer service immediately. Even though this could be great if you have any questions, it can in some cases be a bit annoying when the pop-up chat covers a large part of the web page, and you do not have any questions. Further, some respondents answered that they appreciate when the online store remembers or saves their shopping chart whenever they exit the web page. Hence, if the exit was due to a distraction or a mistake, the customer does not have to start the purchasing process all over again, reducing the risk of forgetting some of the items.

Almost all of the respondents use mail and chat whenever they need to reach out for contact with the online store. Considering you get a notification when your inquiry is answered, it is easy to communicate, and you avoid long phone lines. Another element with the in-depth interviews, reveals that when the respondents tend to contact the online store, it is mostly regarding question about complaint and return.

When the respondents are asked to assess the complaint- and return management in general by online stores, they all agree on that a sufficient part of the enquiries are being managed adequately. They receive their money back if the product does not fit or is damaged. Additionally, the return-forms is easy to fill out and often included in the delivery. However, when the online stores tend to practice with a long response pace regarding a complaint or return, or the online store does not give the benefit of doubt to the customer, the respondents state that it might affect their satisfaction.

#### **4.1.5 Extrinsic Attribute**

Based on the answers from the participants, the user-/customer friendliness of the online stores' digital platforms affects them in the purchasing process. Furthermore, the respondents claim that it also might have an impact on considering a repurchase. The respondents answer that if the online store is easy to navigate, the process is seamless, and they have a sufficient return management, they would be enticed at returning to the online store at a later occasion.

#### **4.1.6 Customer Experience**

One thing we learned from the in-depth interviews, was that every participant had their own definition of what a good customer experience is. This is not a surprise when we all are individuals with different needs and opinions. However, despite their different expectations, they all answered that it is important that the purchasing process is seamless and effective, for the possibility of a good customer experience to be present.

The participants had some specific factors that they implied could encourage superior customer experience. Some of the factors mentioned where; giveaways and discounts, handwritten letters in the package, improved response time with the customer service, and a 100% satisfaction guarantee.

#### **4.1.7 Loyalty**

Daraz.com, MyDeal.lk, Takas.lk, Urban.lk, Mysoftlogi.lk and Buyabans.lk, are some of the online stores that the respondents tend to return to for more purchases. The online stores are

familiar, and the respondents know what to expect, and have a trust in the online store. The respondents answered that satisfaction is a crucial factor when they consider repurchasing with a specific online store. Additionally, including excellent customer service, other aspects might have an impact on repurchase, such as; the ease of the purchase process, the option to pay by FriMi and other mobile wallets, or if the online store is providing products one is unable to purchase anywhere else.

## **4.2 Quantitative Analysis**

After the data was collected using Google Forms, it was transferred into SPSS Statistics and SPSS AMOS for further examination. The data was recoded, and uncompleted questionnaires were excluded. As we had a “forced respond” on the majority of the items, we did not have major issues with low response rates on certain statements. The only items that the participants could choose not to answer were the items regarding demographics. Furthermore, we had to recode some of the constructs, as some of them had reversed-scored statements. The constructs recoded were satisfaction and loyalty. These were re-coded by transforming them into new variables, giving them new values. Initially, the constructs were coded “Agree” (1), “Disagree” (2), and “Neither agree or disagree” (3). As the other constructs were coded from a negative “To a small degree” to a positive “To a large degree”, the new values of satisfaction and loyalty was given values in accordance to the range of the other constructs. The new values, therefore, became “Disagree” (1), “Neither agree or disagree” (2), and “Agree” (3). The scales were also standardized, to make them consistent with the scales of the other constructs.

After all the above-mentioned adjustments and changes of the data was done, we computed a variable means of each construct. This was done to make the data more manageable, and thus easier to interpret. When the data was cleaned and ready to be analyzed we ran descriptive statistics for all constructs, assessing the frequencies of each statement. For this analysis, we assessed all items included in the variable means. Testing our hypothesis, we ran a multiple regression of our constructs. The dependent variable e-loyalty and the independent variables ease of use, security, user interface quality, privacy, trust, and satisfaction, were measured by using Likers scale, corresponding with a continuous scale in SPSS. Furthermore, we also assessed the hypotheses by running independent linear regressions for each construct, enabling us to determine the significance of both direct and indirect effects towards e-loyalty.

### **4.2.1 Descriptive Statistics**

Completing the questionnaire, the respondents were asked to base their answers, regarding the different constructs, on their experiences with a recent online purchase and state the store. This

was done as many of the established scales had targeted a certain retailer in their questions. Thus, we could change the store's name in the statements with "the online store", making the alteration of the scales minimal.

#### **4.2.1.1 E-Loyalty**

Examining the frequencies for the construct loyalty, one can find that the sample is satisfied with the product the online store offered, as 60.1% agreed on this statement (see appendix 6.1, table 1). They also tend to encourage friends to purchase from this store (73.9%), further stating that they "say positive things about this site to other people" (74.5%) (see appendix 6.1, table 2 and 3). However, the sample does not tend to prioritize offerings from the site or favor the online store. Half of the participants (49.7%) stated disagreed to be prioritizing the online stores' offerings, while 50 (32.7% were neutral (see appendix 6.1, table 4). Furthermore, only 33.3% of the respondents reported that they tend to favor the online store, while the majority (49.7%) did not agree on this statement (see appendix 6.1, table 5). This is interesting, given that they stated that they would recommend other people to purchase from the store. Despite diverging answers regarding their loyalty, 88 participants (57.5%) stated that the online store was better than its competitors (see appendix 6.1, table 6), and 88.9% said that they would keep purchasing goods from the online store in the future, implying future loyalty towards the retailer (see appendix 6.1, table 7).

#### **4.2.1.2 Satisfaction**

The results show that 97.4% of the respondents agree with the statement "Overall, I am satisfied with the online store" (see appendix 6.1, table 8). Two of the respondents (1.3%) were neutral and two (1.3%) respondents disagreed. The score of 97.4% indicates that a significant part of the respondents is satisfied with the online store they last had a purchase encounter with, leaving us the possibility to analyze more specifically the causalities. This indicates that almost all of the respondents were overall satisfied with their recent purchase, which enables us to further analyze what might have affected them becoming satisfied.

#### **4.2.1.3 Trust**

Assessing for the overall trustworthiness with the online store, 91.5% of the respondents answered that overall, they could trust the online store to a large extent or greater (see appendix 6.1, table 9). Having a look at the remaining respondents, 6.5% answered to a varying extent and to a small extent, leaving 2% of the respondents who answered that they did not have an opinion. Interpreting the data, one can suggest that customers today are relatively familiar with purchasing

online. Hence, the customers have obtained experience, which might decrease their worries about trustworthiness.

#### **4.2.1.4 Privacy**

When we asked the respondents to answer some questions regarding encounters whenever they share personal information with online store, surprisingly, a noticeable part of the respondents had no opinion on several of the questions. Illustrated when we asked the respondents to what extent they feel safe when sending my personal information to the online store, 52 respondents (34%) had no opinion (see appendix 6.1, table 10). However, these missing values may occur if the customers have not shared their original information with online store, hence, they have no references or any fundamental background for answering the question. Having a look at the valid percent, where missing values are excluded, 82.2% of the respondents answered that they feel safe when sending my personal information to the online store. The remaining respondents of 17.9% stated to a varying extent or to a small extent. Thus, the superiority of the respondents who had shared their personal information to the online store felt safe.

The same occurrence with missing values is present in the question when we asked the respondents to what extent they think that the Web site only collects user's personal data that are necessary for its activity. 38 respondents (24.8%) answered that they had no opinion (see appendix 6.1, table 11). However, excluding the missing values, 81.8 valid percent of the respondents answered to a large extent or greater, 17.4 valid percent answered to a varying extent, and 1 respondent (.9 valid percent) reported to a small extent.

These descriptive frequencies suggest that in general, whenever they feel safe when sending my personal information to the online store, they think that the Web site only collects user's personal data that are necessary for its activity.

#### **4.2.1.5 Ease of Use**

Assessing the descriptive frequencies on the variable ease of use, one can see that 84.4% of the respondents' answered that they thought that the online store organized and structured their content, to a large extent or more, considering the page to be easy to navigate (see appendix 6.1, table 12). Nevertheless, 13.7% answered to a varying extent, and only 3 respondents (2%) answered to a small extent or I do not have an opinion. Reporting a low level of negative answers. Additionally, 96.8% of the respondents' answered that they perceive the transaction process and the payment solutions provided by the online store are effective and manageable to a large extent or more (see appendix 6.1, table 13).



#### **4.2.1.6 Security**

The frequency table reports noticeable findings for security. In general, the majority of the respondents feel to a large extent, or greater, secure when purchasing with the online store. When we asked, “I feel safe purchasing at the online store”, 92.8% of the respondents answered they feel to a large extent, or greater, safe when making a purchasing with the online store (see appendix 6.1, table 14). Only 8 respondents (5.3%) expressed that they feel safe to a varying extent or poorer, and 3 respondents (2%) did not have an opinion. This might indicate that the customers are becoming more comfortable and are obtaining more knowledge and experiences about security through encounters. Additionally, the online stores are more focused and aware of that security is an important aspect for the customers. Hence, the customers might become less worried about security with familiar online shops.

#### **4.2.1.7 User Interface Quality**

The respondents were provided with several questions to answer, regarding the variable user interface quality. When we asked to what extent it is easy to navigate and trace the user interactions, 75.8% answered to a large extent or greater (see appendix 6.1, table 15). However, we found that 20.9% answered to a varying extent, 4 respondents (2.7%) answered to a small extent or poorer, and 1 respondent (.7%) answered that he or she did not have an opinion.

However, when the respondents were asked to provide an answer to what extent the information on the Web site is attractively displayed, 73.2% answered to a large extent or greater (see appendix 6.1, table 16). Furthermore, 21.6% answered to a varying extent, and only 4 respondents (2.6%) answered to a small degree. Leaving only 4 (2.6%) respondents to answer “I do not have an opinion”. This might suggest that most of the respondents are aware of the online store’s visual platform, and might be attracted by the visual design.

### **4.2.2 Multiple Regression**

The multiple regression model statistically significantly predicted e-loyalty,  $F(6,67) = 5.776$ ,  $p < .001$  (see appendix 6.2, table 3).  $R^2$  for the overall model was 0.341 with an adjusted  $R^2$  of 0.282 (see appendix 6.2, table 1). This indicates that the independent variables explain 31.4% of the variability of e-loyalty, a medium effect size according to Cohen [139]. Security and trust added statistically significantly to the prediction,  $p < 0.05$  (see appendix 6.2, table 2), while the other constructs did not significantly predict e-loyalty in the equation, giving us the following equation:

$$\text{Predicted E-Loyalty} = 0.329 + (0.299 \times \text{Security}) - (0.356 \times \text{Trust})$$

This suggests that security and trust are predictors of e-loyalty, however, as past research has revealed [14], [19], other online experiences can affect the e-loyalty as well. The lack of correlating coefficients can be an indication of mediation effects, thus we have assessed the hypotheses by running independent linear regressions for each construct, while at the same time checking for mediation.

#### **4.2.2.1 Validity and Reliability**

To ensure the validity and reliability of the analysis, we made sure to meet the assumptions regarding multiple regression. There was a linearity assessed by the plot of studentized residuals against the independent variables, and partial regression plots. Furthermore, there was independence of residuals, determined by the Durbin-Watson statistic of 2.128 (see appendix 6.2, table 1). A visual inspection of the plot of studentized residuals and unstandardized predicted values, revealed a homogeneity of the variance, implying the assumption of homoscedasticity to be met. There was no evidence of multicollinearity, determined by satisfactory results in the correlation table and the collinearity statistics of tolerance and VIF (see appendix 6.2, table 2). There were one studentized deleted residual greater than  $\pm 3$  standard deviations, and four leverage values larger than 0.2. These outliers were inspected, and we chose to keep the items as the cases did not lead to a high influence, determined by the Cook's distance with no values above one. Lastly, the assumption about normality was also met, assessed by a Q-Q plot. Ensuring that these assumptions was met, we managed to obtain a valid and reliable multiple regression.

#### **4.2.3 Linear Regression and Mediation**

Based on the results of the linear regressions, we propose the following conceptual framework regarding e-loyalty within the Sri Lankan retail market (see figure 4.1). The framework depicts the accepted hypotheses, illustrating what online customer experience factors that affects e-loyalty, and which one is mediated by satisfaction. In the analyses we did not find any support for the mediating effect of trust, thus trust has been excluded from the model. In the following sections, we will examine the hypothesis one by one, providing the results regarding their relationships towards online loyalty.

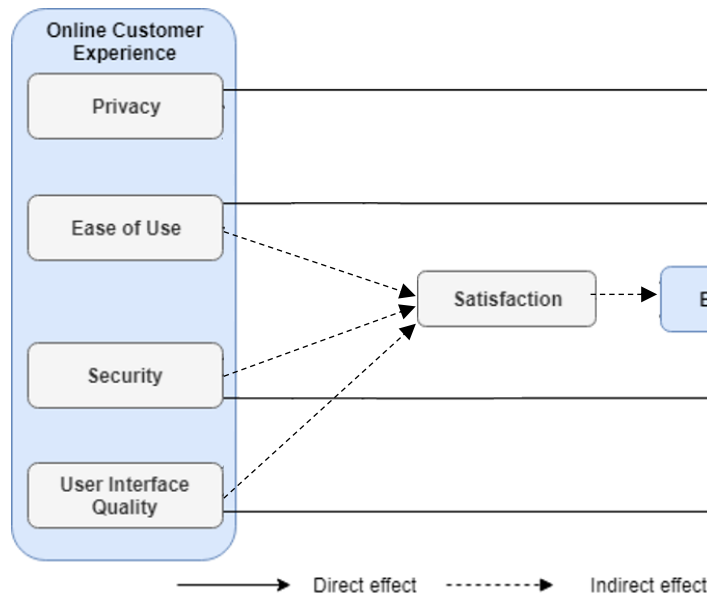


Fig 4.1 Conceptual Framework of e-Loyalty

#### 4.2.3.1 Privacy

##### 4.2.3.1.1 (H1a) Privacy has a positive direct effect on e-loyalty.

For the first hypothesis (H1a), we assessed the relationship between the dependent variable, e-loyalty, and the independent variable privacy. The model was statistically significant, with Privacy predicting e-loyalty,  $F(1,78) = 17.600$ ,  $p < 0.05$  (see appendix 6.3, table 1). The regression suggests that Privacy explains 18.4% ( $R^2 = 0.184$ ) of the variance in dependent variable e-loyalty (see appendix 6.3, table 2). Furthermore, the construct is expected to explain 17.4% of the variation in e-loyalty for the population, with adjusted  $R^2 = 0.174$ . This is a medium effect size [139]. This supports H1a, indicating that Privacy has a direct effect on e-loyalty.

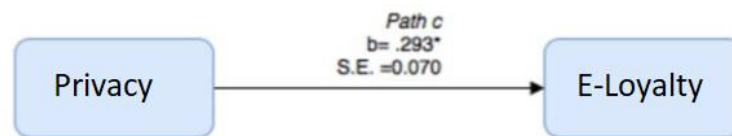


Fig 4.2 Unstandardized Coefficients for the Relationship between Privacy and E-Loyalty  
\* $p < 0.05$

##### 4.2.3.1.2 (H1b) Satisfaction is a mediator between Privacy and e-loyalty.

The second hypothesis (H1b) suggest that privacy's effect on e-loyalty is mediated by customers satisfaction. As assessed by H1a, we found that privacy significantly explained some of the variance of e-loyalty, with an unstandardized beta  $\beta = 0.293$ ,  $S.E. = 0.070$ ,  $p < 0.05$  (see appendix 6.3, table 3). Furthermore, the results for H1b indicates that privacy was a statistically significant predictor of satisfaction,  $\beta = 0.288$ ,  $S.E. = 0.058$ ,  $p < 0.05$  (path a) (see appendix 6.3, table 4), and satisfaction was not a predictor of e-loyalty,  $\beta = 0.197$ ,  $S.E. = 0.135$ ,  $p = 0.149$  (path

b) (see appendix 6.3, table 5). Privacy was still a significant predictor of e-loyalty  $\beta = 0.237$ , S.E. = 0.080,  $p < 0.05$ . These results do not support the mediational hypothesis, as satisfaction did not significantly predict e-loyalty. Based on this, we find is no support for H1B, and thus reject the hypothesis.

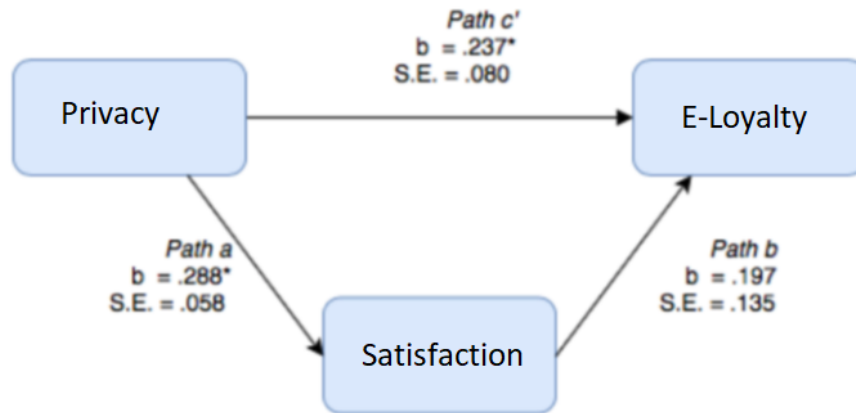


Fig 4.3 Unstandardized Coefficients for the Relationship between Privacy and E-Loyalty, Mediated by Satisfaction. \*  $p < 0.05$

#### 4.2.3.1.3 (H1c) Trust is a mediator between privacy and e-loyalty.

The third hypothesis for the construct privacy assesses the mediating effect of trust on privacy and e-loyalty. The results indicate that privacy was a statistically significant predictor of trust,  $\beta = 0.787$ , S.E. = 0.088,  $p < 0.05$  (path a) (see appendix 6.3, table 6). Furthermore, a regressing with both privacy and trust as predicting variables of e-loyalty revealed that trust was not a significant predictor of e-loyalty (path b),  $\beta = -0.004$ , S.E. = 0.091,  $p = .963$  (see appendix 6.3, table 7). The direct effect was significant (path c'),  $\beta = .297$ , S.E. = 0.434,  $p = < 0.05$ . Even though there was a reduction of the direct effect between privacy and e-loyalty, when accounting for the mediation, the hypothesis was not supported. This result does not entail that trust is a mediator of privacy and e-loyalty, determined by an insignificant effect between trust and e-loyalty. Thus, we reject the hypothesis.

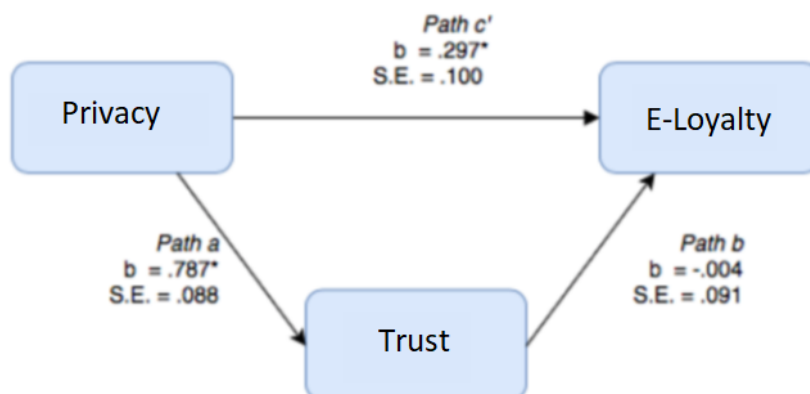


Fig 4.4 Unstandardized Coefficients for the Relationship between Privacy and E-Loyalty, Mediated by Trust. \*  $p < 0.05$

#### 4.2.3.2 Ease of Use

##### 5.3.2.1 (H2a) Ease of use has a positive direct effect on e-loyalty.

For ease of use, we had hypothesis 2a which examined the relationship between the dependent variable, e-loyalty, and the independent variable ease of use. We found the model to be statistically significant, in regards to ease of use predicting e-loyalty,  $F(1,151) = 18.739$ ,  $p < 0.05$  (see appendix 6.3, table 8). Having a look at the  $R^2$ , the regression reports that ease of use explains 11% (0.110) of the variance in the dependent variable e-loyalty (see appendix 6.3, table 9). However, ease of use is expected to explain 10.5% of the variation in e-loyalty for the population, with an adjusted  $R^2 = 0.105$ . This finding supports the hypothesis, indicating that ease of use has a significant direct effect on e-loyalty.

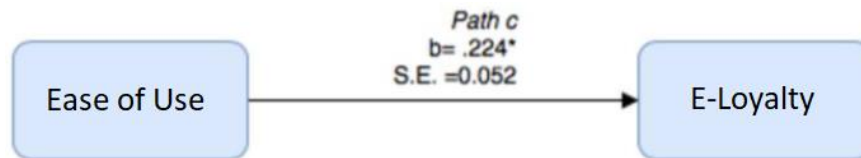


Fig 4.5 Unstandardized Coefficients for the Relationship between Ease of Use and E-Loyalty  
\*  $p < 0.05$

##### 5.3.2.2 (H2b) Satisfaction is a mediator between ease of use and e-loyalty.

The second hypothesis for the construct ease of use (H2b), we hypothesized that customer satisfaction mediates the relationship between ease of use and e-loyalty. H2a statistically significantly show that there is a direct effect ease of use predicts e-loyalty, providing us with a path for the direct effect,  $\beta = 0.224$ ,  $S.E. = 0.052$ ,  $p < 0.05$  (see appendix 6.3, table 10). Assessing the indirect effect, the results indicates that ease of use significantly predicts satisfaction  $\beta = 0.102$ ,  $S.E. = 0.035$ ,  $p < 0.05$  (see appendix 6.3, table 11), and that satisfaction significantly predicts e-loyalty  $\beta = 0.378$ ,  $S.E. = 0.116$ ,  $p < 0.05$  (see appendix 6.3, table 12). As displayed in figure 4.6, one can see a significant direct effect of path  $c'$  between ease of use and e-loyalty,  $\beta = 0.185$ ,  $S.E. = 0.052$ ,  $p < 0.05$ . This is consistent with a partial moderation, as  $0 < c' < c$ . The indirect effect was tested using Sobel's test, indicating a significant partial mediation,  $p < 0.05$ . Furthermore, the predictors accounted for approximately 17% of the variance in e-loyalty,  $R^2 = 0.169$  (see appendix 6.3, table 13). One can thus conclude that ease of use has an indirect effect on satisfaction, partially moderated by satisfaction, and we accept the hypothesis.

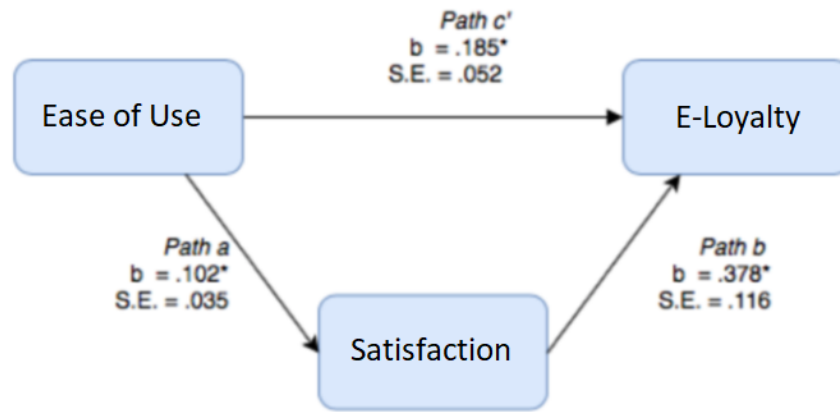


Fig 4.6 Unstandardized Coefficients for the Relationship between Ease of use and E-Loyalty, Mediated by Satisfaction. \*  $p < 0.05$

#### 4.2.3.3 Security

##### 4.2.3.3.1 (H3a) Security has a positive direct effect on e-loyalty.

For hypothesis 3a, we examined the relationship between the independent variable security and the dependent variable e-loyalty. Conducting a linear regression, we found the model to be statistically significant, where security has an impact on e-loyalty,  $F(1.151) = 15.931$ ,  $p < 0.05$  (see appendix 6.3, table 14). Further, the regression suggests that security explains 9.5% ( $R^2 = 0.095$ ) of the variance in the dependent variable loyalty. Considering the variation in e-loyalty for the population, security is expected to explain 8.9% with an adjusted  $R^2 = 0.089$  (see appendix 6.3, table 15). The regression suggests that security has a direct effect on e-loyalty, and we accept H3a.

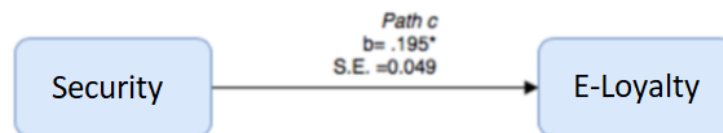


Fig 4.7 Unstandardized Coefficients for the Relationship between Security and E-Loyalty  
\*  $p < 0.05$

##### 4.2.3.3.2 (H3b) Satisfaction is a mediator between security and e-loyalty.

Assessing H3b: Satisfaction is a mediator between security and e-loyalty, H3a proves that security statistically significantly predicts online loyalty, with an unstandardized beta of 0.195, S.E. 0.049 (see appendix 6.3, table 16). The regressions of the mediating effect, path a suggest that security significantly predicts satisfaction,  $\beta = 0.157$ , S.E. = 0.031,  $p < 0.05$  (see appendix 6.3, table 17). Moreover, path b indicates that there is a relationship with satisfaction statistically significantly predicting e-loyalty,  $\beta = 0.346$ , S.E. = 0.124,  $p < 0.05$  (see appendix 6.3, table 18). The effect for the direct path (c') is reduced, but not statistically different from zero, consistent with a partial moderation  $\beta = 0.141$ , S.E. = 0.052,  $p < 0.05$ . The direct effect predicts 14% of the

variance in the construct e-loyalty, and it is estimated to predict 12.9% of the variance of e-loyalty within the population,  $R^2 = 0.140$ , adjusted  $R^2 = 0.129$  (see appendix 6.3, table 19). Assessing the p-value, determined by the Sobel test, indicates a significant moderation effect with  $p < .05$ . Based on these results, we accept H3b, suggesting that satisfaction partially moderates the effect between security and online loyalty.

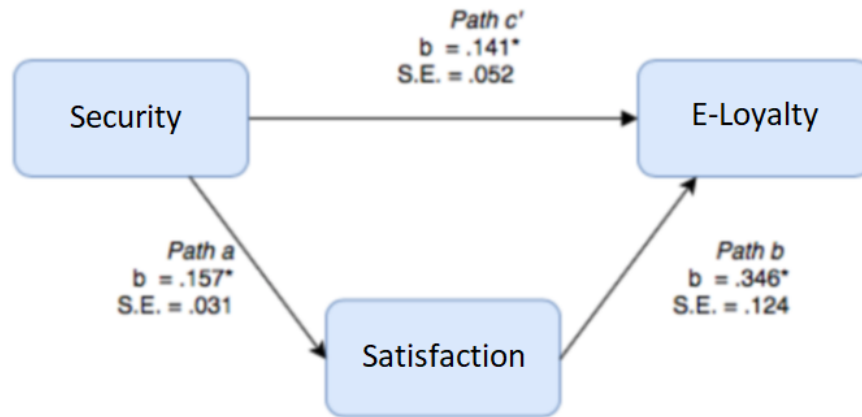


Fig 4.8 Unstandardized Coefficients for the Relationship between Security and E-Loyalty, Moderated by Satisfaction. \*  $p < 0.05$

#### 4.2.3.3.3 (H3c) Trust is a mediator between security and e-loyalty

For this construct, we also hypothesized that security has an indirect effect on e-loyalty, mediated by the consumers' trust with an online store (H3c). The results indicate that security statistically significantly predicts e-loyalty,  $\beta = 0.655$ , S.E. = 0.058,  $p < 0.05$  (see appendix 6.3, table 20). However, the results revealed that trust did not significantly predict e-loyalty,  $\beta = -0.050$ , S.E. 0.069,  $p = 0.470$  (see appendix 6.3, table 21). Looking at figure 4.9, one can see that the direct effect was significant,  $\beta = 0.228$ , S.E. 0.067,  $p < 0.05$ . These results indicate that trust does not mediate the relationship between satisfaction and e-loyalty. Both path a and b need to be significant for a mediation effect to be accepted. As trust did not significantly predict e-loyalty, we reject the hypothesis.

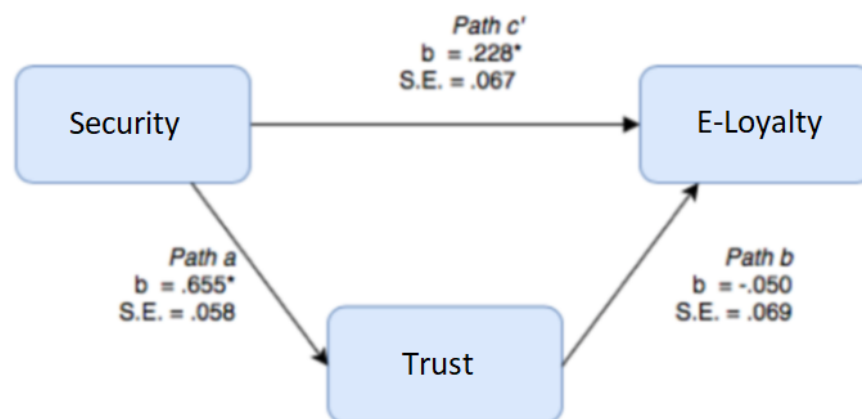


Fig 4.9 Unstandardized Coefficients for the Relationship between Security and E-Loyalty, Moderated by Trust. \*  $p < 0.05$

#### 4.2.3.4 User Interface Quality

##### 4.2.3.4.1 (H4a) User Interface Quality has a direct effect on e-loyalty.

The regression computed for user interface quality, assessed the fourth hypothesis (H4a), regarding the relationship between the independent variable user interface quality and the dependent variable e-loyalty. Throughout the regression, the model reported to be statistically significant, interpreting that user interface quality has an impact on e-loyalty,  $F(1.137) = 22.716$ ,  $p < 0.05$  (see appendix 6.3, table 22). Assessing the model summary, we found that user interface quality explains the variation in the dependent variable, e-loyalty, to be 14.2% with a  $R^2$  of 0.142 (see appendix 6.3, table 23). Further, user interface quality is expected to explain 13.6 of the variation in e-loyalty for the population (adjusted  $R^2 = 0.136$ ). Hence, user interface quality is statistically proven to have a direct effect on e-loyalty, and we accept the hypothesis.

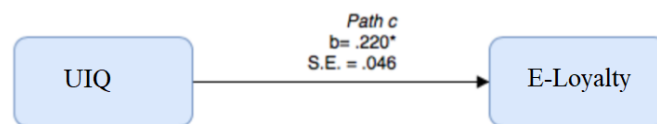


Fig 4.10 Unstandardized Coefficients for the Relationship between User Interface Quality and E-Loyalty \*  $p < 0.05$

##### 4.2.3.4.2 (H4b) Satisfaction is a mediator between User Interface Quality and e-loyalty.

We also hypothesized that user interface quality has an indirect effect on e-loyalty, mediated by satisfaction (H4b). User interface quality has been proven to be a predictor of e-loyalty, with an unstandardized beta of 0.220, S.E. 0.046,  $p < 0.05$  (see appendix 6.3, table 24). The regression indicates that user interface quality significantly predicts satisfaction,  $\beta = 0.123$  S.E. 0.032,  $p < 0.05$  (see appendix 6.3, table 25), and that there is a significant relationship of satisfaction predicting e-loyalty,  $\beta = 0.301$  S.E. 0.119,  $p < 0.05$  (see appendix 6.3, table 26). The direct effect between user interface quality and loyalty is statistically significant,  $\beta = 0.183$  S.E. = 0.048,  $p < 0.05$ , which is consistent with a partial mediation effect,  $0 < c' < c$ . This indicates that user interface quality, mediated by satisfaction accounts for approximately 18.8% ( $R^2 = 0.181$ ) of the variation of e-loyalty (see appendix 6.3, table 27). The mediation was significant, determined by Sobel's test of significance,  $p < 0.05$ , thus we accepted H4b.



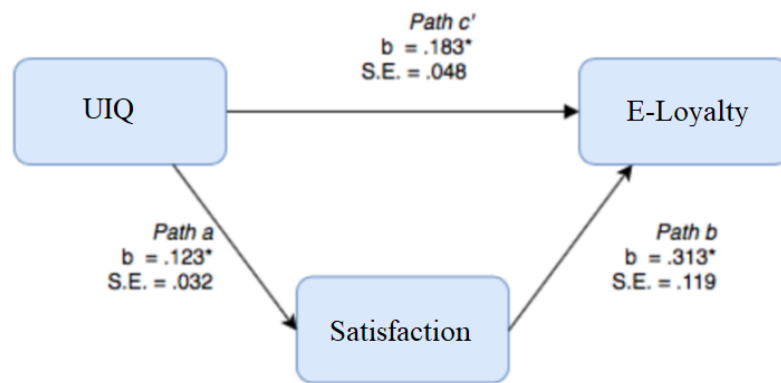


Fig 4.11 Unstandardized Coefficients for the Relationship between User Interface Quality and E-Loyalty, Moderated by Satisfaction. \*  $p < 0.05$

#### 4.2.3.5 Validity and Reliability

To ensure the validity and reliability of the analyses, we made sure to meet the assumptions regarding linear regressions. Similar with the multiple regression, we have one dependent variable, e-loyalty, and independent variables *Privacy*, *Ease of Use*, *Security* and *User Interface Quality*, all measured on an ordinal level but treated as continuous variables to be able to proceed with the analysis.

Linearity was established between e-loyalty and the each of the constructs, determined by a visual inspection of the scatterplots of e-loyalty against each construct. There was independence of residuals, determined by Durbin-Watson statistics being approximately 2 (see appendix 6.3). No significant outliers were found for either of the constructs. Furthermore, visual inspections of the plots of standardized residuals against standardized predicted values, and the normal probability plots (P-P Plots), revealed homoscedastic and normal distributed residuals for all constructs. This entails that the analyses done met the assumptions regarding reliable and valid linear regressions.

#### 4.2.4 Summary and Main Findings

- Privacy has a statistically significantly positive direct effect on e-loyalty, explaining 18.4% of the variation of e-loyalty.
- Satisfaction and trust did not act as mediators between Privacy and e-loyalty.
- Ease of use has a significantly direct effect predicting e-loyalty. The construct accounts for 11% of the variation in e-loyalty.
- Satisfaction had a significant partial mediating effect, between ease of use and loyalty. Mediated by satisfaction, ease of use explains 17% of the variation on e-loyalty.
- Security has a significant direct effect, predicting 9.5% of the variation in e-loyalty.

- Satisfaction was statistically significantly proven to be a partial mediator between security and e-loyalty, explaining 14% of the variation in e-loyalty. However, trust did not mediate the relationship.
- User interface quality has a statistically significantly direct effect on e-loyalty, predicting 14.2% of its variation.
- User interface quality has an indirect effect on e-loyalty, statistically significantly partial mediated by satisfaction. The predictors explained 18.8% of the variation in e-loyalty.
- Trust was not found to be a mediator for any of the constructs.

### 4.3 Enhancing e-Loyalty with Prototype

Results from multiple regression model (see appendix 6.2, table 2) and the findings from both qualitative and quantitative analysis give insights that e-loyalty is positively related with privacy, ease of use, security, user interface quality and satisfaction. We have developed a prototype of an e-commerce website (see appendix 7) using that insights considering costumer experience factors; privacy, ease of use, security and user interface quality, also trust and satisfaction [14]. Here we have focused of user interface design dimensions on initial trust and satisfaction such as visual design, social cue design and content design as explained in Chapter 2. We made user interactions which could provide better usability experience [67], [70]. We seriously considered security and privacy features to build trust and satisfaction. User interface quality is the main consideration here because this is where the users interact with the online store in order to perform and transaction [104].

Here we conducted a survey (see appendix 4) again only with factors with privacy, ease of use, security, user interface quality and satisfaction, then calculated weighted average scale from survey responses of each factor. We compared new weighted average values for each and every factor with earlier values as shown in table 4.1 and found there has been an improvement. Thus, we have identified and enhanced e-loyalty using online customer experience factors; privacy, ease of use, security, user interface quality and also satisfaction.

| Factors                | Weighted Scale Earlier<br>(out of 5) | Weighted Scale After<br>(out of 5) (with prototype) |
|------------------------|--------------------------------------|-----------------------------------------------------|
| Privacy                | 2.90                                 | 3.51                                                |
| Ease of use            | 3.39                                 | 3.78                                                |
| Security               | 3.00                                 | 3.12                                                |
| User interface quality | 4.12                                 | 4.33                                                |
| Satisfaction           | 3.29                                 | 3.89                                                |

Table 4.1 Weighted Average of Factors Earlier and After with Prototype

# Chapter 5

## Discussion

This research demonstrates how online customer experience and satisfaction is related to e-loyalty, and how trust does not seem to be related to e-loyalty within the Sri Lankan market. Examining literature regarding online loyalty, there is no other research that has looked into how online customer experience affects Sri Lankan consumers to become loyal towards an online store. By developing a framework based on previous research on loyalty, both online and offline, we have been able to provide a deeper understanding of how online customer experience affects e-loyalty within the Sri Lankan market. The research also provides insights regarding the mediating effects of satisfaction on the relationships between the various customer experience factors and e-loyalty. Furthermore, the research demonstrates that trust does not mediate these relationships.

Gommans, Krishnan, & Scheffold [8] reveals that customer experience factors such as the customer service, website and technology, trust, and satisfaction influences e-loyalty. This implies that a good customer experience, in regards to various experiential factors can lead to a higher online loyalty. Analyzing the different factors of online customer experience, we found similar relations in the Sri Lankan market. This research suggests that all of the chosen factors of online customer experience; user interface quality, ease of use, security, and privacy, had a significant relationship, predicting e-loyalty.

Furthermore, insights from the in-depth interviews support this notion. The interviews revealed that customers who have a great experience when purchasing goods online is more likely to make a repurchase in the nearest future. The respondents further stated that a bad customer experience, as a result of poor customer service, a complex purchasing process, or if the

expectations are deluded by the information provided (e.g. product information), it diminishes the likelihood of a repurchase. These findings indicate that online customer experience influences e-loyalty within the Sri Lankan market, confirming previous research conducted in foreign markets.

## **5.1 The Impact of Privacy on E-Loyalty**

Privacy is found to be strong determinants of e-commerce trust. This means that privacy in the perception of Sri Lankan consumers are more important for e-commerce trust. The strong relationship between privacy and customer satisfaction indicate that Sri Lankan online customers consider this factor as a direct determinant for their satisfaction with e-commerce websites. However, e-commerce trust was not found to play a complete mediating role between privacy and e-loyalty. This implies that privacy influence e-loyalty directly. Also, since privacy is found to be strongly related to trust, this means that Sri Lankan online customers seem to consider the security symbols and features such as online payment processing and other privacy assurances as part of privacy aspects of e-commerce websites which may lead them to the website as trustworthy. Thus, Sri Lankan online customers were found to be satisfied e-commerce websites based on the privacy features, and the level of privacy protection provided.

## **5.2 The Impact of Ease of Use on E-Loyalty**

Our results suggest that ease of use is a significant predictor of e-loyalty in the Sri Lankan e-commerce market, which is supporting the findings in research conducted by Gefen, Karahanna, & Straub [99] and Rose et al. [14]. Developing a digital platform that is encouraging customer friendly navigation, increases the likelihood of customer loyalty. According to our in-depth interviews, ease of use is a crucial factor when purchasing online. Some of the interviewees even stated that they might consider not to purchase if the online store is difficult to handle and navigate. On the contrary, they stated that if the online store was easy to navigate, with the process being seamless, the respondents would more likely return to the online store for another purchase. This suggests that the construct ease of use is an important factor that needs to be sufficient for Sri Lankan consumers to become loyal towards an online retailer.

## **5.3 The Impact of Security on E-Loyalty**

Consistent with previous research conducted in foreign markets, this research reveals that security also is an important aspect in predicting online loyalty in the Sri Lankan market [51]. Furthermore, the results suggest that the relationship between security and online loyalty is stronger when the customer is satisfied with the security of the online store. This insight was confirmed in the in-depth interviews, where the interviewees stated that security is an important

factor when purchasing goods online. They further stated that the level of security can affect them to become a loyal customer. This supports Dhiranty, Suharjo, & Suprayitno's research [64], suggesting that consumers tend to be more satisfied the greater the security that is associated with an online purchase, further making them more likely to become loyal towards the online retailer.

## **5.4 The Impact of User Interface Quality on E-Loyalty**

User interface quality is also found to be a significant predictor of loyalty in an online context within the Sri Lankan market. As an online purchasing process might demand more of a customer's attention in terms of them finding the products, evaluating and finalizing the whole process by themselves with understandable user interactions, the notion of making a joint value creation through user interface becomes important [137]. Consistent with past research [137], user interface quality is also an important aspect of the online customer experience within the Sri Lankan market. Moreover, this research suggests that the relationship between user interface quality and online loyalty is mediated by satisfaction. By creating a compelling and unique experience with the company, the consumer becomes more satisfied with their purchase, encouraging them to become loyal towards the online store.

Our in-depth interviews contribute with insights revealing that the Sri Lankan consumers are more likely to become loyal when being satisfied with the online purchasing experience with better user interface quality, supporting this finding.

## **5.5 Satisfaction Mediates the Impact of Customer Experience Dimensions (Privacy, ease of use, security and user interface quality)**

This research supports the notion of customer experience being an important driver of satisfaction, which in turn drives loyalty [34]. We found that satisfaction had a mediating effect on the relationships between the online customer experience factors; ease of use, security, and user interface quality but privacy, towards e-loyalty. In fact, the mediating effect increased the factors prediction of e-loyalty, implying that the effect between online customer experience and e-loyalty becomes stronger when the Sri Lankan customers are satisfied with their customer experience. This is consistent with findings from research conducted by Oliver [34] and Rose et al. [14], indicating that the mediating effect of satisfaction affects the relationship between online customer experience factors and e-loyalty. Furthermore, the in-depth interviews confirmed this finding, with the respondents stating that satisfaction was one of the most crucial factors when being loyal towards an online retailer.

## **5.6 Trust Mediates the Impact of Customer Experience Dimensions (Privacy, ease of use, security and user interface quality)**

In contrast to satisfaction, trust was not found to be a mediator of the relationship between the customer experience factors and e-loyalty. Past research has recognized trust to be an important mediator in regards to online loyalty [14], [16], however, this effect was not found among the Sri Lankan consumers regarding online purchases. Examining the results from the in-depth interviews revealed that Sri Lankan consumers generally perceive online stores to be trustworthy, and considers the risks associated with online purchases to be minimal. Further, the interviewees stated that they have been purchasing good online for many years, even as long as the past two decades.

This can indicate that many of the Sri Lankan consumers have become heavy online shoppers, who assign more trust towards online retailers the more experienced they become with online purchases [41]. Moreover, the consumers can thus have become very familiar and experienced with online purchasing, suggesting that they might take the trustworthiness of an online store for granted. This can imply that the mediating effect of trust is not significant with the Sri Lankan e-commerce market, as the mediation effect does not increase the prediction of online loyalty in Sri Lanka.

The interviews also revealed that consumers can be skeptical towards “sketchy” online stores. Most of the participants stated that they generally tend to purchase from online stores that provide a Sri Lankan digital platform, with a Sri Lankan customer service, often located in Sri Lanka. The consumers tend to perceive Sri Lankan stores to be reliable, and thus trustworthy, both in an online and offline context. Even though many of the popular online stores amongst Sri Lankan customers are in fact not Sri Lankan, it can seem like they meet the Sri Lankan “standard” of being a trustworthy online store. In light of this, one can assume that the Sri Lankan customers in some way expect or takes for granted that an online store is trustworthy. Thus, trust does not add to the relationship between online customer experience and e-loyalty, as the consumers might consider trust to be a hygiene factor, expecting it to be present.

# Chapter 6

## Conclusion and Recommendations

### 6.1 Conclusion

This research provides an understanding of how various customer experience factors affects online loyalty within the Sri Lankan e-commerce market. The results are consistent with previous literature, suggesting that customer experience is an important factor, consisting of various aspects, that can affect whether a customer becomes loyal towards an online retailer or not. Further, the research supports previous literature, suggesting that satisfaction acts as a mediator, enhancing the relationship between customer experience factors and online loyalty. Even though trust previously has been found to be a mediator between online customer experience and e-loyalty, we did not find support for this relationship in the Sri Lankan market. This is a new contribution to the concept of online loyalty, indicating that Sri Lankan consumers might consider trust to be a hygiene factor, expecting online stores to be trustworthy. Examining the relations tied to online loyalty in the Sri Lankan market, one can find many similarities with the relations in foreign markets. However, it can seem like the Sri Lankan consumers are experienced with online purchasing, affecting some of the relations tied to online loyalty.

This research has contributed to valuable insights regarding online loyalty, especially concerning Sri Lankan consumers. By drawing on existing research we have managed to develop a model that explains how online customer experience and satisfaction affects online loyalty in the

Sri Lankan market. While at the same time contributing to a new understanding regarding the non-mediating effect of trust in regards to Sri Lankan consumers.

## 6.2 Managerial Implications

Based on the findings from this research, there are some managerial implications regarding online loyalty and customer experience online, that managers could take into consideration. Factors of customer experience were found to have a significant impact on customer loyalty in an online environment. This entails that it is important for managers to be aware of customer experience throughout the whole purchasing process, for the firm to be able to retain a loyal customer base. Furthermore, Verhoef et al. [12] discussed that the creation of a good customer experience is linked to an effective retail management, which in turns leads to a profitable outcome for the company. Drawing on this, one can say that a good customer experience leads to higher loyalty, which in turn affects the profitability positively. Being able to create a good customer experience, and thus be open-minded to innovate their distinctive processes, can enable managers to attract loyal customers, enhancing the profitability of the firm.

Furthermore, satisfaction was found to have a significant mediating effect between the customer experience factors (ease of use, security, and user interface quality) and e-loyalty. The results indicated that satisfaction enhanced the relationships, implying that satisfaction is an important aspect that need to be taken into consideration when creating loyal customers online. Managers should aim for satisfied customers in regards to the ease of use of their online store, the security provided and a unique user interface/interaction for value creation. By ensuring the online store to be intuitive and easy to navigate, having a satisfactory level of security, and an engaging purchasing process that motivated the consumers to purchase, the customers will become more satisfied, and thus more loyal towards the online store.

Even though the mediating effect of trust, on the relationship between customer experience and e-loyalty was found to not be significant in the Sri Lankan market, it is still important for managers to make sure that the consumer finds their online store trustworthy. Our results can suggest that the Sri Lankan consumes more or less expect an online store to be trustworthy, hence it is crucial for an online store to meet these expectations. Managers should make sure that their online store appears trustworthy, by e.g. providing reliable and accurate information regarding the products and the purchasing process, or by displaying customer reviews of the online store. If the store fails to meet customer expectation regarding trust, the store will most likely suffer, as it can seem like trust can be characterized as a hygiene factor within the Sri Lankan market.



Another managerial implication that should be taken into account regards the privacy protection provided. Privacy was found to have a significant impact on e-loyalty. This implies that the privacy is an important driver of online loyalty in the Sri Lankan market. Our in-depth interviews reveal that a collecting only necessary user's personal data, handling personal information as promised, fully controlling over personal data on the online store, as well as allowing to manage/customize privacy settings are vital aspects of the privacy. Thus, managers should pay an emphasis on this matter, ensuring that their privacy protection meets customer expectation.

The ease of use, and thus how easy the online store is to navigate and make a purchase from can affect the Sri Lankan customers' loyalty towards an online retailer. Managers should aim to make a seamless online store, that is intuitive and easy to navigate, to increase the likelihood of loyal customers online. Thus, managers should not neglect the appearance of their online store. The results from this research suggest that the higher the level of ease of use, the more satisfied is the customer, making them more likely to be loyal towards the online store.

Based on the results from this research, managers should also take their level of security offered into consideration, when pursuing e-loyalty in Sri Lanka. Satisfaction was found to have a significant relationship predicting e-loyalty, and it further becomes more important when being mediated by satisfaction. Online stores should thus focus on the security tied to an online transaction with the firm. To increase the consumers' satisfaction regarding the security, managers can make sure to provide reliable and well-known payment solutions and assure the consumers that their personal information will not be used for any other purpose than completing a purchase. The likelihood of creating a loyal customer base increases by creating satisfied customers in regards to the security offered.

An online retail environment entails that a company must interact with the consumers in a different way than within a physical store. Entering an online store, the consumer creates a unique experience with the company, interaction with user interfaces. This is an important aspect that managers need to recognize within an online retail context. This research suggests that user interface quality can predict e-loyalty and that this prediction increases with the customer satisfaction in the Sri Lankan market. By creating a unique platform quality user interfaces meeting the consumers' expectations, and at the same time persuade them, an online store can retain a satisfied customer base, increasing the likelihood of future purchases. Research suggests that the more a customers' willingness to interact with user interfaces, the more satisfied the customer becomes [138]. Thus, managers should aim to satisfy their customers by providing them with an arena where it is possible to create value.

### 6.3 Limitations and Future Research

There are some limitation and errors of this research, that should be considered when interpreting the results. First, our model does not take into account all aspects of the online customer experience that might affect online loyalty. When we decided upon what factors to include in our model, we examined various models and carry forward with the most common factors mentioned; user interface quality, security, ease of use and privacy.

Further, the research has a limitation that concerns the distribution of men and women being not as equally represented as it should have been. However, the division was not a great problem, when 64.1% were women and 35.9% where men (see appendix 5.1, table 2). This is a minor limitation, as the distribution was relatively equal, making the research representative for the Sri Lankan population.

Third, due to culture differences, the result represents a low level of generalizability for other foreign markets [13]. However, the patterns of Sri Lankan online loyalty can give an indication of what factors affect consumers to become loyal towards an online retailer in similar markets, especially within the South Asian countries.

Moreover, we asked the respondents to answer the questions while thinking about their last purchase, which can lead to another limitation of this research. The distribution of loyal and disloyal customers thus might be unevenly represented, as they based their answers on their most recent online purchase. In addition, the respondents were asked to state an online store selling goods, regardless of its industry. This implies that the research does not contribute to insights regarding a specific industry, meaning that the results reveal a more general perspective of online loyalty in the Sri Lankan market.

When we assessed the construct loyalty with Pearson correlation, we found that all, except from two questions, had a sufficient correlation over 0.3. The insufficiency might be due to English language understanding barriers when we participants need to translate the questions from English to Sinhala or Tamil. The two questions that did not have sufficient correlations were still included, due to high internal consistency for the construct in general, making the limitation minimal.

Our sample size might be perceived as a relatively small sample. We collected 153 representative respondents, that were asked to think of their last purchase while answering the questions. This might have limited the results, as the participants might not have experienced all the different statements in regards to their last online purchase. This affected some of the constructs, as the respondents answered that they did not have an opinion regarding irrelevant

statements. This lowered the response rate for certain statements. However, this was only an issue for some questions, and the level of missing values was thus not of a considerable size.

Overall, despite the limitations, this study provides a better understanding of the Sri Lankan online loyalty, and what affects Sri Lankan consumers to become loyal towards an online retailer. Theoretical knowledge between the relationship of online customer experience factors, satisfaction, trust and online loyalty is extended and some useful managerial insights are provided. Our research contributes to new insights, and a representative model, developed and statistically tested. Future research can add to this model, further investigating other variables that might extend the understanding of online loyalty.

We included six representative variables in our study, facilitating the extensive level of the study. Further research can include other factors that might have an impact on e-loyalty, contributing with extended knowledge to the research area.

Additionally, we did not consider the impact of marketing. E-retailers are depending on marketing and promoting the features of the products or services, to be able to compete against the other actors in the market. As the switching-cost tied to purchases might be lower in an online context, this could be an interesting topic to include in further research. When we examined the previous literature for this research, assessing theoretical models, we did not find marketing to be a common aspect for these models. However, this aspect can be interesting to include for further research within the topic.

This research aimed to investigate the Sri Lankan market. It could be interesting to assess the model we developed in other foreign markets. By doing so, one can detect cultural and international differences, as well as mapping another market for these factors.

Further research can focus on targeting disloyal customers, analyzing their behavior and what factors that might have an impact on becoming a disloyal customer. One can find with factors that are crucial for the online stores to either avoid or cope with, disloyal customers. This might help the online stores to be aware of which factors that are pitfalls and with factors they need to incorporate, gaining a loyal customer base.

This research has taken a general approach towards online loyalty in the Sri Lankan market. Meaning that we have not focused on the loyalty construct in any specific industry. We suggest that it could be interesting for further research, to address this topic in a distinctive industry. This will enhance the accuracy of the results when the research area is more narrowed and specific.



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# APPENDIX

## Appendix 1: In-depth Interview guide

**Introduction:** I am writing a thesis regarding the e-commerce industry. The following questions will be on this matter, and concern the online retail industry of consumer goods.

Age:                                      Gender:                                      Occupation:                                      Residence:

*Q: Why do you choose to shop online? Are there any advantages or disadvantages by purchasing goods online than in a physical store?*

|                            |                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cognitive                  | How often do you purchase goods online?                                                                                                                                                                                                                                                                                                                                             |
|                            | Do you have an opinion of how much you spend on your online purchases yearly?                                                                                                                                                                                                                                                                                                       |
|                            | Approximately how much of your yearly purchases are done online? (in percentage)                                                                                                                                                                                                                                                                                                    |
|                            | When you are purchasing goods online, what kind of goods do you typically purchase?                                                                                                                                                                                                                                                                                                 |
|                            | During the last year, have the number of online purchases increased or decreased?                                                                                                                                                                                                                                                                                                   |
|                            | Do you feel that It is easier or harder to purchase goods online compared to a physical store?                                                                                                                                                                                                                                                                                      |
|                            | If you choose to purchase something online, why do you choose this option, rather than purchasing goods in a physical store?                                                                                                                                                                                                                                                        |
|                            | For you as a customer, what is more important; the price of the product, or the quality of the product?                                                                                                                                                                                                                                                                             |
|                            | We have noticed that several Sri Lankan stores (both physical and online) have begun to compare their own prices with "Price search engines" (Eg: Kapruka price checker) on (online websites displaying the current prices of a given product, enabling consumers to find the best offering). Is this something you also tend to do, comparing prices through price search engines? |
|                            | If yes, is it likely that you will find the best offering by using these price search engines?                                                                                                                                                                                                                                                                                      |
| Affective                  | Do you feel that it is safe to purchase goods online?                                                                                                                                                                                                                                                                                                                               |
|                            | What factors makes it safe or unsafe to purchase goods online?                                                                                                                                                                                                                                                                                                                      |
|                            | Do you have any characteristics or features you are looking for when deciding upon whether the online store is reliable or not?                                                                                                                                                                                                                                                     |
|                            | Does these features/ characteristics affect your online purchasing behavior?                                                                                                                                                                                                                                                                                                        |
| Trust                      | Do you tend to avoid online stores you do not trust, or does not seem legitimate?                                                                                                                                                                                                                                                                                                   |
|                            | To what degree does the trustworthiness of an online store affect you as a customer?                                                                                                                                                                                                                                                                                                |
|                            | In terms of trustworthiness, what factors and/or characteristics can increase or strengthening your perception of a safe online store?                                                                                                                                                                                                                                              |
| Online shopping in general | What factors and/or characteristics can decrease or weaken the trustworthiness of an online store?                                                                                                                                                                                                                                                                                  |
|                            | Have you had any especially good or especially bad customer experiences when purchasing goods online? What made this experience good or bad?                                                                                                                                                                                                                                        |
|                            | Is it likely that you are going to purchase something from this firm again?                                                                                                                                                                                                                                                                                                         |
|                            | Do you have any examples of firms performing outstanding (good) customer handling? Why? What do you think could be the reason for this good impression?                                                                                                                                                                                                                             |
|                            | Do you have any examples of firms performing poor (bad) customer handling? Why? What do you think could be the reason for this bad impression?                                                                                                                                                                                                                                      |
| Social: Customer Service   | What type of actions/ implementations are the online stores exhibiting to take care of your needs as a customer through the whole buying process? (from start to end)                                                                                                                                                                                                               |
|                            | do you feel that most of the online stores practice these actions?                                                                                                                                                                                                                                                                                                                  |
|                            | Which of these are the most important/relevant considering you as a customer?                                                                                                                                                                                                                                                                                                       |
|                            | If you are to contact the online store, which platform do you prefer to use? (email, chat, Facebook, phone, other)                                                                                                                                                                                                                                                                  |
|                            | Why do you choose this/these platform?                                                                                                                                                                                                                                                                                                                                              |
|                            | How often do you make contact with the online stores?                                                                                                                                                                                                                                                                                                                               |
|                            | What is your usual questions?                                                                                                                                                                                                                                                                                                                                                       |
|                            | Do you ask many product related questions?                                                                                                                                                                                                                                                                                                                                          |
|                            | Do you ask many transportation and delivery related questions?                                                                                                                                                                                                                                                                                                                      |
|                            | How do you experience the complaint and return managed by online stores?                                                                                                                                                                                                                                                                                                            |
| Extrinsic                  | What are you satisfied with/not satisfied with?                                                                                                                                                                                                                                                                                                                                     |
|                            | To what extent do you experience that the websites are user/customer friendly?                                                                                                                                                                                                                                                                                                      |
|                            | To what extent does it affect your purchase?                                                                                                                                                                                                                                                                                                                                        |
| Customer                   | Considering repurchases and/or how much you end up buying, ow does it affect?                                                                                                                                                                                                                                                                                                       |
|                            | How will you define a good customer experience? (satisfaction)                                                                                                                                                                                                                                                                                                                      |
|                            | What is your impression of which type of actions online stores implement to excel with customer experience?                                                                                                                                                                                                                                                                         |
|                            | Do you think it is a strategic challenge for online stores not to have physical contact with the customers? (face to face) Explain.                                                                                                                                                                                                                                                 |
| Loyalty                    | Are there any online stores that you chose to purchase more from than others?                                                                                                                                                                                                                                                                                                       |
|                            | Why do you come back to these online stores?                                                                                                                                                                                                                                                                                                                                        |
|                            | What are the criteria which determines and/or persuade you to make a repurchase with a specific online store?                                                                                                                                                                                                                                                                       |
|                            | Are there any factors that make you not want to make a repurchasing with a specific online store?                                                                                                                                                                                                                                                                                   |
|                            | Do you feel less loyal when you make purchases online, than for physical stores?                                                                                                                                                                                                                                                                                                    |
| General                    | Is there anything you want to add considering customer experience?                                                                                                                                                                                                                                                                                                                  |

Thank you for helping us with my thesis. This information has been very useful, and will certainly be valuable for the research.

## Appendix 2: In-depth Interviews

| Introduction | Participant 01 |        |            |           |                                                                                                                                  | Participant 02                          |                                                                               |                                                                                  |                                                                                     |                                                                                   | Participant 03                                                                                                                               |        |         |       |                                                                                                                                      | Participant 04             |             |                                                 |                                                                                      |                                                                       | Participant 05                              |      |         |            |                                                     | Participant 06                                              |        |         |        |                                                   |                                                                                                                                      |  |  |  |  |  |  |  |  |        |                              |  |  |  |  |  |  |  |  |                                |                                                             |  |  |  |  |  |  |  |  |  |
|--------------|----------------|--------|------------|-----------|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|--------|---------|-------|--------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------------|-------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------|---------------------------------------------|------|---------|------------|-----------------------------------------------------|-------------------------------------------------------------|--------|---------|--------|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--------|------------------------------|--|--|--|--|--|--|--|--|--------------------------------|-------------------------------------------------------------|--|--|--|--|--|--|--|--|--|
|              | Age            | Gender | Occupation | Residence | Why do you choose to shop online? Are there any advantages or disadvantages by purchasing goods online than in a physical store? | How often do you purchase goods online? | Do you have an opinion of how much you spend on your online purchases yearly? | Approximately how much of your yearly purchases are done online? (in percentage) | When you are purchasing goods online, what kind of goods do you typically purchase? | During the last year, have the number of online purchases increased or decreased? | 22                                                                                                                                           | Female | Student | Kandy | More convenient, more frequent campaigns, broader product specter, delivery on your doorstep and the possibility for partly payment. | Approximately once a month | 100,000 LKR | Purching about 20% online of my total spending. | Cosmetics and clothes. I am purchasing when I receive good offers, or if I am bored. | Purchasing less now. Before I purchased products that I did not need. | 22                                          | Male | Student | Kurunegala | Convenient, when I can make my purchases from home. | Convenient, easy, and there are often better prices online. | Female | Student | Jaffna | Amparai                                           | Mostly to avoid a lot of people and avoid using a lot of time in stores. Shopping online is easy, convenient and not time consuming. |  |  |  |  |  |  |  |  |        |                              |  |  |  |  |  |  |  |  |                                |                                                             |  |  |  |  |  |  |  |  |  |
| Cognitive.   |                |        |            |           |                                                                                                                                  |                                         |                                                                               |                                                                                  |                                                                                     |                                                                                   | Approximately 5 times a month, and I will most likely purchase even more frequently in the future.                                           |        |         |       |                                                                                                                                      |                            |             |                                                 |                                                                                      |                                                                       | 6-8 times a year                            |      |         |            |                                                     |                                                             |        |         |        |                                                   | 4 times a month                                                                                                                      |  |  |  |  |  |  |  |  |        | Once a month                 |  |  |  |  |  |  |  |  |                                |                                                             |  |  |  |  |  |  |  |  |  |
|              |                |        |            |           |                                                                                                                                  |                                         |                                                                               |                                                                                  |                                                                                     |                                                                                   | I usually spend between 20,000-80,000 LKR per purchase, so I would say that my yearly expenditures online are in between 500,000-900,000 LKR |        |         |       |                                                                                                                                      |                            |             |                                                 |                                                                                      |                                                                       | 10,000 LKR                                  |      |         |            |                                                     |                                                             |        |         |        |                                                   | 10,000-20,000 LKR                                                                                                                    |  |  |  |  |  |  |  |  |        | Approximately 200,000 a year |  |  |  |  |  |  |  |  |                                | 20,000 LKR                                                  |  |  |  |  |  |  |  |  |  |
|              |                |        |            |           |                                                                                                                                  |                                         |                                                                               |                                                                                  |                                                                                     |                                                                                   | Approximately 50% of my all purchases are done online                                                                                        |        |         |       |                                                                                                                                      |                            |             |                                                 |                                                                                      |                                                                       | I don't know                                |      |         |            |                                                     |                                                             |        |         |        |                                                   | 20%                                                                                                                                  |  |  |  |  |  |  |  |  |        | 5%                           |  |  |  |  |  |  |  |  |                                | 20%                                                         |  |  |  |  |  |  |  |  |  |
|              |                |        |            |           |                                                                                                                                  |                                         |                                                                               |                                                                                  |                                                                                     |                                                                                   | Clothes, food, makeup and gifts.                                                                                                             |        |         |       |                                                                                                                                      |                            |             |                                                 |                                                                                      |                                                                       | Fitness clothes and shoes or if I am bored. |      |         |            |                                                     |                                                             |        |         |        |                                                   | Shampoo, conditioner, makeup and clothes                                                                                             |  |  |  |  |  |  |  |  |        | Electronics                  |  |  |  |  |  |  |  |  |                                | clothes, car related products or smaller electronic things. |  |  |  |  |  |  |  |  |  |
|              |                |        |            |           |                                                                                                                                  |                                         |                                                                               |                                                                                  |                                                                                     | I have started to purchase more and more online.                                  |                                                                                                                                              |        |         |       |                                                                                                                                      |                            |             |                                                 |                                                                                      | More                                                                  |                                             |      |         |            |                                                     |                                                             |        |         |        | I purchase less online now because I am a student |                                                                                                                                      |  |  |  |  |  |  |  |  | Stable |                              |  |  |  |  |  |  |  |  | It has been relatively stable. |                                                             |  |  |  |  |  |  |  |  |  |



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| Cognitive | <i>Do you feel that it is easier or harder to purchase goods online compared to a physical store?</i>                                                                                                                                                                                                                                                                                      | I feel that it is easier to purchase goods online rather than going to a physical store. You have access to all types of goods, and the purchasing process is.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | More convenient to shop online                                                                                           | It depends, sometimes when you are purchasing a dress it is difficult to know if it will fit. However, I sometimes try shoes in the physical store and buy them. | It is more difficult, especially when it comes to clothes as you cannot try them on, and have to return them if they do not fit. However, it is more convenient to be at home. | Easier, you can find product information are easily.             | It depends on the product. Purchasing clothes online can be a bit difficult at you can't try them on. While other things tend to be easier to purchase online, as it is more convenient. |
|           | <i>If you choose to purchase something online, why do you choose this option, rather than purchasing goods in a physical store?</i>                                                                                                                                                                                                                                                        | It depends on what type of goods I purchase. Some of the reasons for why I choose this option is that it is convenient, you get the products within a few days, and that it is Gee to etum products if I purchased e.g. the wrong siz of clothes. The option of paying with Paypal is also a big advantage. By using this service to pay for the products ordered. I dont need to pay for the products before getting them, and if something is to be returned, the amount will be subtracted from the bill. Other factors that also make me shop online ave that you always know whether the products are in stock or not, and you don't have to go looking around for a certain product. | More convenient                                                                                                          | N/A                                                                                                                                                              | It is more convenient. you can avoid crowded stores, and there are often discounted prices online.                                                                             | Easier you can find product information are easily.              | To avoid crowded stores and avoid using a lot of time in the store. It is easy and less time-consuming to purchase goods online.                                                         |
|           | <i>For you as a customer, what is more important; the price of the product, or the quality of the product?</i>                                                                                                                                                                                                                                                                             | Both quality and the price matters, but I tend to emphasize the quality before the price. It is however important that the prices are competitive.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | When I purchase online I don't know how the quality of the product is, so price will be more considering when purchasing |                                                                                                                                                                  | A combination                                                                                                                                                                  | Both                                                             | It depends on the product. but I would say that it is a combination. If there is a product I want, I tend to use some time to look for the best price online.                            |
|           | <i>We have noticed that several Sri Lankan stores (both physical and online) have begun to compare their own prices with "Price search engines" (Eg: Kapruka price checker) on (online websites displaying the current prices of a given product, enabling consumers to find the best offering). Is this something you also tend to do, comparing prices through price search engines?</i> | No it is not something I use.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | I don't use it active, but I have tried I think it is good, but I forget about ss existence.                             | I often use "ikamm.lk". I experience that it does not always work in the way it should, but in general I am happy.                                               | Yes, I use such search engines often, as it is easy to compare the prices from several stores.                                                                                 | Yes                                                              | Yes                                                                                                                                                                                      |
|           | <i>If yes, is it likely that you will find the best offering by using these price search engines?</i>                                                                                                                                                                                                                                                                                      | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | N/A                                                                                                                      | Not always but in general                                                                                                                                        | Yes                                                                                                                                                                            | Mostly but not always. Sometimes not all the products are listed | Yes, I usually find the product at lower price.                                                                                                                                          |
|           | <i>Do you feel that it is safe to purchase goods online?</i>                                                                                                                                                                                                                                                                                                                               | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Yes, if I am familiar with the online store                                                                              | Yes                                                                                                                                                              | It depends. But in general, I think it is relatively safe.                                                                                                                     | Yes                                                              | I am a bit skeptical sometimes, but I consider it relatively safe. I am a bit skeptical sometimes, but I consider it relatively safe.                                                    |

|           |                                                                                                                                 |                                                                                                                                                                                                                                          |                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| Affective | What factors makes it safe or unsafe to purchase goods online?                                                                  | I consider it safe to shop at well-known and relatively large online stores. I feel that the risk I relatively low of the online store provides MasterCard . I don't have to pay in advance something that is lowering my personal risk. | Makes it safe: The site is familiar, the online store is connected to facebook and/or Instagram, contact us information, and their office address. | Factors making it safer to shop online could be the safe e-commerce trademark. If I am unfamiliar with the online store, I tend to google the store, and read about others experiences with that store. I also pay attention to what kind of payment options and delivery option that are offered. If the online store has well known payment and delivery options, I consider it to be relatively safe. | Makes it safe: payment solutions, order confirmation. Makes it not safe: Scam                       | I tend to look at the online store whether the website seem "plain", or if it looks like an expensive and tailored design. If it is to plain, I tend to get skeptical, and if it looks legit and costly I tend to trust the online store. I also pay attention to the number of products sold on Ebay, as well as customer reviews to make sure that it is safe. But one should have in mind that reviews form previous customers might be faked. |
|           | Do you have any characteristics or features you are looking for when deciding upon whether the online store is reliable or not? | As long as it is a well-known store and offers safe payment options, I consider the online store to be reliable.                                                                                                                         | Unfamiliarity                                                                                                                                      | I am often googling the online store, and if it has a lot of bad reviews, I avoid it. Otherwise it is pretty much the same as the previous question.                                                                                                                                                                                                                                                     | The url code, "https" makes it safe. If the site contains many spelling mistakes, can be suspicion. | The total experience and my gut feeling when I look at, and spend time at the online store. If the experience is good, and everything seem ok, it usually is.                                                                                                                                                                                                                                                                                     |
|           | Does these features/ characteristics affect your online purchasing behavior?                                                    | I am conscious about where I choose to shop online, but as long as it is a well-known, Sri Lankan online store with reliable payment options, I feel relatively safe.                                                                    | Yes. I do not purchase with online stores I am not familiar with.                                                                                  | Yes. I often switch to another online store if I feel that it is unsafe to purchase anything from that store. I rarely purchase anything from private labels online, in order to avoid uncertainty.                                                                                                                                                                                                      | Yes, if I need to pay directly online                                                               | Yes, if the total experience of using the page is bad, I tend to avoid purchasing something from that store. If the experience is good, and everything is seamless, there are more likely that I will purchase something from that online stores.                                                                                                                                                                                                 |
|           | Do you tend to avoid online stores you do not trust, or does not seem legitimate?                                               | Yes I generally don't order products from outside of the country as legitimacy is various in other countries.                                                                                                                            | Yes                                                                                                                                                | Yes                                                                                                                                                                                                                                                                                                                                                                                                      | Yes, totally.                                                                                       | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|           | To what degree does the trustworthiness of an online store affect you as a customer?                                            | If I trust the store, and everything seems ok, I tend to purchase more, and often at that store.                                                                                                                                         | It affects my decisions whether I should buy or not.                                                                                               | It affects me a lot. If I don't trust a given store, I don't purchase from that store.                                                                                                                                                                                                                                                                                                                   | It is crucial                                                                                       | I would say that it is a crucial factor.                                                                                                                                                                                                                                                                                                                                                                                                          |



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| <p>Do you have any examples of firms performing poor (bad) customer handling? Why? What do you think could be the reason for this bad impression?</p>                                                                                                        | <p>Power, they also have click-and-collect, but I does not work optimally. I have experienced that products that I have ordered have already been sold out when I went to the store to pick up my order. even though I got a confirmation that the product where put aside. When I confronted them, they said that they could not do anything for me. Ever since, I have not purchased anything at the store.</p>                                                                                                                                                                                              | <p>Not that I can think of.</p>                                                                                                                                                                                                                                     | <p>"PhonePoint" as answered earlier</p>                                                                                                                                                                                                                                     | <p>No. No one I can think of right now</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <p>After my experience, "daraz". Due to, I have to wait a long time before I get response after making contact.</p>                         | <p>I cannot think of any firms, but I believe that online stores tend to get a bad reputation when the online store don't work properly, and if it tends to have may technical error.</p>                                                                                                                      |
| <p>What type of actions/ implementations are the online stores exhibiting to take care of your needs as a customer through the whole buying process? (from start to end)</p> <p>do you feel that most of the online stores practice these actions?</p>       | <p>Many stores have a chat pops up wheret you can ask questions.. This is great, but it can sometimes be annoying when it pops up immediately and covers the page. Another thing is some online stores saves your shopping basket if you didn't complete your purchase, and send a reminder on mail. This is great if you just forgot or got distracted when shopping, you don't have to find all the products the next time you visit the store. When choosing that store, giving them a discount for their next purchase.</p> <p>No, I feel that only the big and well-known stores are practicing this.</p> | <p>That the campaigns and offers are well displayed, effective buying process, offers several payment solutions, low freight-cost, and that the website is organized and easy to use.</p> <p>The online stores I am familiar with are practicing these factors.</p> | <p>The ease of contacting the online store, safe payment, order confirmation, and notification of the delivery.</p> <p>Yes</p>                                                                                                                                              | <p>I'm not sure, but I feel the option of being able to make contact with the online store through a chat is great. It has a negative impact on me if I have to call the store and have to be in que for a while before I can ask my questions. I also feel that a lot of stores send out discounts to their customers, which is a good incentive for us to consume more. Additional, a lot of stores offers 30 days open return, making it more convenient to purchase something, as you don't need to make up your mind about a product right away.</p> <p>No</p> | <p>Short response, understandable and concrete answers, and tracking possibilities.</p> <p>Yes, I think so mostly.</p>                      | <p>Status updates on your order. That you receive a confirmation of your order, a mail once it is packed and when the products are sent. I tend to be skeptical if I don't receive any information after I have made a purchase. But I usually get the product anyway.</p> <p>Yes, most of them does this.</p> |
| <p>Which of these are the most important/relevant considering you as a customer?</p> <p>If you are to contact the online store, which platform do you prefer to use? (email, chat, Facebook, phone, other)</p> <p>Why do you choose this/these platform?</p> | <p>I really like it when I get something extra, like a gift or a discount.</p> <p>I use mail or chat if I need to get in touch with the online store.</p> <p>The main reason is because I don't want to spend alot of time on the phone, especially if it is a queue.</p>                                                                                                                                                                                                                                                                                                                                      | <p>Good campaigns/offers</p> <p>Email. I prefer chat. if they have that, but experience when pressing on the chat box I automatically is forward to email.</p> <p>Easy to use, and I get a notification when I get the reply.</p>                                   | <p>Customer service; that I know there are reachable when I decide to make contact. Rapid respondent from the customer service (1-2 days).</p> <p>I think it is easier to call the online store, thus I get an answer right away.</p> <p>Convenient, and rapid respond.</p> | <p>The chat option, as well as receiving updates regarding the purchasing process.</p> <p>Mail and chat.</p> <p>Because I do not feel too comfortable calling a store.</p>                                                                                                                                                                                                                                                                                                                                                                                          | <p>Short response</p> <p>I think chat is the most effective, because you get directly respond.</p> <p>Because you get directly respond.</p> | <p>Feedback and information throughout the process.</p> <p>I prefer to use the chat or make a phone call.</p> <p>By wing these platforms, I am certain to get the answer I need within a short time.</p>                                                                                                       |



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| Social: Customer            | How often do you make contact with the online stores?                          | Not that often                                                                                                                                                                                                                                                                                                        | Only if there are anything wrong with the product.                                                                                                                         | Not sure                                                                                                                                                                                                                                                                                                                  | Not sure                                                                                                                                                                           | Not often                                                                                                                                                                    | Rarely                                                                                                                                                                                                                                         |
|                             | What is your usual questions?                                                  | If I get in touch it is usually regarding returns.                                                                                                                                                                                                                                                                    | N/A                                                                                                                                                                        | Information about product.                                                                                                                                                                                                                                                                                                | Something regarding the purchasing process, or the product                                                                                                                         | Specifications about the product                                                                                                                                             | When there are any issues or problems that I can't solve on my own. But it is rarely.                                                                                                                                                          |
|                             | Do you ask many product related questions?                                     | No, not really                                                                                                                                                                                                                                                                                                        | No                                                                                                                                                                         | Yes                                                                                                                                                                                                                                                                                                                       | No, not that many. I usually read the product reviews, or go to a physical store, trying the product or checking it out.                                                           | Yes                                                                                                                                                                          | It depends if I have any unanswered question that I can't find the answer to on my own, however it is rarely that I can't find the answers by myself.                                                                                          |
|                             | Do you ask many transportation and delivery related questions?                 | No, I usually get all the information I need from the store regarding delivery.                                                                                                                                                                                                                                       | No                                                                                                                                                                         | Rarely. I expect it to be well informed on the website.                                                                                                                                                                                                                                                                   | No                                                                                                                                                                                 | Not usually                                                                                                                                                                  | No                                                                                                                                                                                                                                             |
| Insight attributes: Website | How do you experience the complaint and return managed by online stores?       | They generally handles these matters well, especially the largest and well-known online stores, it is seamless, and I only have to pay for the products that I choose to keep. I often also receive an email when I have paid for my purchase, letting me know that the money has come through, this is really great. | I have good experience. I recently returned a product from "mydeal", due to the product did not fit, and I got the money back.                                             | In general, I experience it to be not a problem. However, an incident with "PhonePoint", I managed to return the product with the wrong delivery company. Hence, "PhonePoint" got the product in return 6 weeks after. I emailed with "PhonePoint" back and forth during the process, however, they made me feel ignored. | It usually works well, however, some stores tend to surprise me more than others. Some are really great, while others are using a lot of time handling my complaint/ return.       | In general very good                                                                                                                                                         | I have only made one complaint, and the firm handling it did not take it seriously and did nothing to compensate at all. I was not happy with that.                                                                                            |
|                             | What are you satisfied with/not satisfied with?                                | The same as I mentioned above, that it is seamless and easy to return or complain, and that the online store responds fast to my issues.                                                                                                                                                                              | I am satisfied with the user-friendly forms to fill out when returning a product. I am not happy if I have to pay for the return myself, even though it is understandable. | The staff is polite, and the process does not have any complications.                                                                                                                                                                                                                                                     | It is usually easy to return/ complain, and everything such as labels, freight and so is available and ready, making it easy to return items.                                      | Satisfied with the short complaint process, Not satisfied when the online stores uses long time approving/ handling the complaint.                                           | I have never returned anything from an online store.                                                                                                                                                                                           |
|                             | To what extent do you experience that the websites are user/customer friendly? | The user-friendliness is getting better and better. However, some pages tend to overdo it, and it can be too much. I think that it is great that relevant products to the one I chose are suggested, making it easier to e.g. shop an outfit.                                                                         | I experience that every online store I visit are user-customer friendly.                                                                                                   | I experience that standards are in general good.                                                                                                                                                                                                                                                                          | Often                                                                                                                                                                              | Very often                                                                                                                                                                   | I feel that most of the online stores are customer friendly.                                                                                                                                                                                   |
|                             | To what extent does it affect your purchase?                                   | This has a positive impact on my shopping behavior online. I tend to purchase more online rather than in a physical store.                                                                                                                                                                                            | It affects to the extent that products become more visible, and the website is more organized.                                                                             | Significantly, information about contact and delivery is important. If the design of the website is welcoming and it is easy to navigate, it encourages my purchase.                                                                                                                                                      | Yes, it is important. If it is difficult to find a product I might give up searching for it at that store. If it is easy, I will most likely purchase more from that online store. | Significantly, due to the professional image the company exhibit. If the website is to complex, and I need to use a long time to get through, I usually get bored and abort. | It affects me positively if the website is customer friendly, as it is easier to make a purchase, and saves me a lot of time. However, if I really want the product I purchases it anyway, regardless of how customer friendly the webpage is. |

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| Ex                  | <p>Considering repurchases and/or how much you end up buying, how does it affect?</p>                                                      | <p>Positive, I tend to purchase more and more online, as it is getting more and easier. If the online store is easy to navigate, everything is seamless, and it is easy to return, I tend to purchase more and often from that online store. on behalf of other stores.</p>                                                                                                                                            | <p>I don't repurchase a product I am not satisfied with, even though the website is user-friendly</p>                                                                                                                                                                                                       | <p>Yes, it affects.</p>                                                                                                                                                                                        | <p>It affects me positively if the online store is customer friendly, as I will most likely purchase more frequent as well as larger quantum from that store.</p>                                                                                                                                                                                                              | <p>Yes, it has to some extent</p>                                                                                                | <p>The easier, better and well-tailored the page are, it is more likely that I am going to make a purchase, purchase more and return to make another purchase on that online store at a later point.</p>                                                                                                                                              |
|                     | <p>How will you define a good customer experience? (satisfaction)</p>                                                                      | <p>That everything is seamless, the online store has the products in stock and manages to not be out of stock right away and that it is easy to return. In addition, it is important that you feel taken care of by the online store and that they appreciate you as a customer. This can be done by adding a gift to your order, a discount on your next purchase, or just simply thanking you for choosing them.</p> | <p>When the buying process is effective, and they got a broad selection of products.</p>                                                                                                                                                                                                                    | <p>I find the product I am searching for, notification on mail when my size is in stock, and several payment solutions.</p>                                                                                    | <p>If I am satisfied with the purchase and the purchasing process in general, and it is easy to return and complain, I am having a good customer experience.</p>                                                                                                                                                                                                               | <p>Short response, organized product information, friendly customer service and competitive prices.</p>                          | <p>Fast, safe and at good prices</p>                                                                                                                                                                                                                                                                                                                  |
| Customer experience | <p>What is your impression of which type of actions online stores implement to excel with customer experience?</p>                         | <p>Many stores have large campaigns, and often send out promotional offers on mail so that I don't miss out on a good offer. Free freight and delivery is also something that improves my impression, as well as giveaways and discounts in the package.</p>                                                                                                                                                           | <p>They make the products more convenient and easier to access. Handwritten letters from the stores.</p>                                                                                                                                                                                                    | <p>Customer reviews exposed on the online store, receiving sample products, and handwritten letters.</p>                                                                                                       | <p>I'm not sure.</p>                                                                                                                                                                                                                                                                                                                                                           | <p>Improve their response time, and that they have a professional image and presence. Additional, good complaint management.</p> | <p>Having a chat is easier for any questions. Many stores also have a guarantee that if you are not satisfied you can return your product, even though it has been used. Free freight and delivery are also often displayed some place on the online store. I feel that many stores try to highlight that it is safe to purchase from that store.</p> |
|                     | <p>Do you think it is a strategic challenge for online stores not to have physical contact with the customers? (face to face) Explain.</p> | <p>No, I think that it could be an advantage for the store, rather than a challenge. The employee can concentrate on other things, rather than using a lot of time talking to the customers. And if a customer has any questions, the stores generally responds fast to any question or problem.</p>                                                                                                                   | <p>I think that it is probably a disadvantage, due to the fact that when you are in a physical store one can ask the staff directly about products you are looking for. Online it is more difficult and effort to get in contact with the store, to ask if they distribute products you are looking for</p> | <p>I think it is a disadvantage, when I as a customer often wants to have directly contact with the staff. Hence, it feels more effort to contact the online store, than getting help in a physical store.</p> | <p>I don't think that it is a challenge for the online store, as the employees of a physical store are not necessary that experienced and skilled when it comes to their products and selling them. If I need help with a certain product, I often go to a physical store, and get the help I need, even though not all of the sales people are that talented and skilled.</p> | <p>Yes, due to the fact that customers prefer to feel and touch the products.</p>                                                | <p>Yes, it could be as the physically can't affect the customers choices. On the other hand, do the online store have lower costs in terms of salaries, so it could also be an advantage for the firm.</p>                                                                                                                                            |
|                     | <p>Are there any online stores that you chose to purchase more from than others?</p>                                                       | <p>Yes, I tend to purchase more frequent at stores that offers a good customer experience, such as Daraz.com, Wow.lk and mydeal.lk</p>                                                                                                                                                                                                                                                                                 | <p>I have some online stores I frequently visit to make purchase like idealz.lk</p>                                                                                                                                                                                                                         | <p>wasi.lk, lankagedget.com</p>                                                                                                                                                                                | <p>Yes, I tend to return to get inspired ikman.lk, lankaitem.lk</p>                                                                                                                                                                                                                                                                                                            | <p>No</p>                                                                                                                        | <p>No, I don't think so. However, if I am satisfied with the store and the purchase I have made, the threshold for making another purchase becomes smaller.</p>                                                                                                                                                                                       |

|         |                                                                                                               |                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                    |                                                                                 |                                                                                                                                                                                                                        |                                                                                                                                                                                                                |                                                                                                                                                                                                 |
|---------|---------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Loyalty | Why do you come back to these online stores?                                                                  | I know what to expect, and when to expect it. They have an efficient and fast delivery, and are often giving me something extra such as a discount or a giveaway. They also offer a seamless return.                                                                                                                         | I am familiar with the product and they have high quality, competitive prices and good deals/offers.                                               | Broad selection of products                                                     | Because I am satisfied with previous purchases, and because I trust the stores, and they have a Broad selection of products.                                                                                           | N/A                                                                                                                                                                                                            | N/A                                                                                                                                                                                             |
|         | What are the criteria which determines and/or persuade you to make a repurchase with a specific online store? | Low or no delivery costs, the option to pay by online wallet, free return, a broad selection of goods, customer-friendly online store, as well as suggestive products based on my previous purchases.                                                                                                                        | Broad selection of products, when I am satisfied with the products, and the online store deliver as promised                                       | Providing products that is unavailable in the physical store, and good offer    | As long as I am satisfied with the online store and the purchase, I will most likely purchase something again from that online store.                                                                                  | Superior customer service, professional impression, and a familiar store                                                                                                                                       | If I am satisfied with my purchase, it is easy to make the purchase and if the products arrives relatively fast, I would most likely purchase something from that store at a late point of time |
|         | Are there any factors that make you not want to make a repurchasing with a specific online store?             | Stores that overdo their marketing and campaigns, so that I get tired of the store. Also, stores that do not offer a free return, or that it is hard and difficult to return products. I also prefer to pay after I have received the products, so stores that does not offer this are most likely to lose me as a customer. | If the online store charges a high level of Long delivery process, freight-cost, e.g. 4000 LKR, when the products itself might cost only 3000 LKR. | Long delivery process and unprofessional companies.                             | if I am not satisfied with my purchase, or if the online store disappears form internet, I would not make another purchase at that store.                                                                              | Bad customer service, do not get response, long delivery time, wrong/misleading information about the products.                                                                                                | If things does not work properly, and it is difficult to navigate on the webpage.                                                                                                               |
| General | Do you feel less loyal when you make purchases online, than for physical stores?                              | I am more loyal to the online stores that I am satisfied with, so I would say that I am more loyal online                                                                                                                                                                                                                    | I am less loyal when I purchase online, due to price comparison and exposure of good offers. Additionally, I purchase based on convenience.        | I feel less loyal when shopping online. However, I still use physical stores.   | I feel that I am more loyal online. Once I find reliable and liable online stores, I trust them, making the threshold lower to make another purchase. And, I can often get discounts when purchasing something online. | Yes                                                                                                                                                                                                            | When I make a purchase online, I almost always search for the lowest prices. which makes me less loyal online. While I am more loyal to physical stores.                                        |
|         | Is there anything you want to add considering customer experience?                                            | No, I feel that we have covered most of the aspects regarding online shopping.                                                                                                                                                                                                                                               | No                                                                                                                                                 | Important to feel acknowledged, and that you receive the service/help you need. | No                                                                                                                                                                                                                     | I experienced a bad customer handling with "<Some Store Name>", where I got misleading information about a TV, and I felt almost tricked to buy this TV. (I feel it not good to mention the name of the store) | No, nothing that I can think about.                                                                                                                                                             |
|         |                                                                                                               |                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                    |                                                                                 |                                                                                                                                                                                                                        |                                                                                                                                                                                                                |                                                                                                                                                                                                 |

## Appendix 3: Scale Development

| Questions                                                                                                     | References            |
|---------------------------------------------------------------------------------------------------------------|-----------------------|
| <i>Ease of use</i>                                                                                            |                       |
| The organization and structure of online content is easy to follow                                            | Yang et al., 2004     |
| It is easy for me to complete a transaction through the company's web site                                    | Yang et al., 2004     |
| <i>Security</i>                                                                                               |                       |
| The online store will not misuse my personal information                                                      | Yang et al., 2004     |
| I feel safe in my online transactions                                                                         | Yang et al., 2004     |
| I feel secure in providing sensitive information (e.g. credit card number) online for transactions            | Yang et al., 2004     |
| I feel that the risk associated with online transactions is low                                               | Yang et al., 2004     |
| <i>Trust</i>                                                                                                  |                       |
| The online store has the skills and expertise to perform transactions in an expected manner                   | Bhattacharjee, 2002   |
| The online store has access to the information needed to handle transactions appropriately                    | Bhattacharjee, 2002   |
| The online store is fair in its conduct of customer transactions                                              | Bhattacharjee, 2002   |
| The online store is open and receptive to customer needs                                                      | Bhattacharjee, 2002   |
| The online store makes good-faith efforts to address most customer concerns                                   | Bhattacharjee, 2002   |
| Overall, the online store is trustworthy                                                                      | Bhattacharjee, 2002   |
| <i>Privacy</i>                                                                                                |                       |
| The Web site abides by personal data protection laws.                                                         | Park and Kim, 2003    |
| The Web site only collects user's personal data that are necessary for its activity.                          | Park and Kim, 2003    |
| The online store does not provide my personal information to others without your consent.                     | Park and Kim, 2003    |
| I feel a safe when sending my personal information to the online store.                                       | Park and Kim, 2003    |
| The online store shows concern for privacy of its users.                                                      | Park and Kim, 2003    |
| I feel my personal information would not be used by online stores without my knowledge                        | Park and Kim, 2003    |
| I feel I will not lose control over the privacy of my payment information                                     | Park and Kim, 2003    |
| I can fully control over my data on the online store                                                          | Park and Kim, 2003    |
| I believe that the information shared with the online store will not be subject to resell to other companies. | Park and Kim, 2003    |
| The online store allows to visit in an anonymous manner.                                                      | Park and Kim, 2003    |
| The online store allows to manage/customize privacy setting                                                   | Park and Kim, 2003    |
| Overall, the privacy protection in online store is excellent                                                  | Park and Kim, 2003    |
| Overall, online store comes up to my expectations of protecting privacy                                       | Park and Kim, 2003    |
| <i>User interface quality</i>                                                                                 |                       |
| The structure of online content is easy to follow                                                             | Gummerus et al., 2004 |
| The information on the Web site is attractively displayed.                                                    | Gummerus et al., 2004 |
| I like the way the environment of online stores look & its visuals                                            | Gummerus et al., 2004 |
| It is easy to navigate and trace the user interactions.                                                       | Gummerus et al., 2004 |
| It is easy for me to complete a transaction through online store                                              | Gummerus et al., 2004 |
| The Web site presents information that is easy to understand.                                                 | Gummerus et al., 2004 |
| The information on the Web site facilitates buying the products or services that it sells or markets.         | Gummerus et al., 2004 |
| The Web site provides the up-to-date products and services information.                                       | Gummerus et al., 2004 |
| The Web site provides the relevant the products/services information.                                         | Gummerus et al., 2004 |
| The Web site presents information that is well organized.                                                     | Gummerus et al., 2004 |
| <i>Satisfaction</i>                                                                                           |                       |
| Overall, I am very satisfied with the company                                                                 | Yang et al., 2004     |
| Overall, I am very satisfied with internet-based transactions                                                 | Yang et al., 2004     |
| Overall, I am very satisfied with the products/services offered by the company                                | Yang et al., 2004     |
| Overall, I am very satisfied with the customer experience with the company                                    | Yang et al., 2004     |



| <i>Loyalty</i>                                                                         |                       |
|----------------------------------------------------------------------------------------|-----------------------|
| I believe that this online company has better offers than its competitors              | Toufaily et al., 2016 |
| I have repeatedly found that this online company is better than others                 | Toufaily et al., 2016 |
| For me, being a customer of this company is almost like being a part of a large family | Toufaily et al., 2016 |
| I prefer always so prioritize the new offers introduced by this online company         | Toufaily et al., 2016 |
| I prefer to always favor this online company over others                               | Toufaily et al., 2016 |
| I indent to maintain my relationships with this online company's website in the future | Toufaily et al., 2016 |
| I encourage friends to do business with this site                                      | Ding et al., 2011     |
| I say positive things about this site to other people                                  | Ding et al., 2011     |
| I will do business with this site in the next few years                                | Ding et al., 2011     |

## Appendix 4: Questionnaire

### Introduction:

Dear participant,

I am T. Rikas Ahamed, a final year student from University of Colombo School of Computing. I am conducting this survey on "The Impact of online Customer Experience toward Customer loyalty Through Customer satisfaction and trust as mediating variables in Sri Lankan E-commerce platforms" as part of my final year research project in partial fulfillment of the requirements for the Degree of Bachelor of Science Honours in Information Systems, under the guidance of Dr TA. Weerasinghe and Dr. KT. Karunanayaka. This survey is conducted solely for academic purposes and your personally identifiable details are not collected such as name, email etc. Your responses will be kept private.

Thank you so much for taking the time to participate in this survey.

\*It will take about less than 5 minutes to complete. The survey is completely voluntary and you can cancel at any time.

### Screening Questions

In the last six months, have you purchased a product or more from online stores? \*

☐ Yes

☐ No

What is your gender? \*

☐ Female

☐ Male

☐ Other

How old are you? \*

☐ Under 18

☐ 18-24

☐ 25-34

☐ 35-44

☐ 45-54

☐ 55-64

☐ 65 or older

Next

Page 1 of 11

## General idea about the participant

Which of the following options best describes your place of residence? \*

- ☐ City
- ☐ Town
- ☐ Village

Educational Qualification? \*

- ☐ Below Ordinary Level
- ☐ Ordinary Level
- ☐ Advanced Level
- ☐ Undergraduate
- ☐ Graduated
- ☐ Post Graduate and Above

Occupation/Job? \*

- ☐ Self-employed
- ☐ Student
- ☐ Government Service
- ☐ Private Service
- ☐ Business
- ☐ Housewife

About how much is your total annual income?

- ☐ Under 10,000
- ☐ 10,000-29,999
- ☐ 30,000 to 49,999
- ☐ 50,000 to 69,999
- ☐ 70,000 to 89,999
- ☐ 90,000 to 109,999
- ☐ 110,000 to 129,999
- ☐ 130,000 or more

[Back](#)[Next](#) Page 2 of 11

## General questions regarding online consumption:

How often do you actually buy something from online store in a month? \*

- ☐ Less than once a month
- ☐ Once a month
- ☐ 2 times a month
- ☐ 3 times a month
- ☐ 4 times a month
- ☐ 5 times or more a month

How much do you think you spend on average at online stores per month? \*

- ☐ Less than Rs. 500
- ☐ Rs. 500-1000
- ☐ Rs. 1001-2000
- ☐ Rs. 2001-3000
- ☐ Rs. 3001-4000
- ☐ Rs. 4001-5000
- ☐ Over Rs. 5000

Have you started shopping more or less online over the last few years? \*

- ☐ More
- ☐ Neither more nor less
- ☐ Less

### General questions:

Do you feel that the following factors are crucial to your online purchase? \*

|                                                  | Not important         | A little important    | Neither important nor important | A bit important       | Very important        |
|--------------------------------------------------|-----------------------|-----------------------|---------------------------------|-----------------------|-----------------------|
| Privacy is taken care of                         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>           | <input type="radio"/> | <input type="radio"/> |
| Security / safety                                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>           | <input type="radio"/> | <input type="radio"/> |
| Good price                                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>           | <input type="radio"/> | <input type="radio"/> |
| Good quality                                     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>           | <input type="radio"/> | <input type="radio"/> |
| Easy to make a purchase                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>           | <input type="radio"/> | <input type="radio"/> |
| Famous online store                              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>           | <input type="radio"/> | <input type="radio"/> |
| The online store is part of a chain              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>           | <input type="radio"/> | <input type="radio"/> |
| Wide and varied product range                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>           | <input type="radio"/> | <input type="radio"/> |
| Brands that are not available in physical stores | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>           | <input type="radio"/> | <input type="radio"/> |
| Easy to return advertising                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>           | <input type="radio"/> | <input type="radio"/> |
| Shipping Cost                                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>           | <input type="radio"/> | <input type="radio"/> |
| Good customer care customer experience           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>           | <input type="radio"/> | <input type="radio"/> |

[Back](#)
[Next](#)

Page 3 of 11

#### Online stores that you are using in Sri Lanka

Consider your recent purchases where you shop one or more items online (food, clothing, makeup, electronics, etc.). and answer the rest of the sections.

What is the Sri Lankan online stores you engage with recently? \*

Your answer

[Back](#)
[Next](#)

Page 4 of 11

**Privacy:**

Privacy

This question is about general online stores in Sri Lanka

Please choose the degree to which you believe the consequences are true \*

|                                                                                                              | To a very small extent | To a small extent     | To a varying extent   | To a large extent     | To a very large extent | No choice             |
|--------------------------------------------------------------------------------------------------------------|------------------------|-----------------------|-----------------------|-----------------------|------------------------|-----------------------|
| The Web site abides by personal data protection laws.                                                        | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| The Web site only collects user's personal data that are necessary for its activity.                         | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| The online store does not provide my personal information to others without your consent.                    | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| I feel a safe when sending my personal information to the online store.                                      | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| The online store shows concern for privacy of its users.                                                     | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| I feel my personal information would not be used by online stores without my knowledge                       | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| I feel I will not lose control over the privacy of my payment information                                    | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| I can fully control over my data on the online store                                                         | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| I believe that the information shared with the online store will not be subject to resell to other companies | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| The online store allows to visit in an anonymous manner.                                                     | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| The online store allows to manage/customize privacy setting                                                  | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| Overall, the privacy protection in online store is excellent                                                 | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| Overall, online store comes up to my expectations of protecting privacy                                      | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |

Back
Next

Page 5 of 11

***Ease of Use:*****Ease of use:**

This question is about general online stores in Sri Lanka

Please choose the degree to which you believe the consequences are true \*

|                                                                                                       | To a very small extent | To a small extent     | To a varying extent   | To a large extent     | To a very large extent | No Choice             |
|-------------------------------------------------------------------------------------------------------|------------------------|-----------------------|-----------------------|-----------------------|------------------------|-----------------------|
| The structure of online content is easy to follow                                                     | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| The information on the Web site is attractively displayed.                                            | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| The Web site is visually appealing.                                                                   | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| It is easy to navigate and trace the user interactions.                                               | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| The Web site presents information that is easy to understand.                                         | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| The information on the Web site facilitates buying the products or services that it sells or markets. | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| The Web site provides the up-to-date products and services information.                               | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| The Web site provides the relevant the products/services information.                                 | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| The Web site presents information that is well organized.                                             | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| It is easy for me to complete a transaction through online store                                      | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |

[Back](#)
[Next](#)

Page 6 of 11

**Security:****Security**

This question is about general online stores in Sri Lanka.

Please choose the degree to which you believe the consequences are true \*

|                                                                                                    | To a very small extent | To a small extent                | To a varying extent   | To a large extent     | To a very large extent | No choice             |
|----------------------------------------------------------------------------------------------------|------------------------|----------------------------------|-----------------------|-----------------------|------------------------|-----------------------|
| Online stores will not misuse my personal information                                              | <input type="radio"/>  | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| I feel safe in my online transactions                                                              | <input type="radio"/>  | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| I feel secure in providing sensitive information (e.g. credit card number) online for transactions | <input type="radio"/>  | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| I feel that the risk associated with online transactions is low                                    | <input type="radio"/>  | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |

[Back](#)
[Next](#)
 Page 7 of 11



### User Interface Quality:

#### User Interface Quality

This question is about general online stores in Sri Lanka.

Please choose the degree to which you believe the consequences are true \*

|                                                                                                       | To a very small extent | To a small extent     | To a varying extent   | To a large extent     | To a very large extent | No choice             |
|-------------------------------------------------------------------------------------------------------|------------------------|-----------------------|-----------------------|-----------------------|------------------------|-----------------------|
| The structure of online content is easy to follow                                                     | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| The information on the Web site is attractively displayed.                                            | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| I like the way the environment of online stores look & its visuals                                    | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| It is easy to navigate and trace the user interactions.                                               | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| It is easy for me to complete a transaction through online store                                      | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| The Web site presents information that is easy to understand.                                         | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| The information on the Web site facilitates buying the products or services that it sells or markets. | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| The Web site provides the up-to-date products and services information.                               | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| The Web site provides the relevant the products/services information.                                 | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| The Web site presents information that is well organized.                                             | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |

[Back](#)
[Next](#)

Page 8 of 11

**Trust:****Trust**

This question is about general online stores in Sri Lanka

Please choose the degree to which you believe the consequences are true \*

|                                                                                           | To a very small extent | To a small extent     | To a varying extent   | To a large extent     | To a very large extent | No choice             |
|-------------------------------------------------------------------------------------------|------------------------|-----------------------|-----------------------|-----------------------|------------------------|-----------------------|
| Online stores have the skills and expertise to perform transactions in an expected manner | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| Online stores have access to the information needed to handle transactions appropriately  | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| Online stores are fair in their conduct of customer transactions                          | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| Online stores are open and receptive to customer needs                                    | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| Online stores make good-faith efforts to address most customer concerns                   | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |
| Overall, online stores are trustworthy                                                    | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/> |

[Back](#)
[Next](#)
 Page 9 of 11

**Satisfaction:****Satisfaction**

This question is about general online stores in Sri Lanka.

Please reply if you agree or disagree with the following statements \*

|                                                                                | Agree                 | Disagree              | Neither agree or disagree |
|--------------------------------------------------------------------------------|-----------------------|-----------------------|---------------------------|
| Overall, I am very satisfied with the company                                  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     |
| Overall, I am very satisfied with internet-based transactions                  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     |
| Overall, I am very satisfied with the products/services offered by the company | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     |
| Overall, I am very satisfied with the customer experience with the company     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     |

[Back](#)[Next](#) Page 10 of 11

***Loyalty:***

| Loyalty                                                                                |                       |                       |                           |
|----------------------------------------------------------------------------------------|-----------------------|-----------------------|---------------------------|
| Please reply if you agree or disagree with the following statements *                  |                       |                       |                           |
|                                                                                        | Agree                 | Disagree              | Neither agree or disagree |
| I believe that this online company has better offers than its competitors              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     |
| I have repeatedly found that this online company is better than others                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     |
| For me, being a customer of this company is almost like being a part of a large family | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     |
| I prefer always to prioritize the new offers introduced by this online company         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     |
| I prefer to always favor this online company over others                               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     |
| I intend to maintain my relationships with this online company's website in the future | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     |
| I encourage friends to do business with this site                                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     |
| I say positive things about this site to other people                                  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     |
| I will do business with this site in the next few years                                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     |

[Back](#)
[Submit](#)

 Page 11 of 11

## Appendix 5: Outputs – Methodology

### 5.1 Sample characteristics

Table 1: Sample frequencies

| Frequencies |            |         |         |           |         |           |
|-------------|------------|---------|---------|-----------|---------|-----------|
|             |            | Age     | Gender  | Residence | Income  | Education |
| N           | Valid      | 153     | 153     | 153       | 153     | 153       |
|             | Missing    | 0       | 0       | 0         | 0       | 0         |
| Mean        |            | 3.68    | 1.64    | 1.95      | 5.14    | 2.8954    |
| Median      |            | 3       | 2       | 2         | 5       | 3         |
| Skewness    |            | .214    | -.592   | .103      | .052    | -.110     |
|             | Std. error | .196    | .196    | .196      | .196    | .196      |
|             | Z value    | 1.092   | -3.0204 | 0.5255    | 2.6531  | -0.5612   |
| Kurtosis    |            | -1.341  | -1.672  | -1.708    | -1.123  | -.652     |
|             | Std. error | .390    | .390    | .390      | .390    | .390      |
|             | Z value    | -11.131 | -15.437 | -12.072   | -10.572 | -9.3641   |
| Minimum     |            | 2       | 1       | 1         | 1       | 1         |
| Maximum     |            | 6       | 2       | 3         | 9       | 5         |

### 5.2 “Catch” question

Table 1: Statistics: “Catch” questions.

| Statistics                                                                                    |         |      |
|-----------------------------------------------------------------------------------------------|---------|------|
| <i>I am reading carefully and will therefore answer “to a small degree” on this statement</i> |         |      |
| N                                                                                             | Valid   | 144  |
|                                                                                               | Missing | 9    |
| Mean                                                                                          |         | 2.08 |
| Median                                                                                        |         | 2.00 |
| Std. Deviation                                                                                |         | .680 |
| Variance                                                                                      |         | .463 |
| Minimum                                                                                       |         | 1    |
| Maximum                                                                                       |         | 5    |

Table 2: Frequency: “Catch” questions.

| Frequency                                                                                     |                          |           |         |               |                    |
|-----------------------------------------------------------------------------------------------|--------------------------|-----------|---------|---------------|--------------------|
| <i>I am reading carefully and will therefore answer “to a small degree” on this statement</i> |                          |           |         |               |                    |
|                                                                                               |                          | Frequency | Percent | Valid Percent | Cumulative percent |
| Valid                                                                                         | To a very small extent   | 17        | 11.1    | 11.8          | 11.8               |
|                                                                                               | To a small extent        | 108       | 70.6    | 75.0          | 86.8               |
|                                                                                               | To a varying extent      | 12        | 7.8     | 8.3           | 95.1               |
|                                                                                               | To a large extent        | 5         | 3.3     | 3.5           | 98.6               |
|                                                                                               | To a very large extent   | 2         | 1.3     | 1.4           | 100.0              |
|                                                                                               | Total                    | 144       | 94.1    | 100.0         |                    |
| Missing                                                                                       | I do not have an opinion | 9         | 5.9     |               |                    |
| Total                                                                                         |                          | 153       | 100.0   |               |                    |

### 5.3 Reliability – Internal Consistency Output

Table 1: Reliability: Ease of use

| Reliability statistics |                                              |            |
|------------------------|----------------------------------------------|------------|
| <i>Ease of Use</i>     |                                              |            |
| Cronbach's Alpha       | Cronbach's Alpha Based on Standardized Items | N of Items |
| .600                   | .619                                         | 2          |

Table 2: Reliability: Security

| Reliability statistics |                                              |            |
|------------------------|----------------------------------------------|------------|
| <i>Security</i>        |                                              |            |
| Cronbach's Alpha       | Cronbach's Alpha Based on Standardized Items | N of Items |
| .678                   | .715                                         | 4          |

Table 3: Reliability: Trust

| Reliability statistics |                                              |            |
|------------------------|----------------------------------------------|------------|
| <i>Trust</i>           |                                              |            |
| Cronbach's Alpha       | Cronbach's Alpha Based on Standardized Items | N of Items |
| .866                   | .869                                         | 6          |

Table 4: Reliability: Satisfaction

| Reliability statistics |                                              |            |
|------------------------|----------------------------------------------|------------|
| <i>Satisfaction</i>    |                                              |            |
| Cronbach's Alpha       | Cronbach's Alpha Based on Standardized Items | N of Items |
| .658                   | .679                                         | 4          |

Table 5: Reliability: Privacy

| Reliability statistics |                                              |            |
|------------------------|----------------------------------------------|------------|
| <i>Privacy</i>         |                                              |            |
| Cronbach's Alpha       | Cronbach's Alpha Based on Standardized Items | N of Items |
| .905                   | .901                                         | 13         |

Table 6: Item – total statistics: Privacy, “The Web site abides by personal data protection laws.”

| <b>Item – Total Statistics</b>                                                                               |                                     |                                      |                                          |                                        |
|--------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------------------|------------------------------------------|----------------------------------------|
| <i>Privacy</i>                                                                                               |                                     |                                      |                                          |                                        |
|                                                                                                              | Scale<br>Mean if<br>Item<br>Deleted | Scale<br>Variance if<br>Item Deleted | Corrected Item<br>– Total<br>Correlation | Cronbach’s<br>Alpha if Item<br>Deleted |
| The Web site abides by personal data protection laws.                                                        | 51.51                               | 36.977                               | .292                                     | .910                                   |
| The Web site only collects user's personal data that are necessary for its activity.                         | 51.56                               | 32.301                               | .787                                     | .889                                   |
| The online store does not provide my personal information to others without your consent.                    | 51.56                               | 32.276                               | .753                                     | .891                                   |
| I feel a safe when sending my personal information to the online store.                                      | 51.58                               | 32.990                               | .694                                     | .894                                   |
| The online store shows concern for privacy of its users.                                                     | 51.48                               | 34.176                               | .728                                     | .893                                   |
| I feel my personal information would not be used by online stores without my knowledge                       | 51.66                               | 34.001                               | .651                                     | .896                                   |
| I feel I will not lose control over the privacy of my payment information                                    | 51.63                               | 34.184                               | .589                                     | .899                                   |
| I can fully control over my data on the online store                                                         | 51.67                               | 31.942                               | .745                                     | .891                                   |
| I believe that the information shared with the online store will not be subject to resell to other companies | 50.99                               | 38.115                               | .270                                     | .909                                   |
| The online store allows to visit in an anonymous manner.                                                     | 51.22                               | 34.812                               | .505                                     | .903                                   |
| The online store allows to manage/customize privacy setting                                                  | 51.44                               | 34.609                               | .566                                     | .900                                   |
| Overall, the privacy protection in online store is excellent                                                 | 51.39                               | 32.934                               | .772                                     | .890                                   |
| Overall, online store comes up to my expectations of protecting privacy                                      | 51.43                               | 35.223                               | .604                                     | .898                                   |

Table 7: Reliability: Privacy, after reduction

| Reliability statistics                       |                                              |            |
|----------------------------------------------|----------------------------------------------|------------|
| <i>Reliability: Privacy, after reduction</i> |                                              |            |
| Cronbach's Alpha                             | Cronbach's Alpha Based on Standardized Items | N of Items |
| .913                                         | .912                                         | 11         |

Table 8: Reliability: User Interface Quality

| Reliability statistics        |                                              |            |
|-------------------------------|----------------------------------------------|------------|
| <i>User Interface Quality</i> |                                              |            |
| Cronbach's Alpha              | Cronbach's Alpha Based on Standardized Items | N of Items |
| .522                          | .566                                         | 10         |

Table 9: Initial item – total statistics: User Interface Quality

| Item – Total Statistics                                                                               |                            |                                |                                    |                                  |
|-------------------------------------------------------------------------------------------------------|----------------------------|--------------------------------|------------------------------------|----------------------------------|
| <i>User Interface Quality</i>                                                                         |                            |                                |                                    |                                  |
|                                                                                                       | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item – Total Correlation | Cronbach's Alpha if Item Deleted |
| The structure of online content is easy to follow                                                     | 29.40                      | 19.251                         | .360                               | .470                             |
| The information on the Web site is attractively displayed.                                            | 30.70                      | 18.945                         | .399                               | .461                             |
| I like the way the environment of online stores look & its visuals                                    | 29.62                      | 16.478                         | .425                               | .480                             |
| It is easy to navigate and trace the user interactions.                                               | 29.41                      | 19.030                         | .284                               | .480                             |
| It is easy for me to complete a transaction through online store                                      | 30.68                      | 18.194                         | .404                               | .449                             |
| The Web site presents information that is easy to understand.                                         | 30.89                      | 19.393                         | .096                               | .542                             |
| The information on the Web site facilitates buying the products or services that it sells or markets. | 29.97                      | 17.441                         | .236                               | .494                             |
| The Web site provides the up-to-date products and services information.                               | 30.93                      | 18.429                         | .209                               | .501                             |
| The Web site provides the relevant the products/services information.                                 | 30.82                      | 22.052                         | -.103                              | .590                             |
| The website presents information that is well organized                                               |                            | 20.579                         | .125                               | .520                             |



Table 10: Reliability: User Interface Quality, after recoding

| Reliability statistics                        |                                              |            |
|-----------------------------------------------|----------------------------------------------|------------|
| <i>User Interface Quality, after recoding</i> |                                              |            |
| Cronbach's Alpha                              | Cronbach's Alpha Based on Standardized Items | N of Items |
| .577                                          | .617                                         | 10         |

Table 11: Item – total statistics: User Interface Quality, after recoding

| Item – Total Statistics                                                                               |                            |                                |                                    |                                  |
|-------------------------------------------------------------------------------------------------------|----------------------------|--------------------------------|------------------------------------|----------------------------------|
| <i>User Interface Quality – after recoding</i>                                                        |                            |                                |                                    |                                  |
|                                                                                                       | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item – Total Correlation | Cronbach's Alpha if Item Deleted |
| The structure of online content is easy to follow                                                     | 30.1803                    | 21.042                         | .405                               | .528                             |
| The information on the Web site is attractively displayed.                                            | 30.2377                    | 20.679                         | .450                               | .518                             |
| I like the way the environment of online stores look & its visuals                                    | 31.4755                    | 18.235                         | .447                               | .493                             |
| It is easy to navigate and trace the user interactions.                                               | 30.4016                    | 20.837                         | .319                               | .538                             |
| It is easy for me to complete a transaction through online store                                      | 30.1885                    | 20.832                         | .328                               | .536                             |
| The Web site presents information that is easy to understand.                                         | 31.4590                    | 21.044                         | .139                               | .590                             |
| The information on the Web site facilitates buying the products or services that it sells or markets. | 31.6639                    | 20.175                         | .179                               | .582                             |
| The Web site provides the up-to-date products and services information.                               | 30.7459                    | 20.142                         | .245                               | .556                             |
| The Web site provides the relevant the products/services information.<br>(RECODED)                    | 30.9262                    | 22.052                         | .109                               | .590                             |
| The website presents information that is well organized                                               | 31.5984                    | 22.457                         | .162                               | .572                             |

Table 12: Reliability: User Interface Quality

| Reliability statistics                          |                                              |            |
|-------------------------------------------------|----------------------------------------------|------------|
| <i>User Interface Quality - after reduction</i> |                                              |            |
| Cronbach's Alpha                                | Cronbach's Alpha Based on Standardized Items | N of Items |
| .724                                            | .729                                         | 5          |

Table 13: Reliability: Loyalty

| Reliability statistics |                                              |            |
|------------------------|----------------------------------------------|------------|
| <i>Loyalty</i>         |                                              |            |
| Cronbach's Alpha       | Cronbach's Alpha Based on Standardized Items | N of Items |
| .719                   | .714                                         | 9          |

Table 14: Item – total statistics: Loyalty

| Item – Total Statistics                                                                |                            |                                |                                    |                                  |
|----------------------------------------------------------------------------------------|----------------------------|--------------------------------|------------------------------------|----------------------------------|
| <i>Loyalty</i>                                                                         |                            |                                |                                    |                                  |
|                                                                                        | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item – Total Correlation | Cronbach's Alpha if Item Deleted |
| I believe that this online company has better offers than its competitors              | 17.778                     | 10.371                         | .261                               | .717                             |
| I have repeatedly found that this online company is better than others                 | 17.889                     | 8.928                          | .521                               | .669                             |
| For me, being a customer of this company is almost like being a part of a large family | 18.830                     | 9.997                          | .378                               | .698                             |
| I prefer always so prioritize the new offers introduced by this online company         | 18.621                     | 9.540                          | .372                               | .699                             |
| I prefer to always favor this online company over others                               | 18.464                     | 8.435                          | .500                               | .673                             |
| For me, being a customer of this company is almost like being a part of a large family | 18.830                     | 9.997                          | .378                               | .698                             |
| I prefer always so prioritize the new offers introduced by this online company         | 18.621                     | 9.540                          | .372                               | .699                             |
| I prefer to always favor this online company over others                               | 18.464                     | 8.435                          | .500                               | .673                             |
| I indent to maintain my relationships with this online company's website in the future | 18.111                     | 9.244                          | .426                               | .688                             |
| I encourage friends to do business with this site                                      | 17.647                     | 9.454                          | .516                               | .674                             |
| I say positive things about this site to other people                                  | 17.647                     | 10.072                         | .337                               | .704                             |
| I will do business with this site in the next few years                                | 17.418                     | 11.232                         | .221                               | .720                             |

## Appendix 6: Outputs – Results

### 6.1 Descriptive Statistics

Table 1: Frequency: Loyalty, “I believe that this online company has better offers than its competitors”

| Frequency                                                                        |                           |           |         |                    |
|----------------------------------------------------------------------------------|---------------------------|-----------|---------|--------------------|
| <i>I believe that this online company has better offers than its competitors</i> |                           |           |         |                    |
|                                                                                  |                           | Frequency | Percent | Cumulative percent |
| Valid                                                                            | Disagree                  | 12        | 7.8     | 7.8                |
|                                                                                  | Neither agree or disagree | 49        | 32      | 39.9               |
|                                                                                  | Agree                     | 92        | 60.1    | 100.0              |
| Total                                                                            |                           | 153       | 100.0   |                    |

Table 2: Frequency: Loyalty, “I encourage friends to do business with this site”

| Frequency                                                |                           |           |         |                    |
|----------------------------------------------------------|---------------------------|-----------|---------|--------------------|
| <i>I encourage friends to do business with this site</i> |                           |           |         |                    |
|                                                          |                           | Frequency | Percent | Cumulative percent |
| Valid                                                    | Disagree                  | 13        | 8.5     | 8.5                |
|                                                          | Neither agree or disagree | 27        | 17.6    | 26.1               |
|                                                          | Agree                     | 113       | 73.9    | 100.0              |
| Total                                                    |                           | 153       | 100.0   |                    |

Table 3: Frequency: Loyalty, “I say positive things about this site to other people”

| Frequency                                                    |                           |           |         |                    |
|--------------------------------------------------------------|---------------------------|-----------|---------|--------------------|
| <i>I say positive things about this site to other people</i> |                           |           |         |                    |
|                                                              |                           | Frequency | Percent | Cumulative percent |
| Valid                                                        | Disagree                  | 14        | 9.2     | 9.2                |
|                                                              | Neither agree or disagree | 25        | 16.3    | 25.5               |
|                                                              | Agree                     | 114       | 74.5    | 100.0              |
| Total                                                        |                           | 153       | 100.0   |                    |

Table 4: Frequencies: Loyalty, “I prefer always so prioritize the new offers introduced by this online company”

| Frequency                                                                             |                           |           |         |                    |
|---------------------------------------------------------------------------------------|---------------------------|-----------|---------|--------------------|
| <i>I prefer always so prioritize the new offers introduced by this online company</i> |                           |           |         |                    |
|                                                                                       |                           | Frequency | Percent | Cumulative percent |
| Valid                                                                                 | Disagree                  | 76        | 49.7    | 49.7               |
|                                                                                       | Neither agree or disagree | 50        | 32.7    | 82.4               |
|                                                                                       | Agree                     | 27        | 17.6    | 100.0              |
| Total                                                                                 |                           | 153       | 100.0   |                    |

Table 5: Frequencies: Loyalty, “I prefer to always favor this online company over others”

| <b>Frequency</b>                                                |                           |           |         |                    |
|-----------------------------------------------------------------|---------------------------|-----------|---------|--------------------|
| <i>I prefer to always favor this online company over others</i> |                           |           |         |                    |
|                                                                 |                           | Frequency | Percent | Cumulative percent |
| Valid                                                           | Disagree                  | 76        | 49.7    | 49.7               |
|                                                                 | Neither agree or disagree | 26        | 17      | 66.7               |
|                                                                 | Agree                     | 51        | 33.3    | 100.0              |
| Total                                                           |                           | 153       | 100.0   |                    |

Table 6: Frequencies: Loyalty, “I have repeatedly found that this online company is better than others”

| <b>Frequency</b>                                                              |                           |           |         |                    |
|-------------------------------------------------------------------------------|---------------------------|-----------|---------|--------------------|
| <i>I have repeatedly found that this online company is better than others</i> |                           |           |         |                    |
|                                                                               |                           | Frequency | Percent | Cumulative percent |
| Valid                                                                         | Disagree                  | 25        | 16.3    | 16.3               |
|                                                                               | Neither agree or disagree | 40        | 26.1    | 42.1               |
|                                                                               | Agree                     | 88        | 57.5    | 100.0              |
| Total                                                                         |                           | 153       | 100.0   |                    |

Table 7: Frequencies: Loyalty, “I will do business with this site in the next few years”

| <b>Frequency</b>                                               |                           |           |         |                    |
|----------------------------------------------------------------|---------------------------|-----------|---------|--------------------|
| <i>I will do business with this site in the next few years</i> |                           |           |         |                    |
|                                                                |                           | Frequency | Percent | Cumulative percent |
| Valid                                                          | Disagree                  | 1         | .7      | .7                 |
|                                                                | Neither agree or disagree | 16        | 10.5    | 11.1               |
|                                                                | Agree                     | 136       | 88.9    | 100.0              |
| Total                                                          |                           | 153       | 100.0   |                    |

Table 8: Frequencies: Satisfaction, “Overall, I am very satisfied with the online store”

| <b>Frequency</b>                                          |                           |           |         |                    |
|-----------------------------------------------------------|---------------------------|-----------|---------|--------------------|
| <i>Overall, I am very satisfied with the online store</i> |                           |           |         |                    |
|                                                           |                           | Frequency | Percent | Cumulative percent |
| Valid                                                     | Disagree                  | 1         | 1.3     | 1.3                |
|                                                           | Neither agree or disagree | 2         | 1.3     | 2.6                |
|                                                           | Agree                     | 149       | 97.4    | 100.0              |
| Total                                                     |                           | 153       | 100.0   |                    |

Table 9: Frequencies: Trust, “Overall, the online store is trustworthy”

| Frequency                                       |                          |           |         |               |                    |
|-------------------------------------------------|--------------------------|-----------|---------|---------------|--------------------|
| <i>Overall, the online store is trustworthy</i> |                          |           |         |               |                    |
|                                                 |                          | Frequency | Percent | Valid Percent | Cumulative percent |
| Valid                                           | To a very small extent   | 0         | 0       | 0             | 0                  |
|                                                 | To a small extent        | 3         | 2.0     | 2.0           | 2.0                |
|                                                 | To a varying extent      | 7         | 4.5     | 4.6           | 6.6                |
|                                                 | To a large extent        | 52        | 34.0    | 34.7          | 41.3               |
|                                                 | To a very large extent   | 88        | 57.5    | 58.7          | 100.0              |
|                                                 | Total                    | 150       | 98.0    | 100.0         |                    |
| Missing                                         | I do not have an opinion | 3         | 2.0     |               |                    |
| Total                                           |                          | 153       | 100.0   |               |                    |

Table 10: Frequencies: Privacy, “The Web site only collects user's personal data that are necessary for its activity.”

| Frequency                                                                                   |                          |           |         |               |                    |
|---------------------------------------------------------------------------------------------|--------------------------|-----------|---------|---------------|--------------------|
| <i>The Web site only collects user's personal data that are necessary for its activity.</i> |                          |           |         |               |                    |
|                                                                                             |                          | Frequency | Percent | Valid Percent | Cumulative percent |
| Valid                                                                                       | To a very small extent   | 0         | 0       | 0             | 0                  |
|                                                                                             | To a small extent        | 5         | 3.3     | 5.0           | 5.0                |
|                                                                                             | To a varying extent      | 13        | 8.5     | 12.9          | 17.8               |
|                                                                                             | To a large extent        | 52        | 34.0    | 51.5          | 69.3               |
|                                                                                             | To a very large extent   | 31        | 20.3    | 30.7          | 100.0              |
|                                                                                             | Total                    | 101       | 66.0    | 100.0         |                    |
| Missing                                                                                     | I do not have an opinion | 52        | 34.0    |               |                    |
| Total                                                                                       |                          | 153       | 100.0   |               |                    |

Table 11: Frequencies: Privacy, “I feel a safe when sending my personal information to the online store.”

| Frequency                                                                      |                          |           |         |               |                    |
|--------------------------------------------------------------------------------|--------------------------|-----------|---------|---------------|--------------------|
| <i>I feel a safe when sending my personal information to the online store.</i> |                          |           |         |               |                    |
|                                                                                |                          | Frequency | Percent | Valid Percent | Cumulative percent |
| Valid                                                                          | To a very small extent   | 0         | 0       | 0             | 0                  |
|                                                                                | To a small extent        | 1         | .7      | .9            | .9                 |
|                                                                                | To a varying extent      | 20        | 13.1    | 17.4          | 18.3               |
|                                                                                | To a large extent        | 53        | 34.6    | 46.1          | 64.3               |
|                                                                                | To a very large extent   | 41        | 26.8    | 35.7          | 100.0              |
|                                                                                | Total                    | 115       | 75.2    | 100.0         |                    |
| Missing                                                                        | I do not have an opinion | 38        | 24.8    |               |                    |
| Total                                                                          |                          | 153       | 100.0   |               |                    |

Table 12: Frequencies: Ease of Use, “The organization and structure of online content is easy to follow”

| Frequency                                                                 |                          |           |         |               |                    |
|---------------------------------------------------------------------------|--------------------------|-----------|---------|---------------|--------------------|
| <i>The organization and structure of online content is easy to follow</i> |                          |           |         |               |                    |
|                                                                           |                          | Frequency | Percent | Valid Percent | Cumulative percent |
| Valid                                                                     | To a very small extent   | 0         | 0       | 0             | 0                  |
|                                                                           | To a small extent        | 2         | 1.3     | 1.3           | 1.3                |
|                                                                           | To a varying extent      | 21        | 13.7    | 13.8          | 15.1               |
|                                                                           | To a large extent        | 57        | 37.3    | 37.5          | 52.6               |
|                                                                           | To a very large extent   | 72        | 47.1    | 47.4          | 100.0              |
|                                                                           | Total                    | 152       | 99.3    | 100.0         |                    |
| Missing                                                                   | I do not have an opinion | 1         | .7      |               |                    |
| Total                                                                     |                          | 153       | 100.0   |               |                    |

Table 13: Frequencies: Ease of Use, “It is easy for me to complete a transaction through the company’s web site”

| Frequency                                                                         |                          |           |         |               |                    |
|-----------------------------------------------------------------------------------|--------------------------|-----------|---------|---------------|--------------------|
| <i>It is easy for me to complete a transaction through the company’s web site</i> |                          |           |         |               |                    |
|                                                                                   |                          | Frequency | Percent | Valid Percent | Cumulative percent |
| Valid                                                                             | To a very small extent   | 0         | 0       | 0             | 0                  |
|                                                                                   | To a small extent        | 0         | 0       | 0             | 0                  |
|                                                                                   | To a varying extent      | 5         | 3.3     | 3.3           | 3.3                |
|                                                                                   | To a large extent        | 57        | 37.3    | 37.3          | 40.5               |
|                                                                                   | To a very large extent   | 91        | 59.5    | 59.5          | 100.0              |
|                                                                                   | Total                    | 153       | 100     | 100.0         |                    |
| Missing                                                                           | I do not have an opinion | 0         | 0       |               |                    |
| Total                                                                             |                          | 153       | 100.0   |               |                    |

Table 14: Frequencies: Security, “I feel safe in my online transactions”

| Frequency                                    |                          |           |         |               |                    |
|----------------------------------------------|--------------------------|-----------|---------|---------------|--------------------|
| <i>I feel safe in my online transactions</i> |                          |           |         |               |                    |
|                                              |                          | Frequency | Percent | Valid Percent | Cumulative percent |
| Valid                                        | To a very small extent   | 1         | .7      | .7            | .7                 |
|                                              | To a small extent        | 0         | 0       | 0             | 0                  |
|                                              | To a varying extent      | 7         | 4.6     | 4.7           | 5.3                |
|                                              | To a large extent        | 56        | 36.6    | 37.3          | 42.7               |
|                                              | To a very large extent   | 86        | 56.2    | 57.3          | 100.0              |
|                                              | Total                    | 150       | 98.0    | 100.0         |                    |
| Missing                                      | I do not have an opinion | 3         | 2.0     |               |                    |
| Total                                        |                          | 153       | 100.0   |               |                    |

Table 15: Frequencies: User interface quality, “It is easy to navigate and trace the user interactions.”

| Frequency                                                      |                          |           |         |               |                    |
|----------------------------------------------------------------|--------------------------|-----------|---------|---------------|--------------------|
| <i>It is easy to navigate and trace the user interactions.</i> |                          |           |         |               |                    |
|                                                                |                          | Frequency | Percent | Valid Percent | Cumulative percent |
| Valid                                                          | To a very small extent   | 3         | 2.0     | 2.0           | 2.0                |
|                                                                | To a small extent        | 1         | .7      | .7            | 2.6                |
|                                                                | To a varying extent      | 32        | 20.9    | 21.1          | 23.7               |
|                                                                | To a large extent        | 49        | 32.0    | 32.2          | 55.9               |
|                                                                | To a very large extent   | 67        | 43.8    | 44.1          | 100.0              |
|                                                                | Total                    | 152       | 99.3    | 100.0         |                    |
| Missing                                                        | I do not have an opinion | 1         | .7      |               |                    |
| Total                                                          |                          | 153       | 100.0   |               |                    |

Table 16: Frequencies: User interface quality, “The information on the Web site is attractively displayed.”

| Frequency                                                         |                          |           |         |               |                    |
|-------------------------------------------------------------------|--------------------------|-----------|---------|---------------|--------------------|
| <i>The information on the Web site is attractively displayed.</i> |                          |           |         |               |                    |
|                                                                   |                          | Frequency | Percent | Valid Percent | Cumulative percent |
| Valid                                                             | To a very small extent   | 0         | 0       | 0             | 0                  |
|                                                                   | To a small extent        | 4         | 2.6     | 2.7           | 2.7                |
|                                                                   | To a varying extent      | 33        | 21.6    | 22.1          | 24.8               |
|                                                                   | To a large extent        | 63        | 41.2    | 42.3          | 67.1               |
|                                                                   | To a very large extent   | 49        | 32.0    | 32.9          | 100.0              |
|                                                                   | Total                    | 149       | 97.4    | 100.0         |                    |
| Missing                                                           | I do not have an opinion | 4         | 2.6     |               |                    |
| Total                                                             |                          | 153       | 100.0   |               |                    |

## 6.2 Multiple Regression

| Frequency                                                      |                           |           |         |                    |
|----------------------------------------------------------------|---------------------------|-----------|---------|--------------------|
| <i>I will do business with this site in the next few years</i> |                           |           |         |                    |
|                                                                |                           | Frequency | Percent | Cumulative percent |
| Valid                                                          | Disagree                  | 1         | .7      | .7                 |
|                                                                | Neither agree or disagree | 16        | 10.5    | 11.1               |
|                                                                | Agree                     | 136       | 88.9    | 100.0              |
| Total                                                          |                           | 153       | 100.0   |                    |

Table 1: Model summary

| Model summary <sup>b</sup> |                   |                |                         |                            |               |
|----------------------------|-------------------|----------------|-------------------------|----------------------------|---------------|
| Model                      | R                 | R <sup>2</sup> | Adjusted R <sup>2</sup> | Std. error of the estimate | Durbin-Watson |
| 1                          | .584 <sup>a</sup> | .341           | .282                    | .32255                     | 2.128         |

a. Predictors: Satisfaction, Trust, Ease of Use, User Interface Quality, Privacy, Security

b. Dependent variable: Loyalty

Table 2: Coefficients

| Coefficients <sup>a</sup> |           |                   |               |        |      |                               |             |                         |       |
|---------------------------|-----------|-------------------|---------------|--------|------|-------------------------------|-------------|-------------------------|-------|
|                           | Un-std. B | Coeff. Std. error | Std. Coeff. B | t      | Sig. | 95% Confidence Interval for B |             | Collinearity statistics |       |
|                           |           |                   |               |        |      | Lower bound                   | Upper Bound | Tolerance               | VIF   |
| (Constant)                | .329      | .415              |               | .794   | .430 | -.499                         | 1.157       |                         |       |
| Privacy                   | .190      | .104              | .279          | 1.828  | .072 | -.018                         | .398        | .423                    | 2.364 |
| Ease of Use               | .105      | .072              | .161          | 1.467  | .147 | -.038                         | .248        | .818                    | 1.222 |
| Security                  | .299      | .116              | .477          | 2.582  | .012 | .068                          | .530        | .288                    | 3.470 |
| UIQ                       | .065      | .069              | .110          | .923   | .355 | -.074                         | .203        | .713                    | 1.403 |
| Satisfaction              | .261      | .154              | .227          | 1.691  | .096 | -.047                         | .569        | .545                    | 1.835 |
| Trust                     | -.356     | .127              | -.565         | -2.808 | .007 | -.610                         | -.103       | .243                    | 4.115 |

a. Dependent variable: Loyalty

Table 3: ANOVA

| ANOVA <sup>a</sup> |            |                |    |             |       |                   |
|--------------------|------------|----------------|----|-------------|-------|-------------------|
|                    | Model      | Sum of Squares | df | Mean Square | F     | Sig.              |
| 1                  | Regression | 3.605          | 6  | .601        | 5.776 | .000 <sup>b</sup> |
|                    | Residual   | 6.971          | 67 | .104        |       |                   |
|                    | Total      | 10.576         | 73 |             |       |                   |

a. Dependent variable: Loyalty

b. Predictors: Satisfaction, Trust, Ease of Use, User interface quality, Privacy, Security

### 6.3 Linear Regression and Mediation

Table 1: Privacy – Loyalty, ANOVA

| ANOVA <sup>a</sup> |            |                |    |             |        |                   |
|--------------------|------------|----------------|----|-------------|--------|-------------------|
|                    | Model      | Sum of Squares | df | Mean Square | F      | Sig.              |
| 1                  | Regression | 1.993          | 1  | 1.993       | 17.600 | .000 <sup>b</sup> |
|                    | Residual   | 8.831          | 78 | .113        |        |                   |
|                    | Total      | 10.823         | 79 |             |        |                   |

a. Dependent variable: Loyalty

b. Predictors: Privacy

Table 2: Privacy – Loyalty, Model Summary

| Model summary <sup>b</sup> |                   |                |                         |                            |               |
|----------------------------|-------------------|----------------|-------------------------|----------------------------|---------------|
| Model                      | R                 | R <sup>2</sup> | Adjusted R <sup>2</sup> | Std. error of the estimate | Durbin-Watson |
| 1                          | .429 <sup>a</sup> | .184           | .174                    | .33647                     | 1.381         |

a. Predictors: Privacy

b. Dependent variable: Loyalty



Table 3: Privacy – Loyalty, Coefficients

| Coefficients <sup>a</sup> |              |                      |                  |       |      |                                  |             |
|---------------------------|--------------|----------------------|------------------|-------|------|----------------------------------|-------------|
|                           | Un-std.<br>B | Coeff. Std.<br>error | Std.<br>Coeff. B | t     | Sig. | 95% Confidence Interval for<br>B |             |
|                           |              |                      |                  |       |      | Lower bound                      | Upper Bound |
| (Constant)                | 1.097        | .299                 |                  | 3.671 | .000 | .502                             | 1.692       |
| Privacy                   | .293         | .070                 | .429             | 4.195 | .000 | .154                             | .432        |

a. Dependent variable: Loyalty

Table 4: Privacy – Satisfaction, Coefficients

| Coefficients <sup>a</sup> |              |                      |                  |       |      |                                  |             |
|---------------------------|--------------|----------------------|------------------|-------|------|----------------------------------|-------------|
|                           | Un-std.<br>B | Coeff. Std.<br>error | Std.<br>Coeff. B | t     | Sig. | 95% Confidence Interval for<br>B |             |
|                           |              |                      |                  |       |      | Lower bound                      | Upper Bound |
| (Constant)                | 1.678        | .249                 |                  | 6.729 | .000 | 1.182                            | 2.175       |
| Privacy                   | .288         | .058                 | .488             | 4.939 | .000 | .172                             | .404        |

a. Dependent variable: Satisfaction

Table 5: Privacy and Satisfaction – Loyalty, Coefficients

| Coefficients <sup>a</sup> |              |                      |                  |       |      |                                  |             |
|---------------------------|--------------|----------------------|------------------|-------|------|----------------------------------|-------------|
|                           | Un-std.<br>B | Coeff. Std.<br>error | Std.<br>Coeff. B | t     | Sig. | 95% Confidence Interval for<br>B |             |
|                           |              |                      |                  |       |      | Lower bound                      | Upper Bound |
| (Constant)                | .767         | .373                 |                  | 2.057 | .043 | .024                             | 1.510       |
| Privacy                   | .237         | .080                 | .346             | 2.976 | .004 | .078                             | .395        |
| Satisfaction              | .197         | .135                 | .170             | 1.459 | .149 | -.072                            | .465        |

a. Dependent variable: Loyalty

Table 6: Privacy – Trust, Coefficients

| Coefficients <sup>a</sup> |              |                      |                  |       |      |                                  |             |
|---------------------------|--------------|----------------------|------------------|-------|------|----------------------------------|-------------|
|                           | Un-std.<br>B | Coeff. Std.<br>error | Std.<br>Coeff. B | t     | Sig. | 95% Confidence Interval for<br>B |             |
|                           |              |                      |                  |       |      | Lower bound                      | Upper Bound |
| (Constant)                | 1.108        | .375                 |                  | 2.955 | .004 | .361                             | 1.854       |
| Privacy                   | .787         | .088                 | .713             | 8.973 | .000 | .612                             | .962        |

a. Dependent variable: Trust

Table 7: Privacy and Trust – Loyalty, Coefficients

| <b>Coefficients<sup>a</sup></b> |              |                      |                  |       |      |                               |             |
|---------------------------------|--------------|----------------------|------------------|-------|------|-------------------------------|-------------|
|                                 | Un-std.<br>B | Coeff. Std.<br>error | Std.<br>Coeff. B | t     | Sig. | 95% Confidence Interval for B |             |
|                                 |              |                      |                  |       |      | Lower bound                   | Upper Bound |
| (Constant)                      | 1.101        | .317                 |                  | 3.474 | .001 | .470                          | 1.733       |
| Privacy                         | .297         | .100                 | .434             | 2.957 | .004 | .097                          | .497        |
| Trust                           | -.004        | .091                 | -.007            | -.047 | .963 | -.185                         | .177        |

a. Dependent variable: Loyalty

Table 8: Ease of Use – Loyalty, ANOVA

| <b>ANOVA<sup>a</sup></b> |            |                |     |             |        |                   |
|--------------------------|------------|----------------|-----|-------------|--------|-------------------|
|                          | Model      | Sum of Squares | df  | Mean Square | F      | Sig.              |
| 1                        | Regression | 2.456          | 1   | 2.456       | 18.739 | .000 <sup>b</sup> |
|                          | Residual   | 19.739         | 151 | .131        |        |                   |
|                          | Total      | 22,249         | 152 |             |        |                   |

a. Dependent variable: Loyalty

b. Predictors: Ease of use

Table 9: Ease of Use – Loyalty, Model summary

| <b>Model summary<sup>b</sup></b> |                   |                |                         |                            |               |
|----------------------------------|-------------------|----------------|-------------------------|----------------------------|---------------|
| Model                            | R                 | R <sup>2</sup> | Adjusted R <sup>2</sup> | Std. error of the estimate | Durbin-Watson |
| 1                                | .332 <sup>a</sup> | .110           | .105                    | .36205                     | 1.677         |

a. Predictors: Ease of use

b. Dependent variable: Loyalty

Table 10: Ease of Use – Loyalty, Coefficients

| <b>Coefficients<sup>a</sup></b> |              |                      |                  |       |      |                               |             |
|---------------------------------|--------------|----------------------|------------------|-------|------|-------------------------------|-------------|
|                                 | Un-std.<br>B | Coeff. Std.<br>error | Std.<br>Coeff. B | t     | Sig. | 95% Confidence Interval for B |             |
|                                 |              |                      |                  |       |      | Lower bound                   | Upper Bound |
| (Constant)                      | 1.261        | .232                 |                  | 5.444 | .000 | .803                          | 1.719       |
| Ease of Use                     | .224         | .052                 | .332             | 4.329 | .000 | .122                          | .326        |

a. Dependent variable: Loyalty

Table 11: Ease of Use – Satisfaction, Coefficients

| <b>Coefficients<sup>a</sup></b> |              |                      |                  |        |      |                               |             |
|---------------------------------|--------------|----------------------|------------------|--------|------|-------------------------------|-------------|
|                                 | Un-std.<br>B | Coeff. Std.<br>error | Std.<br>Coeff. B | t      | Sig. | 95% Confidence Interval for B |             |
|                                 |              |                      |                  |        |      | Lower bound                   | Upper Bound |
| (Constant)                      | 2.463        | .157                 |                  | 15.649 | .000 | 2.152                         | 2.774       |
| Ease of Use                     | .102         | .035                 | .229             | 2.896  | .004 | .032                          | .171        |

a. Dependent variable: Satisfaction

Table 12: Ease of Use and Satisfaction – Loyalty, Coefficients

| <b>Coefficients<sup>a</sup></b> |              |                      |                  |       |      |                               |             |
|---------------------------------|--------------|----------------------|------------------|-------|------|-------------------------------|-------------|
|                                 | Un-std.<br>B | Coeff. Std.<br>error | Std.<br>Coeff. B | t     | Sig. | 95% Confidence Interval for B |             |
|                                 |              |                      |                  |       |      | Lower bound                   | Upper Bound |
| (Constant)                      | .329         | .364                 |                  | .906  | .367 | -.389                         | 1.048       |
| Ease of Use                     | .185         | .052                 | .275             | 3.598 | .000 | .084                          | .287        |
| Satisfaction                    | .378         | .116                 | .249             | 3.257 | .001 | .149                          | .608        |

a. Dependent variable: Loyalty

Table 13: Ease of Use and Satisfaction – Loyalty, Model summary

| <b>Model summary<sup>b</sup></b> |                   |                |                            |                               |                   |
|----------------------------------|-------------------|----------------|----------------------------|-------------------------------|-------------------|
| Model                            | R                 | R <sup>2</sup> | Adjusted<br>R <sup>2</sup> | Std. error of<br>the estimate | Durbin-<br>Watson |
| 1                                | .311 <sup>a</sup> | .169           | .158                       | .35105                        | 1.701             |

a. Predictors: Ease of use and Satisfaction

b. Dependent variable: Loyalty

Table 14: Security – Loyalty, ANOVA

| <b>ANOVA<sup>a</sup></b> |                |     |             |        |                   |  |
|--------------------------|----------------|-----|-------------|--------|-------------------|--|
| Model                    | Sum of Squares | df  | Mean Square | F      | Sig.              |  |
| 1 Regression             | 2.123          | 1   | 2.123       | 15.931 | .000 <sup>b</sup> |  |
| Residual                 | 20.126         | 151 | .133        |        |                   |  |
| Total                    | 22.249         | 152 |             |        |                   |  |

a. Dependent variable: Loyalty

b. Predictors: Security

Table 15: Security – Loyalty, Model summary

| <b>Model summary<sup>b</sup></b> |                   |                |                            |                               |                   |
|----------------------------------|-------------------|----------------|----------------------------|-------------------------------|-------------------|
| Model                            | R                 | R <sup>2</sup> | Adjusted<br>R <sup>2</sup> | Std. error of<br>the estimate | Durbin-<br>Watson |
| 1                                | .309 <sup>a</sup> | .095           | .089                       | .36508                        | 1.590             |

a. Predictors: Security

b. Dependent variable: Loyalty

Table 16: Security – Loyalty, Coefficients

| <b>Coefficients<sup>a</sup></b> |              |                      |                  |       |      |                               |             |
|---------------------------------|--------------|----------------------|------------------|-------|------|-------------------------------|-------------|
|                                 | Un-std.<br>B | Coeff. Std.<br>error | Std.<br>Coeff. B | t     | Sig. | 95% Confidence Interval for B |             |
|                                 |              |                      |                  |       |      | Lower bound                   | Upper Bound |
| (Constant)                      | 1.396        | .217                 |                  | 6.426 | .000 | .967                          | 1.826       |
| Security                        | .195         | .049                 | .309             | 3.991 | .000 | .099                          | .292        |

b. Dependent variable: Loyalty

Table 17: Security – Satisfaction, Coefficients

| <b>Coefficients <sup>a</sup></b> |              |                      |                  |        |      |                               |             |
|----------------------------------|--------------|----------------------|------------------|--------|------|-------------------------------|-------------|
|                                  | Un-std.<br>B | Coeff. Std.<br>error | Std.<br>Coeff. B | t      | Sig. | 95% Confidence Interval for B |             |
|                                  |              |                      |                  |        |      | Lower bound                   | Upper Bound |
| (Constant)                       | 2.224        | .139                 |                  | 15.965 | .000 | 1.949                         | 2.500       |
| Security                         | .157         | .031                 | .377             | 5.004  | .000 | .095                          | .219        |

a. Dependent variable: Satisfaction

Table 18: Security and Satisfaction – Loyalty, Coefficients

| <b>Coefficients <sup>a</sup></b> |              |                      |                  |       |      |                               |             |
|----------------------------------|--------------|----------------------|------------------|-------|------|-------------------------------|-------------|
|                                  | Un-std.<br>B | Coeff. Std.<br>error | Std.<br>Coeff. B | t     | Sig. | 95% Confidence Interval for B |             |
|                                  |              |                      |                  |       |      | Lower bound                   | Upper Bound |
| (Constant)                       | .626         | .349                 |                  | 1.795 | .075 | -.063                         | 1.314       |
| Security                         | .141         | .052                 | .223             | 2.726 | .007 | .039                          | .243        |
| Satisfaction                     | .346         | .124                 | .228             | 2.790 | .006 | .101                          | .592        |

a. Dependent variable: Loyalty

Table 19: Security and Satisfaction – Loyalty, Model summary

| <b>Model summary <sup>b</sup></b> |                   |                |                         |                            |               |
|-----------------------------------|-------------------|----------------|-------------------------|----------------------------|---------------|
| Model                             | R                 | R <sup>2</sup> | Adjusted R <sup>2</sup> | Std. error of the estimate | Durbin-Watson |
| 1                                 | .374 <sup>a</sup> | .140           | .129                    | .35714                     | 1.608         |

a. Predictors: Satisfaction and Security

b. Dependent variable: Loyalty

Table 20: Security – Trust, Coefficients

| <b>Coefficients <sup>a</sup></b> |              |                      |                  |        |      |                               |             |
|----------------------------------|--------------|----------------------|------------------|--------|------|-------------------------------|-------------|
|                                  | Un-std.<br>B | Coeff. Std.<br>error | Std.<br>Coeff. B | t      | Sig. | 95% Confidence Interval for B |             |
|                                  |              |                      |                  |        |      | Lower bound                   | Upper Bound |
| (Constant)                       | 1.620        | .256                 |                  | 6.327  | .000 | 1.114                         | 2.127       |
| Security                         | .655         | .058                 | .679             | 11.361 | .000 | .541                          | .768        |

a. Dependent variable: Trust

Table 21: Security and Trust – Loyalty, Coefficients

| <b>Coefficients <sup>a</sup></b> |              |                      |                  |       |      |                               |             |
|----------------------------------|--------------|----------------------|------------------|-------|------|-------------------------------|-------------|
|                                  | Un-std.<br>B | Coeff. Std.<br>error | Std.<br>Coeff. B | t     | Sig. | 95% Confidence Interval for B |             |
|                                  |              |                      |                  |       |      | Lower bound                   | Upper Bound |
| (Constant)                       | 1.477        | .245                 |                  | 6.035 | .000 | .994                          | 1.961       |
| Security                         | .228         | .067                 | .361             | 1.418 | .001 | .096                          | .360        |
| Trust                            | -.050        | .069                 | -.076            | -.724 | .470 | -.187                         | .087        |

a. Dependent variable: Loyalty

Table 22: User interface quality – Loyalty, ANOVA

| <b>ANOVA <sup>a</sup></b> |                |     |             |        |                   |  |
|---------------------------|----------------|-----|-------------|--------|-------------------|--|
| Model                     | Sum of Squares | df  | Mean Square | F      | Sig.              |  |
| 1 Regression              | 2.884          | 1   | 2.884       | 22.716 | .000 <sup>b</sup> |  |
| Residual                  | 17.394         | 137 | .127        |        |                   |  |
| Total                     | 20.278         | 138 |             |        |                   |  |

a. Dependent variable: Loyalty

b. Predictors: User interface quality

Table 23: User interface quality – Loyalty, Model summary

| Model summary <sup>b</sup> |                   |                |                         |                            |               |
|----------------------------|-------------------|----------------|-------------------------|----------------------------|---------------|
| Model                      | R                 | R <sup>2</sup> | Adjusted R <sup>2</sup> | Std. error of the estimate | Durbin-Watson |
| 1                          | .377 <sup>a</sup> | .142           | .136                    | .35632                     | 1.612         |

a. Predictors: User interface quality

b. Dependent variable: Loyalty

Table 24: User interface quality – Loyalty, Coefficients

| Coefficients <sup>a</sup> |           |                   |               |       |      |                               |             |
|---------------------------|-----------|-------------------|---------------|-------|------|-------------------------------|-------------|
|                           | Un-std. B | Coeff. Std. error | Std. Coeff. B | t     | Sig. | 95% Confidence Interval for B |             |
|                           |           |                   |               |       |      | Lower bound                   | Upper Bound |
| (Constant)                | 1.418     | .178              |               | 7.970 | .000 | 1.066                         | 1.770       |
| UIQ                       | .220      | .046              | .377          | 4.766 | .000 | .129                          | .311        |

a. Dependent variable: Loyalty

Table 25: User interface quality – Satisfaction, Coefficients

| Coefficients <sup>a</sup> |           |                   |               |        |      |                               |             |
|---------------------------|-----------|-------------------|---------------|--------|------|-------------------------------|-------------|
|                           | Un-std. B | Coeff. Std. error | Std. Coeff. B | t      | Sig. | 95% Confidence Interval for B |             |
|                           |           |                   |               |        |      | Lower bound                   | Upper Bound |
| (Constant)                | 2.447     | .125              |               | 19.595 | .000 | 2.200                         | 2.694       |
| UIQ                       | .123      | .032              | .308          | 3.792  | .000 | .059                          | .187        |

a. Dependent variable: Satisfaction

Table 26: User interface quality and Satisfaction – Loyalty, Coefficients

| Coefficients <sup>a</sup> |           |                   |               |       |      |                               |             |
|---------------------------|-----------|-------------------|---------------|-------|------|-------------------------------|-------------|
|                           | Un-std. B | Coeff. Std. error | Std. Coeff. B | t     | Sig. | 95% Confidence Interval for B |             |
|                           |           |                   |               |       |      | Lower bound                   | Upper Bound |
| (Constant)                | .682      | .340              |               | 2.002 | .047 | .008                          | 1.355       |
| UIQ                       | .183      | .048              | .314          | 3.845 | .000 | .089                          | .277        |
| Satisfaction              | .301      | .119              | .206          | 2.521 | .013 | .065                          | .537        |

a. Dependent variable: Loyalty

Table 27: User interface quality and Satisfaction – Loyalty

| Model summary <sup>b</sup> |                   |                |                         |                            |               |
|----------------------------|-------------------|----------------|-------------------------|----------------------------|---------------|
| Model                      | R                 | R <sup>2</sup> | Adjusted R <sup>2</sup> | Std. error of the estimate | Durbin-Watson |
| 1                          | .425 <sup>a</sup> | .181           | .168                    | .34955                     | 1.630         |

a. Predictors: Satisfaction and User interface quality

b. Dependent variable: Loyalty

## Appendix 7: Developed Prototype

Figure 7.1 Landing Page

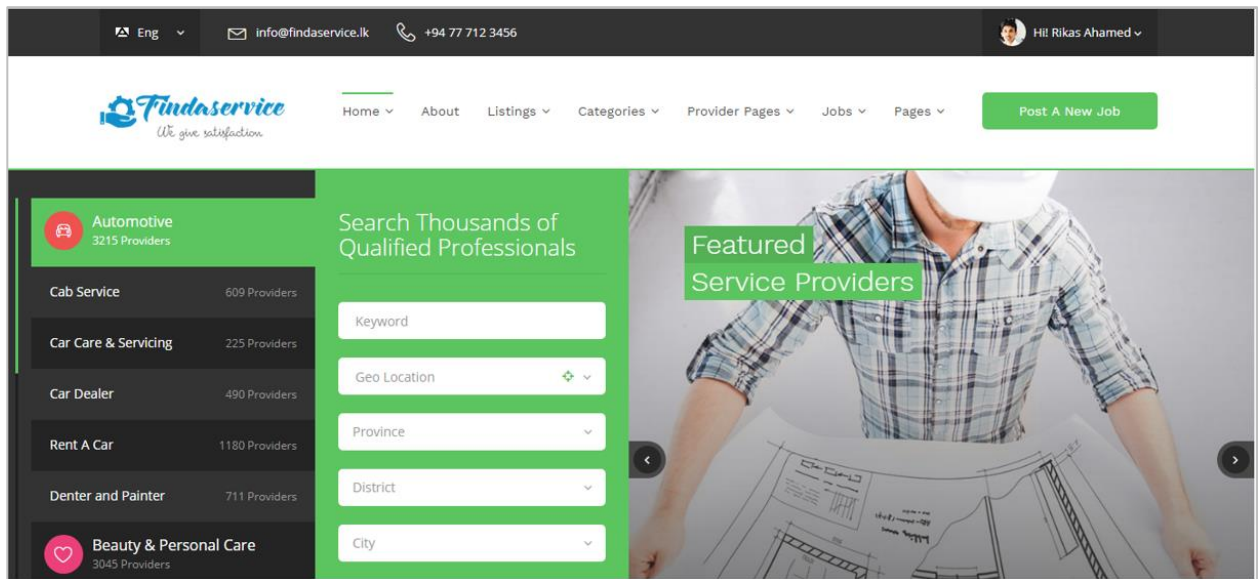


Figure 7.2 Structured and Well-Organized Content with Filters

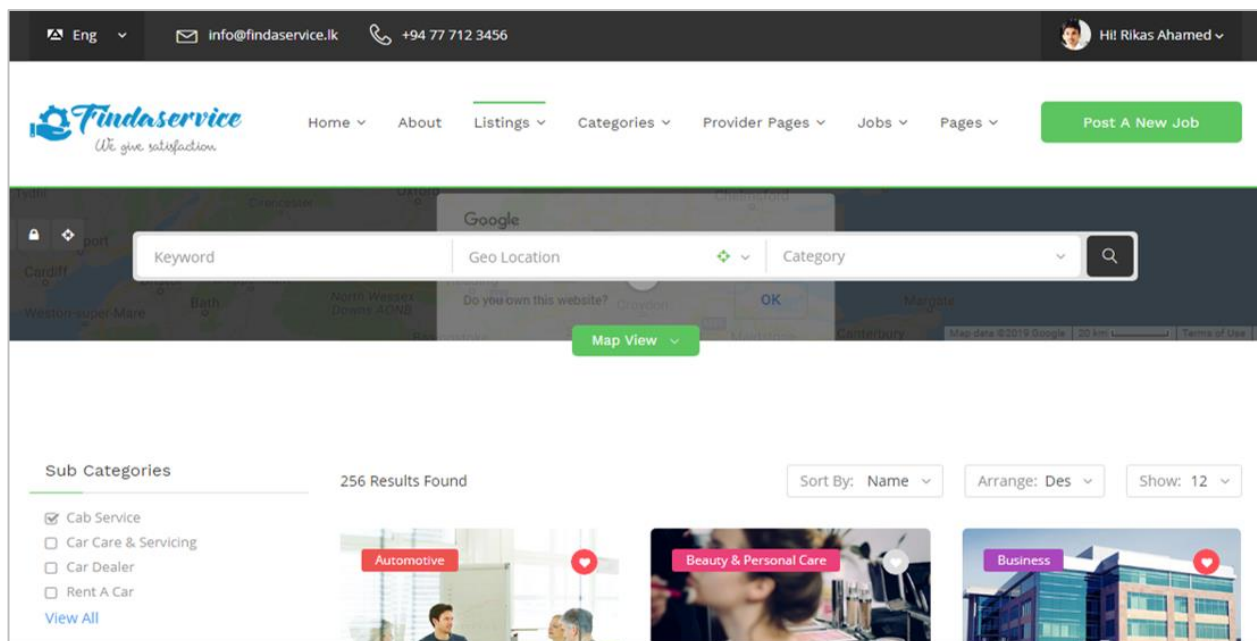


Figure 7.3 Managing the Account and Password for Secured Access

The screenshot shows the user dashboard for 'Rikas Ahamed' on the Findaservice platform. The dashboard includes a sidebar with navigation links: Insights, Profile Settings, Business Hours, Manage Services, Manage Team, Manage Jobs, Private Messages (124), Appointments, Appointment Settings, Favourite Listings, Invoices (23), and Update Package. The main content area has two sections: 'Change Your Password' and 'Deactivate Account'.

**Change Your Password**

Current Password  New Password  Retype Password

**Deactivate Account**

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Reason Of Leaving?  Current Password  Retype Password

Description

Figure 7.4 Managing Privacy and Control over Personal Information

The screenshot shows the 'Privacy Settings' section of the user dashboard for 'Rikas Ahamed'. The settings are listed with toggle switches to enable or disable them.

**Privacy Settings**

|                           |                                            |
|---------------------------|--------------------------------------------|
| Make Profile Photo Public | Disable <input type="checkbox"/>           |
| Make Banner Photo Public  | Disable <input type="checkbox"/>           |
| Appointment Option        | Disable <input type="checkbox"/>           |
| Contact Details           | Enable <input checked="" type="checkbox"/> |
| Business Hours            | Enable <input checked="" type="checkbox"/> |
| Show Services             | Enable <input checked="" type="checkbox"/> |
| Show Team                 | Disable <input type="checkbox"/>           |
| Show Gallery              | Enable <input checked="" type="checkbox"/> |
| Show Videos               | Disable <input type="checkbox"/>           |

*Figure 7.5. Transaction with online payment*

### Payment Summary

Please review the following details for this transaction.

| Description          | Item Price      |
|----------------------|-----------------|
| Deedad Shirt M Brown | LKR 2000        |
| iPhone Data Cable    | LKR 500         |
| <b>Total</b>         | <b>LKR 2500</b> |

### Billing Information

Enter your payment details below.

**Payment Method \***

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