



ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
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CUSTOMERS TRUST BUILDING FRAMEWORK FOR E-HAILING SERVICE IN
ETHIOPIA

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ADDIS ABABA UNIVERSITY
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CUSTOMERS TRUST BUILDING FRAMEWORK FOR E-HAILING SERVICE IN
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Statement of Declaration

I, Wubit Tameru, declare that this Master's research entitled — **Customers Trust Building Framework for E-hailing Service in Ethiopia** is submitted in partial fulfillment of the requirements for the degree of Master of Information systems at the School Information Science, Addis Ababa University. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this research is my own work.

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Acknowledgments

First and for most I would like to glorify God and Virgin Mary for giving me the strength, courage, wisdom, and ability to do this paper and for all their blessing in my life.

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Abstract

Trust is a very important element in the success of e-commerce. The lack of customer trust is one of the focused issues today as the world moves toward the advanced information and technology era. This research aims to investigate the major determinates of customers' trust and tried to propose a framework to build consumers' trust toward e-hailing service. The research examines the factors that determine consumers' trust by understanding the concept of trust, reviewing several trust-related models, frameworks, and recommended by other scholars. Descriptive statistics and regression analysis were employed to investigate how the respondents perceive the factors to be, to feel trust in e-commerce. The analysis is done using SPSS statistics version 20. Frequencies, percentages, and regression analysis were used for discussion for the questionnaire collected from the respondents. The data were collected through questionnaires using a convenience sampling technique from 384 respondents of e-hailing service users. The findings of this study indicate that Customer service, Perceived Security, Assurance, Reputation, and Familiarity determines consumers' trust are critical factors that significantly determine consumers trust toward e-hailing service. Other factors such as Brand, Website/ Application Quality, and Perceived Privacy also have a close association with trust toward e-hailing services.

The proposed trust building framework was evaluated by selected respondents from the participants during the survey. The proposed trust building framework will reduces customers trust issues as well it helps to build and enhance customers' trust toward e-hailing services. Accordingly, there is a need to implement the proposed framework which will have a major contribution for the electronic transportation sector in Ethiopia.

Keyword: E-hailing, Trust, E-commerce, Framework

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Chapter One

Introduction

This chapter guides the reader to the motivation for this research by presenting the research problem domain. In addition, it provides an introduction to the thesis and the research topic along with a general background on the concept of trust in the online environment.

1.1. Background of the study

Nowadays Internet users around the world are drastically increasing. This growth opens opportunities for merchants to sell their products and services online widely to the world. Online sales lead to dynamic changes in the business environment. Online shopping is becoming increasingly popular because of the speed and ease of use for customers in the world. E-business activities can be directed at consumers or other businesses. Business to Consumer (B2C) involves the online sales of goods, services, and the provision of information directly to consumers. Business to Business (B2B) refers to the online exchange of products, services, or information between businesses. This is because of widespread internet usage and also the decrease in the cost of using it. But in Ethiopia, this kind of business handling is still behind and it becomes an unfulfilled dream. Currently, Ethiopia's market is characterized by direct face-to-face interaction with customers at sales locations or shops (Kelela and Mesfin, 2017). E-commerce in developing countries like Ethiopia has difficulty addressing widely but it can be predicted as a new driver for economic growth.

E-commerce is defined as the use of the Internet, the World Wide Web (Web), and mobile apps and browsers running on mobile devices to transact business (Kutz, 2016). Most of the time the terms internet and web are used interchangeably but meanwhile, scholars have defined the two terms differently. The web was developed after a while the internet has been created. Internet is defined as a worldwide network of computer networks built on common standards. It was created in the late 1960s in order to connect a small number of mainframe computers and their users (Kutz, 2016). On the other hand, the World Wide Web is an information system that runs on the internet infrastructure which contains a collection of information that can be accessed via the internet. The Web was developed in the early 1990s and hence is of much more recent vintage than the Internet (Kutz, 2016). The web plays a vital role in the emergence of the digital market on the internet. It

allowed creating a communication infrastructure and information storage system for different kinds of services like radio, televisions, and magazines.

According to Kutz (2016) E-commerce business may employ some or all of the following activities:

- Online shopping websites for retail sales direct to consumers,
- Providing or participating in online marketplaces, which process third-party business to consumers (B2C) or consumers to consumer(C2C)
- Business to business buying and selling
- Gathering and using demographic data through web contacts and social media
- Business to business data interchange
- Marketing to prospective and established customers by E-mail or Fax

The integration of technology in the transportation sector improved the traveling experience and enhanced convenience. So nowadays, convenience is one of the most important factors for people who live in the cities especially people who do not have a car or often use public transportation. When integrating new technologies, creates a feeling of uncertainty and risk. For this reason, assuring trust in the online environment is a vital aspect. An often-mentioned reason for consumers not purchasing online is lack of trust (Petrovic, Ksela, Fallonbock and Kittl, 2003). When a consumer trusts in a vendor, feelings of confidence and security occur towards the vendor. Only the technical aspect is not good enough to gain users' trust in the online market. E-vendors can promote trust in different mechanisms and it's important to manage customers' trust toward e-commerce.

According to the Collaboration on International ICT Policy in East and Southern Africa (CIPES A) center research (CIPESA, 2018) regarding privacy and data collection on the online environment in Ethiopia implies that the lack of a comprehensive institutional framework to provide oversight on the collection and processing of data by public and private bodies remains a significant challenge in Ethiopia. Building trust in this kind of environment is very difficult. For this reason, this research intends to identify the most dominant factors which help to establish customers' trust toward e-commerce. By reviewing related literature and research this study presented the concept of trust in multidiscipline and investigate the factors that build customers'

trust in e-commerce. In this study, a trust-building framework is proposed toward e-commerce specifically on e-hailing services.

A taxi service carries out an important task of offering personalized service in the urban transportation system. The technology embraced by Ride, Zay ride and other e-hail applications have numerous benefits over traditional taxis. E-hailing apps use metered rates to generate fares unlike traditional taxis estimate the price based on the distance well the price varies when it's day and night which is unfair for the customers. The unbalance supply of taxis compared to the demand of the passengers creates difficulty for the travelers to be picked up on time. The e-hailing application creates convenience that allows customers to hail a cab easily from wherever they are. Since the application uses GPS the taxi nearby the users can contact the customer and provide the transportation service.

The major importance of studying the electronics transportation service is to create or facilitate the convenience and effectiveness of the service between the service providers and customers within this industry.

1.2.Statement of the problem

The taxi transportation industry in Ethiopia was much unorganized and not so affordable (Negatu, 2013). The introduction of the E-hailing service platform has made it possible for users to arrange car transportation from any location using their smartphones and has given them access to a whole new group of service providers. New industry entrants, like RIDE and ZayRide, have made structural changes to an old industry that functioned much the same way it did decades ago. When dealing with an untouched and unseen environment, users or consumers tend to question the trustworthiness of this electronic environment (Rusli, Che-Hussin, & Dahlan, 2010).

Trust is not something that is built or presented through the vendors' site but it's developed through a time when the consumer makes a return purchase from the same vendor. To cooperate in the transaction, both the sellers and buyers must trust each other. It is also not only built by the consumers' beliefs and feelings, there are other determinants that the consumer builds trust upon (Stewart, 2003).

According to Ahmed and Anwar (2012), a trustworthy website includes the professionalism of website design, prolonged existence, service by the vendor, selection, and positive comments from

other users about personal experience with the website and vendor. On the other hand, a poor-quality website is characterized as anything that violates a user's expectations such as unprofessional design, novelty, complex interface, difficulty in finding products, and poor comments by other users. According to Singh, Yadav, and Sahu (2016) research, revealed that the inability to physically interact with an item, fear of risk security and privacy and lack of e-commerce infrastructure are the main barriers that prevent consumers from online apparel products shopping in Ethiopia.

According to the Collaboration on International ICT Policy in East and Southern Africa (CIPES

A) Center research undertaken in September 2018 the major threats to privacy and data protection were identified and explained as follows:

- *Lack of Adequate Legal and Policy Frameworks:* Ethiopia does not have a comprehensive data protection and privacy law that fully defines the obligations of data controllers and processors as well as the rights of data subjects. Even though provisions that can be used to this effect can be found in the rather fragmented legal framework, these legislations are still not adequate nor are they up to date to deal with the emerging technological advancements and privacy concerns in modern times.
- *Lack of Institutional Machinery:* The lack of an institutional framework to provide oversight on the collection and processing of data by public and private bodies is a significant challenge for Ethiopia
- *Unregulated Collection and Sharing of Sensitive Private Data:* both public and private sectors collect personal information without applying an adequate transparency safeguard. This sector doesn't inform the users what type of information is being collected and the purpose it will be applied for. In the wake of the increasing penetration of e-commerce companies that provide various services, poor data management practices are quite alarming as the risks are high.
- *The Lack of Transparency in the Legislative Drafting Process:* this study indicated that the public, civil society organizations, academics, and other concerned non-governmental bodies had not been consulted in the drafting process of the data protection draft proclamation and neither were they aware of its existence.

- *The Risks Associated with Privatization:* MTN and Vodafone, are already showing interest to enter the Ethiopian market, but giving this opportunity for these companies without adequate legal and institutional frameworks in place, the fate of data belonging to the customers of Ethio-Telecom especially in terms of risk of abuse and misuse remains unclear.

Aponte (2015) identified perceived security, perceived privacy, perceived risk, internet experience, and perception of website quality as a determinant of consumers' trust toward e-commerce in an application to Puerto Rico. This research was intended only to know the perception of the participants relating to the factors that influence the consumer's trust towards electronic commerce in Puerto Rico.

Mola (2012) citing Lawrence & Tar (2010) research work who stated that Confidence and trust is an essential requirement for secure electronic trading as one of the barriers hindering e-commerce adoption in developing countries. This researcher stated that the geographical separation of buyers and sellers, often coupled with a lack of real-time visual or oral interaction, creates a barrier to e-commerce adoption in developing countries.

Gustavsson and Johansson (2006) stated that e-commerce and trust are areas in constant change. Due to this people's perception of trust in e-commerce will most likely change as e-commerce will become even more integrated into people's lives. So, it's required to study the factors that determine consumers' trust in e-commerce in sometime range. According to the literature review (Hsu, 2008; Mazhar, Jam, & Anwar, 2012), most of the studies that tackle the determinant of consumer trust and trust-building framework in e-commerce are very old in time. Moreover, these researchers also stated that consumers' trust from a different culture might emphasize different trust establishing factors by connecting trust in e-commerce with culture.

Consumers and businesses, in general, need to ensure an appropriate level of consumer confidence and trust in their activities in Ethiopia (Lemma, 2017). Trust generally is an important factor that plays a crucial role in the acceptance of online purchases.

Currently, there are limited local researches regarding e-commerce. Most of the research is focused only on the adoption or challenge of e-commerce. For instance, Mola (2012) mentioned that there is a lack of trust and confidence in an e-commerce transaction. The study conducted by Yonas

(2017) indicated that the major challenge the Ethiopian e-commerce industry faces in the adoption of Electronic commerce is, security risk, lack of trust, lack of legal and regulatory framework, Lack of ICT infrastructure, and absence of competition.

The above-mentioned studies didn't attempt to contribute to building consumer trust toward e-commerce. Indeed, these studies have mentioned a lack of trust as a barrier to e-commerce adoption. So, this study is intended to investigate the major and relevant factors that have been studied in previous work and propose a framework that contributes to building trust toward e-commerce specifically in the electronic transportation system.

This research therefore, aims to investigate and analyze the dominant factors that build customers' trust toward e-commerce and apply them to the e-hailing service to build up trust and making e-hailing service applicable and convenient to the customers. This helps the e-hailing service industry to grow and solve transportation problems encountered currently in the e-commerce business.

1.2.1. Research Questions

The general research question of this study is which factor is very important for the consumer to build trust towards e-commerce in the electronic transportation sector? So, this study focuses on the following research sub-questions:

- Which factors determine customers' trust toward e-commerce specifically on the electronic transportation system?
- Which factors are important for building consumer trust toward e-commerce in the electronic transportation system?
- How the Customers' trust-building framework be designed to create and enhance the convenience of e-hailing services in Ethiopia?

1.3.Objective of the Study

1.3.1. General Objective

The general objective of this study is, to investigate and propose a conceptual framework for building customer trust in E-commerce to facilitate the electronic transportation service in Ethiopia.

1.3.2. Specific objective

- To identify the determinants/factor of trust in e-commerce.
- To identify different E-commerce trust models and frameworks.
- To propose a customized conceptual trust-building framework for consumers' trust toward e-commerce in Ethiopia.
- To evaluate and describe customers' trust-building factors in e-hailing service using the proposed framework; based on which to forward recommendations for future research.

1.4. Significance of the Study

E-hailing has become the new trend of business mode. Due to this, this study contributes to enhancing the e-hailing platform in a way that can assure customers' trust toward the service. Customers' perception has been studied to build a framework to guide the requirement of the platform.

The researcher aims to investigate the determinant factors of consumer trust toward e-hailing service to enhance the e-hailing service in Ethiopia and also to come up with possible, attainable, and relevant solutions. In general, the study will have the following significance:

- Identification of the most significant factors that have a positive impact on consumers' trust to increase convince and functionality of the e-hailing service.
- The framework provides for E-hailing service providers for the design of the application mainly on the functionality requirements to fulfill consumers' needs.
- This study allows for the managers of E-hailing service providers to consider and evaluate the application software to take appropriate corrective measures in the area or to scale-up the positive factors for the promotion of e-hailing service in Ethiopia.
- This study contributes to further research to develop a legal framework for e-commerce in Ethiopia and serve as an additional source for reference. This study can be used as a base for further researches regarding e-commerce that want to conduct detailed research on the issue.
- This study contributes to the transportation sector by increasing the convenience and functionality of the service.

- The output of the study is also be used as a benchmark for E-hailing service providers as well as a source of a methodological approach for studies dealing with Consumers' trust in particular.

According to Turban (2006), the benefits of e-commerce can be grouped into three broad categories: benefits to organizations, benefits to customers, and benefits to society. Organizations use e-commerce as a new marketing medium and as a source of information on their products and services for potential customers (Standing and Lin, 2007). Customers too can benefit from the use of e-commerce, as it gives users a wide variety of choices (products and/or services) from which to make purchases and increases their convenience of shopping (Berezowski, 2003). So that assuring the customers' trust is vital by studying the factors that establish consumers' trust in e-commerce. This will benefit the organizations, customers themselves, and society. That is to say, this research is contributory research in this field. The findings and recommendations of the study will contribute towards the ongoing efforts on enhancing e-hailing services in Ethiopia.

1.5.Scope and Limitations of the study

There are different types of e-commerce but this study was conducted on the business-to-consumer (B2C) aspect of e-commerce specifically on the e-hailing system. It didn't include the investigation of the business-to-business (B2B) aspect or other categories of E-commerce which probably requires varying investigational approaches and was left as a future area of investigation.

Geographically, this research was limited to Addis Ababa only. This was due to two reasons. One was because of time, money, and experience shortage from the side of the researcher to make countrywide research. The other reason is that currently e-hailing service is only applied in Addis Ababa the capital city of Ethiopia. And also while conducting this research all the primary data were collected only from the customer side. The aim of collecting all necessary information from the customer side was to understand customers' perspective toward trust building factors within e-hailing services.

While undertaking this study, a researcher had encountered some limitations to mention some absence of well-organized and documented information concerning e-commerce specifically on the transportation sector in Ethiopia. This research is also constrained and limited by the following condition. Initially the researcher plan to investigate both from the customers' perspective and the

vendor side. Because of time constraints, during the survey the primary data was conducted only from the customers' side.

1.6. Organization of the thesis

This thesis assesses the current practice of e-commerce to understand security threats and to propose a framework for secure e-commerce implementation. The thesis is divided into five chapters which outline different parts and discussed different background materials. A short outline of the chapters is as follows:

The first chapter starts with a general introduction which includes motivation for the research. It explains the research objective and research problems, the need or significance of the research, its scope, and limitations.

Chapter two is devoted to the literature review. It discusses the concepts of trust in two sections. In the first section, the basic concepts of trust in the different fields were discussed in detail. In the second section, empirical works are reviewed and presented from different sources.

The third chapter discusses the methodology of the research in detail, starting from the research design, data collection methods used, and data analysis techniques employed.

Chapter four is about analyzing the data collected, discuss and interpret the result of the study as well as evaluating the research outcome as per the objective of the study.

Finally, chapter five contains the conclusion and recommendations for further work directions based on observations and results from the study.

Chapter Two

Literature review

2.1. Overview

The literature review explains the concepts of electronic commerce (e-commerce) and the results of previous studies on a consumer's trust build frameworks in e-commerce. The sources considered in the review include books, journals articles, previous thesis reports that are related to the current study enhancing consumer trust in e-commerce.

This section first defines e-commerce and then discusses the different categories of e-commerce and trust in the online environment and points out the most dominant factors of consumers' trust in e-commerce.

2.2. What is Electronic Commerce?

Electronic commerce is a growing aspect of the business community (Kenneth & Carol, 2017). Customers can buy practically anything and everything online – from book stores and groceries, fresh foods, and motor vehicles to airline tickets and stocks. The availability of internet access and the variety of services offered by companies on their websites have combined to make e-commerce an attractive alternative to the traditional means of in-person or telephone shopping. But what is e-commerce?

There are many definitions for the concept of E-commerce depending on the perspective of the viewers or authors. Some authors (Ali, 2013; Hoffman & Novak, 1999; Mazhar, Jam, & Anwar, 2012) define E-commerce as being different from E-business; others see and define both concepts as the same. These two concepts create debate about the meaning and limitation of E-commerce and E-business among authors. Some authors argue that E-commerce encompasses the entire world of electronically based organizational activity that supports the firms' market exchange. Including firms' entire information system infrastructure. On the other hand, Yazid & Zailani, (2006) argue, that E-business encompasses the entire world of internal and external electronically based activities.

Kenneth & Carol (2017) suggested that, it is important to make a working destination between E-commerce and E-business because they believe that the two concepts refer to different phenomena.

They have stated that E-commerce is not “anything digital” that a firm does, on the other hand, the term e-business refers primarily to the digital enabling of transactions and processes within a firm, involving information systems under the control of the firm. In their point of view, e-business does not include commercial transactions involving an exchange of value across organizational boundaries.

Thus, the definition of e-commerce is very broad and e-commerce means different things to different authors. This section lists some of the various definitions present in the literature. Most of the time E-commerce is associated with buying and selling over the Internet, or conducting any transaction involving the transfer of ownership or rights to use goods or services through a computer-mediated network. For this study, however, below are a few definitions of E-Commerce as described by different authors

- “E-commerce is defined as a commercial exchange system, which makes use of computers, and communication network advancements. It is the use of product information in electronic form instead of paper, for business or government operations.” (Kenneth and Zaipuna, 2017)
- “Electronic Commerce deals with facilitation of transactions and selling of products and services online either via the internet or any other telecommunications network” (Jelassi & Enders, 2005).
- “The use of electronic communication or and digital information processing technology in business transactions to create, transform and redefine relationships for value creation between or among organizations and between organizations and individuals”. (Esumeh & Idris, 2015)
- “E-commerce, commonly written as e-commerce, is the trading in products or service using computer network, such as internet” (Martin, 2017)

The E-commerce definition that is employed in this research is the process of buying or selling products or services over the Internet.

2.2.1. Categories of E-commerce

Many types of E-Commerce are practiced by a different companies. According to Ohene-Djan (2008), e-commerce is classified into five categories as described as follows.

2.2.1.1. Business-To-Business e-commerce

The largest category of e-commerce is business-to-business (B2B) commerce. This involves companies conducting e-procurement, supply chain management, network alliances, and negotiating purchase transactions over the internet. Businesses use e-commerce to lower transaction costs of conducting business and to make savings in terms of time and effort when conducting business.

2.2.1.2. Business processes

Business process refers to the use of e-commerce to tailor the internal activities of a business to maximize its efficiency and effectiveness. Through the use of e-commerce, businesses can fine-tune supply chains, provide advanced consumer relations management systems, and reduce transaction costs.

2.2.1.3. Business-To-Consumer e-commerce

Business-to-consumer (B2C) e-commerce involves businesses introducing products and services to consumers via internet technologies. This includes companies selling software and hardware through the internet, taking orders for products that are subsequently delivered to the consumer, and providing digital services such as online magazines and search engines.

2.2.1.4. Consumer-To-Consumer e-commerce

Consumer-to-consumer (C2C) e-commerce is concerned with the use of e-commerce by individuals to trade and exchange information with other individuals.

2.2.1.5. Business-To-Government e-commerce

Business-to-government (B2G) e-commerce is concerned with the need for businesses to sell goods or services to governments or government agencies. Such activities include supplying the army, police force, hospitals, and schools with products and services. Furthermore, businesses will often compete in an online environment for contracts to provide services to the public on behalf of

the government. Such services may include the collection of taxes and the supply of public services.

Table 1 below provides a summary of the different e-commerce categories with description.

Category	Description
Business-to-business (B2B)	Businesses sell products or services to other businesses.
Business processes that support buying and selling activities	Businesses and other organizations maintain and use the information to identify and evaluate consumers, suppliers, and employees. Increasingly, businesses share this information in carefully managed ways with their consumers, suppliers, employees, and business partners.
Business-to-consumer (B2C)	Businesses sell products or services to individual consumers.
Consumer-to-consumer (C2C)	Participants in an online marketplace can buy and sell goods to each other. As businesses also utilize this type, it can be considered a type of B2C e-commerce.
Business-to-government (B2G)	Businesses sell goods or services to governments and government agencies. Can also be considered as part of B2C e-commerce.

Table 1: Categories of E-commerce (Source: Ohene-Djan, 2008)

Since this research focuses on business to consumer aspect of e-commerce, the following sections provide a general overview of the E-hailing service application which is one of the Business to the consumer category.

2.3. E-hailing Application

Dhawan and Yadav (2018) define e-hailing as the process of ordering a car, taxi, or any other mode of transportation by way of a computer or mobile device. ‘E’ here refers to ‘electronic’ and ‘hail’ means the traditional process of signaling an approaching taxi cab to stop.

Onyango (2016) defines e-hailing applications as a software program licensed by Transportation Network Companies (TNC) residing on a smartphone or other electronic device and integrated with the Taxi Passenger Enhancement Program (TPEP). According to the California Public Utilities Commission, TNC defined as "an organization whether a corporation, partnership, sole proprietor, or other forms that provide prearranged transportation services for compensation using an online-enabled application (app) or platform to connect passengers with drivers using their vehicles". The TNC definition outlines the following three elements (Onyango, 2016):

- Use of a digital platform or software application, typically accessed via smartphone.
- A prearranged ride between drivers and passengers.
- A driver using a personal vehicle to provide transportation

Based on this definition Ride, Zayride, and Pick Pick meter taxi can be mentioned as one of the TNC in Ethiopia.

Goodin and Moran (2016) discuss how the TNC services work as follows. First, the passengers are required to download the e-hailing application to smartphones, tablets, or computers and register. The software application facilitates the ride request, connects passengers to a driver, uses global positioning systems (GPS) to navigate to the pick-up and drop-off locations, and shares the vehicle's progress and estimated arrival with both driver and passenger. After the trip is complete, the application automatically charges the fare to the linked credit card, logs the trip, and generates a receipt. Onyango (2016) stated that the app provides the customers to review taxi services and also it allows the customers to monitor the progress of a taxi as well as to get relevant information about the drivers (see figure 1).

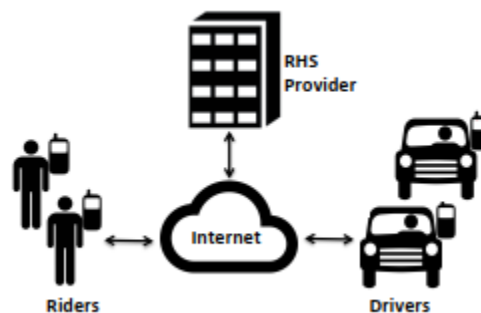


Figure 1: Ride-hailing services (source: Pham, Dacosta, Jacot-Guillarmod, Huguenin, 2017)

2.3.1. Features of E-hailing Applications

The features of the E-hailing application vary in a different app. In this section, the basic feature of the E-hailing application is discussed (Onyango, 2016).

2.3.1.1. Booking Option

Onyango (2016) stated that this feature includes user registration requirements, support for multiple languages, free calls (VoIP), and choose taxi, booking on future dates, ease of communication, reduced wait time, ease of scheduling and dispatching, and maps. This feature allows the customers to select a ride based on the passenger's choice.

2.3.1.2. Tracking

Dhawan and Yadav (2018) stated that this feature enables both customers and drivers to track or monitor the progress of the ride in a real-time manner. The tracking feature function by collaborating the internet connectivity, Personalization, Global Positioning System (GPS) navigation, and the Map.

2.3.1.3. Customer/ Driver Information

This feature provides information about the customer/driver that was registered previously. This makes it easier for the passengers and the drivers to locate each other. The app provides the drivers' name, phone number, plate number, arrival time, and location which plays an important role for the passengers to trust that specific ride.

2.3.1.4. Security Feature

Currently in Ethiopia legal framework that is related to privacy and data protection is not constructed. But according to Dhawan and Yadav (2018), the Security feature of cabs provides emergency buttons to passengers. Also, one can add emergency contacts in the app to alert their dear ones to help them in case of any adverse situation

2.3.1.5. Costing model

To allow the users to compute the price with other e-hailing service providers this feature allows the customers to predetermine the cost of their ride and most likely it bills the passengers after the ride is completed.

2.3.1.6. Payment method

This feature allows the customers to provide the payment in different mechanisms. As Onyango (2016) stated in his paper, in Kenya, customers can pay for cab fare using Mpesa or Visa and MasterCard branded bank cards. According to an article published on Addis fortune on Sep 20, 2016, ZayRide, a local IT firm, has inked a deal to facilitate the payment of taxi fares for the newly delivered meter taxis, with M-Birr. This will allow users to make payments anywhere they are using their mobile gadgets. But currently, the e-hailing services in Ethiopia mostly use the cash-based payment method.

2.3.1.7. Rating

Rating feature plays a vital role to gain customers' trust toward e-hailing services. It provides a better review of services and facilitates a star rating. As Onyango (2016) stated this encourages professional behavior and respect from both passengers and operators and fosters greater communication between the customers and operators.

2.4. Trust in E-commerce

2.4.1. Definition of Trust

Trust can be described in a simple term as when someone is willing to rely on others with full confidence without any doubt (McKnight, Choudhury, & Kacmar, 2002). It's very important to create a positive interpersonal relationship in a different kind of situation. Trust is a central component in effective working relationships (Gabarro, 1978). Portales, Ricart, & Rosanas (1998) argue that trust has been recognized as an essential element for business, but at the same time, as something difficult to achieve. Without building trust it's difficult to create a partnership. Padua (2012) set out the following key elements of trust:

- The trustor believes that the trustee will behave in the future in a manner that will allow him/her, the trustor, to attain his/her goal. (The trustor has a positive expectation based on information that could also stem from positive past experiences.)
- The trustor accepts that the trustee may not respond to expectations. (The trustor is vulnerable and takes this risk under a condition of *uncertainty*. This is an irrational component.)

- The trustor cannot control the trustee's behavior. (The trustor has no power. Trust is beyond any relationship of power and control.)
- *Distrust* may occur if there is no reciprocity (trust is misplaced as the trustee does not meet the trustor's belief), or there is too much trust (the trustor exceeds any reasonable vulnerability).
- *Trustworthiness* is the outcome of the freely willed intention of the trustee to support the trustor in the future.

Trust has been defined in many ways by different researchers across disciplines that a typology of the various types of trust in a very high degree need. This is due to each discipline view trust from its unique perspective.

From a sociological perspective, trust is conceived as a property of a collective unit to build and maintain a social relationship. Due to this trust applies to the relations among people rather than to their psychological states taken individually (Lewis & Weigert 1985). Trust allows social interactions to proceed on a simple and confident basis where, in the absence of trust, the monstrous complexity posed by contingent futures would again return to paralyze action (Lewis & Weigert, 1985). According to Gambetta (1988) trust is a subjective probability that another party will perform an action that will not hurt my interest under uncertainty and ignorance.

On the other hand, social psychologists point up trust among individuals. According to Evans and Krueger (2009), Interpersonal trust is a mental construct with implications for social functioning and economic behavior. Erikson (1950) argued that the ability to trust others is necessary to form relationships and function in the social world. Trust is the confidence that one will find what is desired from others, rather than what is feared (Holmes & Rempel, 1989). However many contemporary descriptions in psychology share the following two features (Goodwill, 2016):

- Trust implies the willingness of the trustor (the trusting individual) to be vulnerable.
- Trust involves holding positive expectations in the trustee (that is, the individual/group being trusted).

In the management, field trust has been studied very widely because of its importance toward business performance. The major area that attracts management researchers is trust within organizations, the role of trust in relationships between organizations and other areas of trust

research have emerged within the context of management. Teresa (2014) state that in all areas of life and work trust seem to interfere in relations, people, objectives, and contracts.

According to Mayer (1995) trust is a willingness of a party to be vulnerable to the actions of another party based on the expectation that the other party will perform a particular action important to the vulnerable party, irrespective of the vulnerable party's ability to monitor or control that other party.

As stated in this section trust has been conceptualized by many prior researchers in multidisciplinary. Since this paper is about trust in the online market (E-commerce) specifically the electronic public transportation system (E-hailing service) the next topic deals with the concept of trust in the online environment.

2.5. The concept of Trust in Online Environment

Trust is an important aspect that helps consumers feel secure and comfortable using the digital market (Bauman & Bachmann, 2017). It helps the users to overcome their insecurities, uncertainties, and fear of risk to provide important information to buy products or services online. As a new mechanism for commercial activity, the online market involves much more uncertainty and risk than the traditional market. Trust is a key to interpersonal relationships for e-commerce because it's important to identify the interaction between the merchants and consumers. Palak, & Akshat (2016) argued that trust has always been an important element in influencing consumer behavior toward merchants and has been shown to be of high significance in uncertain environments such as Internet-based Electronic Commerce environments. Earning the trust of customers has a value incalculable, and spending on the technology needed to protect them is minimal compared with the advantages that reports and the overall costs of a company (Wasfi, Zeglal, & Al-zawahreh, 2012). Trust in the online environment has an impact on the success and failure of the online market.

No matter how a marketplace is trustworthy the customers first have to feel the trust. Trust depends on individual perception toward the online market and how this individual experience the online environment. If an individual trusts the other party then they are more likely to cooperate. But building trust is not that easy to construct. Individuals are not expected to trust in innovation before they adopt it or make themselves familiar with that environment. To believe in the first time

involves taking a risk, therefore to take the risk this individual requires an assurance that their trust won't be compromised and the trust will be repaid.

Pennanen (2009) argued that what to include within the concept of 'trust' appears to be particularly problematic. This is because of the confusion of expressing trust in a different context. Pennanen (2009) mention few researchers point of view in his study, for instance, he stated Bhattacharjee (2002) research that treats trustworthiness as a dimension of trust, although some others consider trustworthiness to be a characteristic of a trustee and an antecedent to trust. For these reasons Pennanen (2009) divided e-trust research trends into the following four major areas of research

- I. *General models*, which strive for explaining the phenomenon of consumer e-trust in general. This model emphasizes a different point of view from several fields like Social psychology, sociology, and philosophy to outline the general view from different aspects. A trust model should be able to support trust relationships that are required by users and online businesses and to provide control mechanisms that allow them to establish and enhance trust.
- II. *Antecedents to consumer e-trust*: within trust research, several different antecedents to consumer trust have been found in the e-commerce context. For instance, Kim and Ferrin(2003) developed three categories of antecedents that influence a consumer's trust toward an electronic commerce vendor. The categories are named Consumer Personality-oriented, experience-oriented, and perception (observation). Personality-oriented deals with a disposition to trust and internet shopping. While the experience-oriented deal with familiarity, ease of use, Internet experience, satisfaction, and so on. And the third one which is consumers' perception includes privacy protection, security protection, and presence of third party seals, system reliability, information quality, and reputation. According to this research, the personality-oriented and experience-oriented antecedents are related to the characteristics of consumers, which are not easy to improve and manage from the selling party's perspectives.
- III. *Consumer characteristics and e-trust*: Pennanen (2009) argued that consumer characteristics are consumer-specific antecedents to e-trust. It present in every trusting-situation but interpersonal and institutional antecedents to e-trust are trustee-specific and

present only in trusting situations. Due to this, Pennanen (2009) stated that consumer characteristics are treated as a separate concept.

- IV. Consequences of e-trust: the previous three research areas deal with the antecedent to e-trust. As Pennanen (2009) stated this research area deals with the outcomes that consumer perception of interpersonal or institutional trustworthiness generates.

According to this classification, this study is about Antecedents to consumer e-trust. The reason behind this selected research is due to that the researcher believes studying the antecedent helps to understand the prior factors that affect customers' trust and to use these factors as a possible solution to build up customers' trust toward e-hailing service.

Researchers have been discussed various factors that are vital for establishing trust within the online environment. But because of the multidimensionality construct of trust, there's no common model for e-commerce trust. This had led to a diversity of trust conceptualizations and operationalization across disciplines. For this reason, literature has been reviewed to grasp the various dimensions of trust, and the most mentioned factors, important for establishing consumer trust are discussed within the following section.

2.6. Contributing factors of E-commerce trust

Palak, & Akshat (2016) stated that security systems, privacy, the reputation of the company, payment methods offered by it, customer service provided, the website design, control of technology, ease of usage, user-friendliness of the website, and the price offered by the company are some of the factors which are the most important to the consumers for trusting the e-commerce website. Mazhar, Jam, & Anwar (2012) discussed that Consumers' trust in e-commerce is a factor of the word of mouth for the newcomers, which plays a vital role in developing trust in consumers because of their serious concerns for the privacy of the information which they provide on the website for a specific transaction. Metzger (2004) argued that concern about privacy makes many consumers hesitant to provide information while doing business online. Due to these reasons, e-commerce companies have to give their attention to the consumers' concerns toward their privacy issues and find a way of communicating the sensitivity on their websites with their consumers. E-commerce websites' technical trustworthiness has to involve consumers' securities of their personal sensitive information. It is important to build trust between online sellers and consumers

for the growth of e-commerce in Ethiopia, it plays an important role in influencing consumers' behavior.

Generally, e-commerce can be described as the buying and selling of goods or services using the internet. The public transportation system is one of the sectors e-commerce applied which is called an e-hailing service. As discussed in the previous section e-hailing is defined as the process of ordering a car, taxi, or any other mode of transportation by way of computer or mobile device. Currently, there are no studies that have been conducted on the e-hailing service regarding customers' trust. Since the e-hailing service takes most of the e-commerce characteristics the contributing factors that were identified under e-commerce were applied in this specific area for this study.

The antecedents of trust are not set to specific factors due to that many researchers have identified the factors in different aspects. This study has assessed and reviewed those research that tackles the determinants of consumer trust toward the online environment then select the most significant factors from different research and compiled them to compete and came up with an applicable factor in the context of e-hailing service. These selected factors are discussed as follows:

2.6.1. Familiarity

Knowledge-based trust antecedents such as familiarity with the online vendor suggest that trust develops over time (Hsu, 2008). Trust accumulated over time with experience as the relationship develops with the accumulation of trust. One of the preconditions for trust is familiarity. It's the way of subjectively reducing uncertainty, insecurities, and risk. Familiarity deals with an understanding of the current actions of other people or objects (Gefen, 2000). It's all about the understanding of the given context. Thus, the development of trust between parties requires time and interaction history (McKnight, Cummings, and Chervany, 1998). In e-commerce, consumer familiarity, for example, familiarity with E-hailing service platform- Ride can be mentioned as one of the well-known e-hailing service providers in Ethiopia. So that familiarity would be the knowledge of register relevant information, choosing vehicles/fleet, and hailing taxi using the platform. Accordingly, familiarity with a trustworthy online vendor should increase consumer trust. This occurs because more familiarity implies an increasing amount of accumulated knowledge derived from experiencing previous successful interactions through the website (Gefen, 2000).

Familiarity reduces uncertainty by establishing a structure (Luhmann, 1979). It is another way people subjectively reduce uncertainty and simplify their relationships with others (Gefen, 2000). In the case of using an e-hailing service platform, familiarity would reduce complexity through an understanding of how to inquire and hail a taxi using the platform. Without familiarity with the context, trust cannot be adequately anchored to specific favorable behaviors and thus cannot be as strongly conferred (Gefen, 2000).

Gefen (2000) stated two reasons that familiarity can build trust. The first reason is that trust in another person or organization is built when the other person or organization behaves in accordance with one's own favorable expectations of them. The second reason is that familiarity not only provides a framework for future expectations but also lets people create concrete ideas of what to expect based on previous interactions.

2.6.2. Brand

The product itself is the primary brand, however with services the company itself is the primary brand (Berry, 2000). Brand name support consumers to recognize reliable and trusted services or products without a second thought. According to Gallagher (2002) brands offer three critical benefits to online enterprises: brands lower search costs, proxy quality, and inspire trust. Stecko and Zatwarnicka-Madura's (2012) research shows that customers perceive brand image first. If it appears to be good, then building trust is simple. The studies carried out by Power and Whelan (2008) show that:

- The worse is the image of the brand, the lower is the trust of consumers;
- The greater is the trust to brand, the greater would be its attractiveness;
- The greater is the trust, the greater is the attachment to the brand.

According to Lien (2015), brand image is an important antecedent in determining trust, reflecting that an attractive and valuable brand increases consumer trust in the product/service associated with the brand. Customers are more likely to prefer brands they believe to be trustworthy and reliable.

2.6.3. Reputation

Zrakováa, Demjanovičováa, and Kubina (2019) discussed that reputation can be briefly defined as a specific image of the company that interested parties have about the company. His image represents the company as a whole, i.e. who it is, how it tries to communicate and act towards individual stakeholders, what are its values, vision, and mission, what ability to meet the demands and needs of customers it has (Zrakováa, Demjanovičováa, and Kubina, 2019). Reputation can be enhanced by creating a connection with established and well-known entities. While firms in the traditional marketplace have built a good reputation through media exposure, customer word of mouth, and branding, the internet is transforming the way firms earn a reputation on the other hand Consumers now rely on social networking sites (e.g. Facebook, Twitter), comparison shopping services, or customer reviews on blogs in order to obtain information that enables them to evaluate the retailers' reputation. Biagi (2003) stated that the size of the business entity, the network system of relationships/partnerships, and the connection to the physical world are of paramount importance, and also the creation of online feedback allows the replication of reputation mechanisms found in traditional offline marketplaces. Parties whose actions do not support their original promises will develop an untrustworthy reputation and will no longer be able to operate. These effects can occur where parties know each other and each other's actions are verifiable. A positive company reputation improves performance and helps to better manage critical situations (Zrakováa, Demjanovičováa, and Kubina, 2019).

2.6.4. Website/ Application Quality

Potential customers visit companies' websites/applications to gather relevant information about the company or products or services- Information that is being published on site would affect the individual's perception. Ahmed and Anwar (2012) stated that specific design features of the websites have been found to affect online trustworthiness. Such features include ease of navigation, good use of visual design elements, and the overall professional look of the website, and ease of carrying out transactions. Sinha, Hearst, and Ivory (2001) have suggested that the quality of a website should be judge in-terms of content, structure and navigation, and functionality.

Content is an information that is provided on the site. Fung and Lee (1999) summarize the constructs of information that is being published into the following four attributes which are

accuracy, correctness, timeliness, and usefulness. As well good Content should be engaging, relevant, and appropriate for the audience. It has a voice, a point of view. It may be informative, useful, or funny but it always leaves you wanting more.' Contents that are appropriate and useful to the target audience have been identified as a strong factor for trustworthiness while mixing advertisements and content is a negative one (Ahmed and Anwar, 2012).

Structure and navigation refer to the organization of information on the site and the method in which you move through sections (Sinha, Hearst, and Ivory. 2001). It is the framework of the site that organizes the content that is being published. A good structure and navigation can be characterized as consistent, intuitive, and transparent.

Functionality: is the use of technology on the site. Good Functionality means the site loads quickly has live links, and any new technology used is functional and relevant for the intended audience (Sinha, Hearst, and Ivory, 2001). A site is not good enough if it only has sufficient information but also it has to be user friendly, in another word the site must have good functionality. The site should work cross-platform and be browser-independent.

According to Corbet (2003), trust as a critical factor in e-commerce, influenced predominantly by three sources e-commerce reputation in general, the consumers, and the specific e-commerce site. An empirical result from Corbitt, Thanasankit, and Yi (2003) suggested that perceived website quality has a positive impact on trust from Internet users in New Zealand. The following hypothesis is proposed in respect of the relationship between perceived site quality and trust.

2.6.5. Customer service

The process by which an organization delivers its services or products allows the consumer to access them most efficiently and cost-effectively and so meet the consumer's expectations. A poor customer service effort may substantially reduce consumers' future intentions to purchase from the organization, because the organization does not keep its promise and that dramatically reduces the trustworthiness of the organization.

Hsu (2008) argued that effective customer service can decrease consumer risk and inspire consumer trust. On the other hand, a poor customer service effort may substantially reduce their future intentions to purchase from the failing firm, because the firm does not keep its promise and that dramatically reduce the trustworthiness of the firm.

2.6.6. Perceived Security and Privacy

Online markets use the internet to transact their business and information. Due to this, proper and clear security has to be defined to guarantee the security of e-commerce during the transaction. Security and privacy are two key concerns to be addressed when deploying information and communication technologies (ICT). Coincidentally e-commerce shares security concerns with other technologies in information security frameworks (Kenneth & Zaipuna, 2017).

An information security framework is a synchronized system of behaviors and tools for monitoring transactions and data that are extended to where data utilization occurs, thereby providing end-to-end security (Kenneth & Zaipuna, 2017). E-commerce Security is a part of the Information Security framework and is specifically applied to the components that affect e-commerce that include Computer Security, Data Security, and other wider realms of the Information Security framework (Niranjanamurthy & Dharmendra, 2013). Security community researches have stated the common security concerns, cataloging them with the letters C, I, A, and more recently a second A (C, I, A, A) (Kenneth & Zaipuna, 2017)

- *Confidentiality*: ensure that an asset is visible only to actors authorized to see it.
- *Integrity*: ensure that the asset is not corrupted.
- *Availability*: ensure that the asset is readily accessible to agents that need it when they need it.
- *Authentication*: ensure that the identity of the asset

Lately, security becomes a crucial issue in online applications. This issue has a significant impact on e-commerce. The purge of trust in e-commerce applications may result in sensible business clients and operators giving up the use of the Internet for now and slip back to traditional ways of doing business (Kenneth & Zaipuna, 2017). While discussing security in e-commerce is all about safeguarding or protecting the availability, confidentiality, and integrity of every sensitive data that possess through the transactions over e-commerce.

Privacy involves the protection of personal information – not sharing consumers’ personal information with other sites, protecting anonymity, and providing informed consent (Kenneth & Zaipuna, 2017).

Like any other online shopping platform, E-hailing services face problems with users' privacy that features the security of monetary detail and privacy of non-public detail and location (Lin, et al., 2019). Ride-hailing service application like Ride and Zayride relies on GPS-enabled devices because the appliance needs the location of both the drivers and ride requesters to trace one another. E-hailing application common features that need users' inputs personal information like pickup or drop-off destination, home or work address, creating a profile using an email address or phone number, and other related information. In addition to granting location, some ride-hailing service platform requires the users to link to a social networking account, mostly, Facebook and Google account as a way of verifying identity and creating a profile. This grant gave the company to access the personal information that is registered in the Facebook or Google account.

2.6.7. Third-party Assurance

Guohua, Xiaorui, and Yuhong (2010) defined assurance as online consumers' perceptions of a vendor's efforts in addressing privacy, security, and transaction integrity concerns. Assurance is one of the mechanisms of Structural assurance which means that contextual conditions as promises, contracts, regulations, and guarantees are in place to be conducive to success. Third-party assurance is one of the mechanisms that a company that indicates its trustworthiness. When initially purchasing products/services from an online store, the consumer's choice of vendors is affected by assurance seals, which act as a means to guarantee consumers' private information.

2.6.8. Consumers Trust Building Framework for E-commerce

As Yánez (2017) stated in his article that Sanner (1997) has identified three bases upon which trust can be built. This trust build model contains nine factors that are studied or mentioned repeatedly by other researchers. Sanner (1997) includes Personality based trust, Knowledge-based trust, and Institutional based trust as a building block of the model.

Personality-based or Propensity to trust

The first base of the model is personal, which is associated with individual characteristics and named as *Personality-based or Propensity to trust*. Mayer, Davis, and Schoorman (1995) defined propensity to trust as “a stable within party factor that will affect the likelihood the party will trust.” It is also defined as the tendency to depend on something from others in different situations. This form of trust developed during childhood and also depends on belief. Blind trust can be mentioned

as an example of propensity to trust. At the extremes, some people are willing to grant total blind trust while others will not trust regardless of the circumstances that make it relevant to trust. (Mayer, Davis and Schoorman, 1995). The propensity to trust generally can be described as the generalized tendency of an individual to trust in others regardless of prior data issued by the particular party.

Disposition to trust comes primarily from trait psychology, which says that actions are molded by certain childhood-derived attributes that become more or less stable over time (McKnight and Chervany, 2002)

Knowledge-Based trust

Knowledge-based trust is based on the predictability of the other party; that is through knowing the other sufficiently well that their behavior is predictable. It requires past experiences that help to build trust in the potential buyers or sellers in e-commerce. If there is no prior experience, consumers might hesitate to incorporate in the Internet market that involves money and personal information. It requires an understanding of the organization that this individual dealing with and a deeper appreciation of what motivates their actions.

It is the ability to predict the behavior of the trustee based on prior performances. From the technological perspective, this form of trust can be described as the users' understanding of the technology based on having adopted and used that technology.

Institution-based trust

Institution-based trust is the sociological dimension of trust and defined this form of trust as behaviors are situation-ally constructed, due to this reason action is not determined by factors within the person but by the environment or situation. It refers to an individual's perceptions of the institutional environment—in this case, the Internet. Bachmann and Inkpen (2011) defined institutional-based trust as “the phenomenon that individuals or collective actors develop trust in the face of specific institutional arrangements in the business environment.” This form of trust allows individuals to gain trust in vendors without any prior knowledge about the service or company. It reflects the security one feels about the situation because of guarantee, safety net, or other structure (Shapiro, 1987).

Institution-based trust is the perception of an individual that there is some kind of favorable condition while purchasing a product or services online to assure trust. According to McKnight and Chervany (2002), favorable conditions refer to the legal, regulatory, business, and technical environment perceived to support success.

Bojang, Medvedev, and B. Spasov (2017) created a model that adopts security, privacy, familiarity, website, guaranty, customer care, control, and information as specific factors that determine customer trust. Components of the model and the support for its hypothesized links are shown in figure 2:

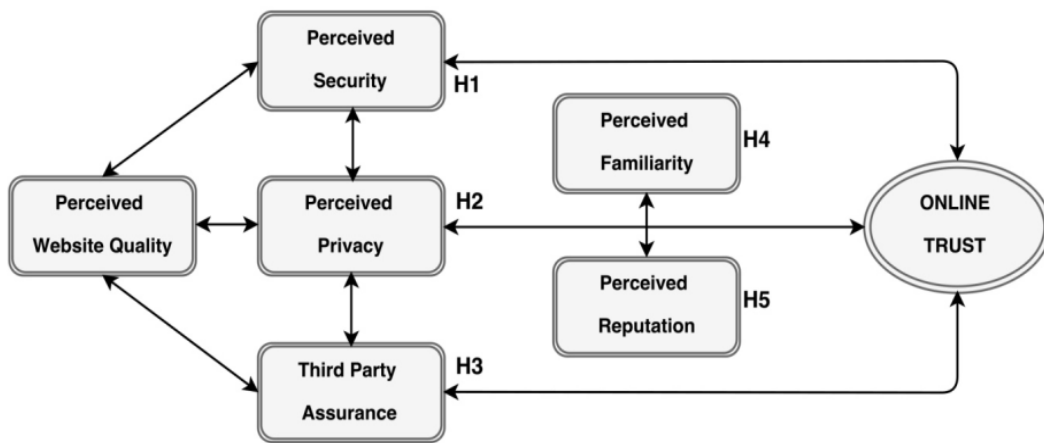


Figure 2: A hypothesized model of the determinants of consumer trust in B2C e-commerce (source: Bojang, Medvedev, Spasov, and Matvevnina, 2017)

Manafi, Hojabri, and Haj (2011) build a framework that consists of four factors which are “Para Social Presence”, “Presence”, “Perceived Ease of Use” and “Perceived Usefulness” which build trust in e-commerce. They have illustrated the framework shown in figure 3:

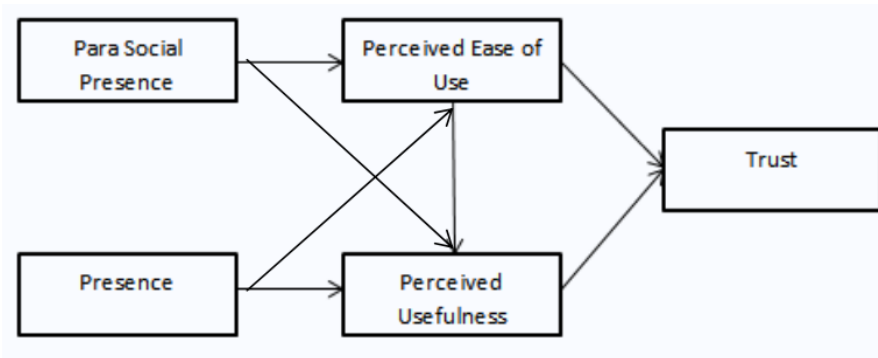


Figure 3: Conceptual Framework (Manafi, Hojabri, and Haj (2011))

Para-social presence factor is about a medium that facilitates the sense of understanding, connection, involvement, and interaction among the participating social entities. As the framework implies this factor has a relationship with perceived ease of use and perceived usefulness. And the other factor that affects perceived ease of use and perceived usefulness is the presence factor.

Fung and Lee (1999) have identified three antecedent factors that determine initial trust, which are information quality, web interface design, and company reputation (see figure 4). They discuss that the quality of information published on the Internet will directly affect the individual perception of the company. Based on the information that is delivered through the internet they have identified five attributes under these factors that contain accuracy, correctness, timeliness, and usefulness. The web interface design factor was discussed as the more attractive and user-friendly web interface may make people feel pleasant and easier to trust. According to these researches a good web interface design has to be easy to navigate, quickly to download, and reliable. For any company that relies on the internet the reputation is dependent on two sources: existing brand name and seal of approval. This researcher stated that usually, customers do not trust because they do not know whether the virtual company exists or not.

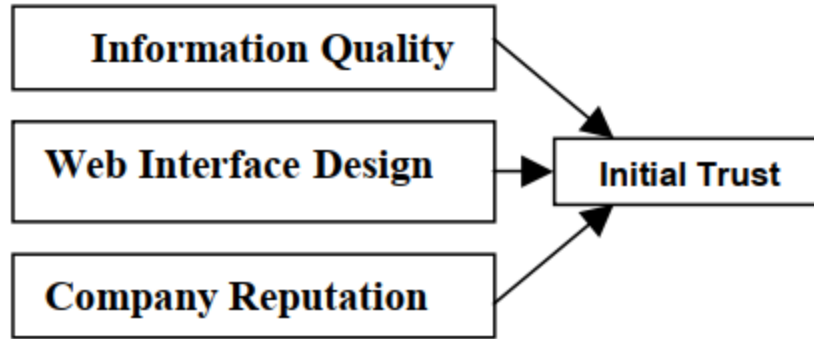


Figure 4: Factors that determine initial trust (Fung and Lee, 1999)

2.7. Related Works

Research conducted by Vega (2015) to determine possible factors that are most relevant and that affect the consumer's trust when using electronic commerce and what their perception is related to this. The study tries to identify possible issues like security, privacy, risk, experience using the Internet, and website quality were. The research design that was used for this study was nonexperimental- descriptive transactional. The questionnaire was developed and distributed to 200 respondents of both genders from the universe of graduate students, employees, and full-time faculty of a private university in Puerto Rico. The result showed that the factor of experience using the Internet has no significant difference exists in consumer trust towards electronic commerce unlike perceived security, perceived privacy, perceived risks, and the perception of website quality showed significant differences exist among consumers with high and low.

Hidayanto and Herbowo (2014) conducted research entitled "Determinant of customer trust on e-commerce and its impact to purchase and word of mouth intention: A case of Indonesia." This study aimed to identify factors that influence customer trust in e-commerce, to compare how important those factors in influencing customer trust, and to assess how important customer trust for purchase and word of mouth intention. To model the hypothesis, this study adopted two models: TOE (Technology, Organizational, and Environment) and TPE (Technology, Personal, and Environment). The research model identified seven factors that influence consumers' trust, which are Web quality, privacy and security, vendor image, institutional influence, deterrent, social influence, and knowledge and experience. The result of this research showed the most essential factors that influence customer trust in e-commerce are web quality and vendor image and it revealed that customer trust has a positive and significant impact on customer intention to

purchase and word of mouth intention. This research uses a quantitative study by conducting a survey and accordingly distributing questionnaires to e-commerce users, thus obtaining 151 respondents.

Bojang, Medvedev, Spasov, and Matvevnina (2017) conducted research aiming to investigate specific determinants or factors that influence consumer online trust in B2C e-commerce with a focus on consumers. The major factors that were identified through this study were perceived security, perceived privacy, perceived third party assurance, perceived reputation, perceived familiarity, and perceived website quality and their relationship with online trust in the B2C context. The findings of this empirical study indicate that perceived security, perceived reputation, and perceived privacy are critical factors that significantly influence online trust in B2C e-commerce in Yekaterinburg, Russia. The convenience sampling technique was adopted for the survey and the questionnaire was distributed to users of the internet.

Pennanen (2009) conducted research to build consumers' trust in e-commerce. The main objective of this study was to explore how consumers use different risk reduction strategies to generate trust in e-commerce and present a model based on the literature and empirical findings that illustrate consumer's trust formation process in e-commerce. This research discussed the three elements of consumers' trust in e-commerce which are, Institutional trust, Interpersonal Trust, and Dispositional trust. This study argues that only the disposition to trust appears before risk perceptions and trust in some other party (interpersonal) and trust in institutions (institutional) develop after the risk perception. The study adopted one of the four mechanisms that consumers use to cope with technological issues which are pre-acquisition confrontative strategies which were proposed by Mick and Fournier (1998). This mechanism contains pretest, buying heuristics, extended decision-making, and extended. From the researcher's point of view, the disposition to trust affects consumer risk perception before the overall trust is formed.

The result showed that pretest and buying heuristics are the methods of forming interpersonal trust. And also, informants used extended decision-making as a method to evaluate the trustworthiness of an e-vendor, thus, form interpersonal trust. Furthermore, it indicates that informants used extended decision-making as a method of maintenance and warranty contract. Warranty-strategy is linked to both interpersonal and institutional trust.

Research has been conducted in Malaysia entitled as E-hailing service in Malaysia: Current practice and future outlook by (Sahir, 2020). The major objectives of this study were to investigate the adoption of e-hailing services from the initial inception, issues in adoption, and the direction of e-hailing services within the context of Malaysia. Due to this, the major findings of the research were divided into three central themes. Which were:

Adoption of e-hailing services

What made e-hailing services desirable as an alternative mode of transportation in Malaysia, may be found within the state of existing public transportation systems, which was a poor public transport infrastructure, as well as the presence of better vehicles at lower fares compared to local taxis and public transport systems. And also this study stated that a report based on Uber revealed that the inaccessibility to parking spaces had also contributed to the uptake of e-hailing services instead of using personal vehicles.

Issues of e-hailing services

E-hailing companies need to reconsider both the business model used and the rates needed to be compensated in fulfilling the regulatory requirements. For example, the conventional taxi industry required drivers to have a vocational license of PSV before being allowed to drive. The process of obtaining those licenses would be troubling and costly for the average e-hailing drivers and those who drove part-time. As a result, some part-time drivers were terminated from the role, and 50% of the existing 200,000 drivers were expected to quit (Lai & Hendawy, 2019).

Future Outlook on E-hailing in Malaysia

Kar Man, Ahmad (2019) conducted research entitled as Evaluation of Service Quality Dimensions towards Customer's Satisfaction of Ride-Hailing Services in Kuala Lumpur, Malaysia. This paper aimed to investigate the relationship between the service quality and customers' satisfaction toward ride-hailing services in Malaysia. Specifically, this study attempts to evaluate the five service quality dimensions, namely tangibility, reliability, responsiveness, assurance, and empathy, towards customer satisfaction on ride-hailing services in Kuala Lumpur, Malaysia.

Also, this study aimed to raise the awareness from the ride-hailing service providers on the importance of service quality in improving the satisfaction level of the customer which will lead to further customer retention and better business performance.

The major finding shows that to be competitive, ride-hailing companies must maintain high service quality standards to ensure customer satisfaction. Evidence from the findings indicated that tangibility, reliability, and empathy significantly affect customer satisfaction, followed by responsiveness and assurance moderately affect customer satisfaction.

Author & Year	Title	Objective	Methodology	Key Finding
Vega, Jorge Aponte (2016)	Determiners of Consumer Trust towards Electronic Commerce: An Application to Puerto Rico	To know the most relevant factors that influence the trust in using electronic commerce in Puerto Rico and the perceptions related to it. To develop a conceptual framework that could determine the trust that consumers have in Puerto Rico when conducting transactions through electronic commerce	Nonexperimental-descriptive transactional	The results showed that significant differences exist among consumers with high and low perceived security, perceived privacy, perceived risks, and the perception of website quality. However, the factor of experience using the Internet showed that no significant difference exists in consumer trust towards electronic commerce.
Hidayanto, Achmad Nizar and Herbowo, Arfian (2014)	Determinant of Customer Trust on E-Commerce and Its Impact to Purchase and Word of Mouth Intention: A Case of Indonesia	To identify factors that influence customer trust in e-commerce, to compare how important those factors in influencing customer trust and to assess how important customer trust for purchase and word of mouth intention	A quantitative study by conducting a survey and accordingly distributing questionnaires to e-commerce users	The study showed the most essential factors that influence customer trust in e-commerce is web quality and vendor image.

Bojang, Ismaila; Medvedev, Maxim A.; Spasov, Kamen B. and Matvevnina, Arina I. (2017)	Determinants of trust in B2C e- commerce and their relationship with consumer online trust	To investigate specific determinants or factors that influence consumer online trust in the B2C e-commerce with a focus on consumers.	Convenience Sampling Technique	The result showed that perceived security, perceived reputation, and perceived privacy are critical factors that significantly influence online trust in B2C e-commerce in Yekaterinburg, Russia
Pennanen, Kyösti (2009)	How Consumers Build Trust in E- Commerce: Towards a Trust Formation Model	To explore how consumers, use different risk reduction strategies to generate trust in e-commerce and present a model based on the literature and empirical findings that illustrate consumer's trust formation process in e-commerce.	A qualitative method	Pretest and buying heuristics are the methods of forming an interpersonal trust. And also, informants used extended decision-making as a method to evaluate the trustworthiness of an e-vendor, thus, form an interpersonal trust. Furthermore, it indicates that informants used extended decision- making as a method of maintenance and warranty contract. Warranty- strategy is linked to both interpersonal and institutional trust
Singh, Nagender ; Yadav, Manisha and Sahu, Omprakash (2016)	Consumer acceptance of apparel	To identify the key factors related to acceptance of e-commerce for apparel products in Ethiopia	Quantitative and Qualitative	The results revealed that the inability to physically interact with an item, fear

	e-commerce– Ethiopia			of risk security and privacy and lack of e-commerce, infrastructure is the main barriers that prevent the consumers from online apparel product shopping.
Jais, Ahmad Sahir and Marzuki, Azizan (2020)	E-hailing services in Malaysia: Current Practice and Future Outlook	The objectives of this study were to investigate the adoption of e-hailing services from the initial inception, issues in adoption and the direction of e-hailing services within the context of Malaysia.	A qualitative approach	The discussion on e-hailing services in Malaysia was divided into three central themes, which were the Adoption of E-Hailing Services, Issues on E-hailing Services, and a Future Outlook on E-Hailing Services.
Sahir, Marzuki (2020)	Evaluation of Service Quality Dimensions towards Customer's Satisfaction of Ride-Hailing Services in Kuala Lumpur, Malaysia	To analyze customer satisfaction of the services provided by analyzing the five service quality dimensions; tangibility, empathy, reliability, assurance, and responsiveness.	A quantitative and explanatory study	To be competitive, ride-hailing companies must maintain high service quality standards to ensure customer satisfaction. Evidence from the findings indicated that tangibility, reliability, and empathy significantly affect customer satisfaction, followed by responsiveness and assurance moderately affect customer satisfaction.

Table 2: Summary of related works

Summary

From the literature review discussed in the above section, a lot of factors have been identified by researchers. The concept of trust has been heterogeneously defined by many authors in the fields of social psychology, sociology, management, marketing, and information systems. Many authors stated that trust is multidimensional. The definition of trust is more like a specific situation. But researchers agree on one definition of trust which was proposed by Mayer (1995), defined trust as a willingness of a party to be vulnerable to the actions of another party based on the expectation that the other party will perform a particular action important to the vulnerable party, irrespective of the vulnerable party's ability to monitor or control that other party. As we discussed on the previous section factors of consumer trust have been studied in different cases but there are limited researches conducted that can build customers' trust in e-commerce. The above-mentioned studies didn't attempt to contribute building customers trust toward e-hailing service. Indeed, these studies have mentioned a lack of trust as a barrier to e-commerce adoption. For instance Hsu (2008) identified the dominant factors to build customers trust toward online environment but this study didn't identify the requirement to address the factors in order to build customers trust toward e-hailing services. So, this study is intended to investigate the major and relevant factors that have been studied in previous work and propose a framework that contributes to building trust toward e-commerce specifically in the electronic transportation system. The research framework was adopted from Hsu (2008) research. The model contains eight factors and these factors are examined under two trust-building elements which are: Knowledge-based trust and Institutional based trust.

Chapter Three

Research Methodology

3.1.Overview

The research aimed to investigate dominant factors that established customer trust, to adopt and construct a trust-building framework toward e-commerce in Ethiopia.

This chapter presents the methodology that is used to achieve the objective of the study. First, the general research approach is described. Next, the research model along with the constructs is discussed. Then, the population of the study, sampling techniques, sample size, data collection instrument, and data collection procedure are discussed. Finally, data analysis and presentation method is presented along with the quality of the research.

3.2.General Research Strategy

Among different types of research strategy, this study performed both survey and a case study which contains the quantitative approach. A case study is a holistic inquiry that investigates a contemporary phenomenon within its natural setting. The case study was incorporated into this research first by selecting the e-hailing services as the case area of the research; then a conceptual framework was built based on literature review as a base for data collection. Finally the collected data were described and analyzed using statistical analysis through SPSS with the help of excel. The survey strategy was obtained using a questionnaire that enables the collection of standardized data, which makes it easier to comparison by expressing the data in numbers and analyzed it quantitatively. Due to this both survey and case study strategy were considered suitable for this study.

Quantitative research involves a systematic experimental analysis of observable phenomenon via statistical, mathematical, or computational techniques in numerical form such as statistics, percentages, etc. whereas to have a better understanding and detailed information, as it provides respondents to answer or explain their feelings without fear. This research approach is used to quantify the problem by way of generating numerical data or data that can be transformed into useable statistics. To quantify attitudes, opinions, behaviors, and other defined variables and generalize results from a larger sample population.

3.3. Conceptual Framework and Hypothesis Development

The main purpose of the conceptual framework was to map out the actions required in order to build consumers' trust toward e-hailing services. To build this conceptual framework, researches, empirical works, and other related materials were reviewed and isolated important variables and discussed how these variables are related to e-hailing services. The brief steps of the conceptual framework development are discussed as follows:

The first thing that was done in the framework development was to identify the most relevant determinant variables/factors to E-commerce Trust. The framework adopts Security, Privacy, Familiarity, Reputation, Website/ App Quality, customer service, and Assurance as the specific factors that determine customers' trust. As described in the previous section, the trusting building model was adopted from Hsu (2008) and the framework was customized based on the identified factors. Due to this reason, propensity to trust was removed from the framework. Regarding the literature review and identified variables, the following framework can be suggested as a new framework.

This study adopted the framework from Hsu (2008) research, which includes three types of consumer trust building blocks. The trust-building blocks contain Personality-based trust (propensity to trust), Knowledge-based and institutional-based trust. Mayer, Davis, and Schoorman (1995) defined propensity to trust as "a stable within party factor that will affect the likelihood the party will trust." This form of trust developed during childhood and also depends on belief. Knowledge-based trust is based on the predictability of the other party; that is, through knowing the other sufficiently well that their behavior is predictable, which requires prior experience. Institutional-based trust refers to an individual's perceptions of the institutional environment, in this case, the E-hailing service. For this research, the identified factors are classified into Institutional and Knowledge-based trust. This is due to the fact that personality-based trust (propensity to trust) deals with individuals' beliefs and feelings. Since its prior stage, it was eliminated from the framework.

The variables used to construct the frameworks have unidirectional interconnected flows. These are: Familiarity, Brand, Reputation, Website/App Quality, and customer service, Perceived Security, Perceived Privacy and Assurance grouped into two trust-building components as Knowledge-based and Institutional-based trust. The detail of each factor has been discussed in

chapter three. The following section discuss about the formation of the hypothesis based on literature review.

A. Knowledge-based Trust: this component aims to assess customers' first-hand or second-hand knowledge of the e-hailing service under five factors. For instance, first-hand knowledge requires familiarity with e-hailing services. On the second-hand knowledge, it includes brand, reputation, website\app quality, and customer services.

Familiarity

Familiarity reduces uncertainty by establishing a structure (Hoffman & Novak, 1999). Gefen (2000) stated two reasons that familiarity can build trust. The first reason is that trust in another person or organization is built when the other person or organization behaves in accordance with one's own favorable expectations of them. The second reason is that familiarity not only provides a framework for future expectations but also lets people create concrete ideas of what to expect based on previous interactions.

Hypothesis 1 (H1): The perceived familiarity with an e-hailing service platform will influence customer trust in the service

Brand

According to Lien (2015), brand image is an important antecedent in determining trust, reflecting that an attractive and valuable brand increases consumer trust in the product/service associated with the brand. Customers are more likely to prefer brands they believe to be trustworthy and reliable. Due to this it is expected that the relationship between brand and customer trust toward e-hailing service will also be positive in this case. Therefore, the following hypothesis is proposed

Hypothesis 2 (H2): The perceived brand with an e-hailing service provider will influence customer trust in that vendor.

Reputation

Reputation is conceptualized as the consumer's perception of as e-hailing service companies' reputation. When customers have no experience with a special e-vendor, reputation may be the key to absorb customers (Broutsou & Fitsilis, 2012). When a firm is perceived to have a good reputation the customers trust can increase significantly. Perceived reputation is "the degree in which people believe in the company's honesty and concern towards its customers" (Koufaris &

Hampton-Sosa, 2004). It is expected that the relationship between perceived reputation and customer trust toward e-hailing service will also be positive in this case. Therefore, the following hypothesis is proposed

Hypothesis 3 (H3): The perceived reputation of e-hailing service providers will influence customers' online trust in that vendor.

Website/ Application Quality

Web/ application quality design plays important role to attract, gain and retain customers. Low quality of website could impact on customer lost, cost escalation and profit reduction. Therefore, it is important to know how web quality impact on customer trust of the website, that eventually determines purchasing decision (Hidayanto, Herbowo, & Sucahyo, 2014). If customers feel the website has high quality, then they tend to have high trust to seller. Therefore, the following hypothesis is proposed

Hypothesis 4 (H4): The perceived website/ Application quality of the e-hailing service provider's site will influence consumer trust in e-hailing service.

Customer service

The process by which an organization delivers its services or products allows the consumer to access them in the most efficient and cost effective way and so meet the consumer's expectations (Hsu, 2008). Its important to provide different ways for the customers to get in touch with the company, to promote intractivity which helps strength the customers sense of power; gaining the power allows the customers to build trust (Gustavsson & Johansson, 2006). Therefore, the following hypothesis is proposed.

Hypothesis 5 (H5): The perceived customer service with an online vendor will influence customer trust in an e-hailing service provider.

B. Institutional Based Trust: aims to assess customers' beliefs about impersonal structures and favorable conditions, in which they feel safe, assured, and comfortable with the prospect of e-hailing services. This trust-building component was assessed under Perceived security, Perceived Privacy, and Assurance.

Perceived security

Security refers to the customer perception that internet vendor will meet security requirement such as authentication, integrity, encryption and non-repudiation (Yáñez, 2017). Customers perceive the security protection during online transaction depends on the understanding about security level implemented by the service providers. When customers find security features (for example security policy, disclaimer, security guarantees, etc.) and protection mechanism on seller's website, they could know and perceive that there is an intention of seller to safeguard their information during online transaction (Wasfi, Zeglat, & Al-zawahreh, 2012). Customer perception about security protection increases customer trust to the vendor and also decreases the risks perceived by customers to make a transaction (Hidayanto, Herbowo, & Sucahyo, 2014). Therefore, the following hypothesis is proposed.

Hypothesis 6 (H6): The perceived Security of online transactions will influence consumers' trust in e-hailing services.

Perceived Privacy

Privacy refers to customer perception related to possibility of the seller to protect and safeguard confidential information of the customers during the electronic transaction made (Bachmann & Inkpen, n.d.). It involves the protection of personal information – not sharing consumers' personal information with other sites, protecting anonymity, and providing informed consent (Kenneth & Zaipuna, 2017). Varies information gathered using the e-hailing service provider platforms. Due to this companies are granted to access the personal information that is registered by the clients. Privacy includes aspects such as the unauthorized distribution or use of personal information (Vega, 2015). Therefore, the following hypothesis is proposed.

Hypothesis 7 (H7): The perceived privacy of online transaction will influence consumer trust in e-hailing services

Third party assurance

The independent nature of third-party certification has been developed by the e-commerce industry in order to help consumers feel more trusting when conducting business with websites (Hsu, 2008). Third-party assurance is one of the mechanisms that a company that indicates its trustworthiness.

The customer's choice of vendors is affected by assurance seals, which act as a means to guarantee consumers' private information which helps to build initial trust of the customer toward the e-vendors.

Hypothesis 8 (H8): Third-party assurance of online purchases and transactions will influence consumer online trust.

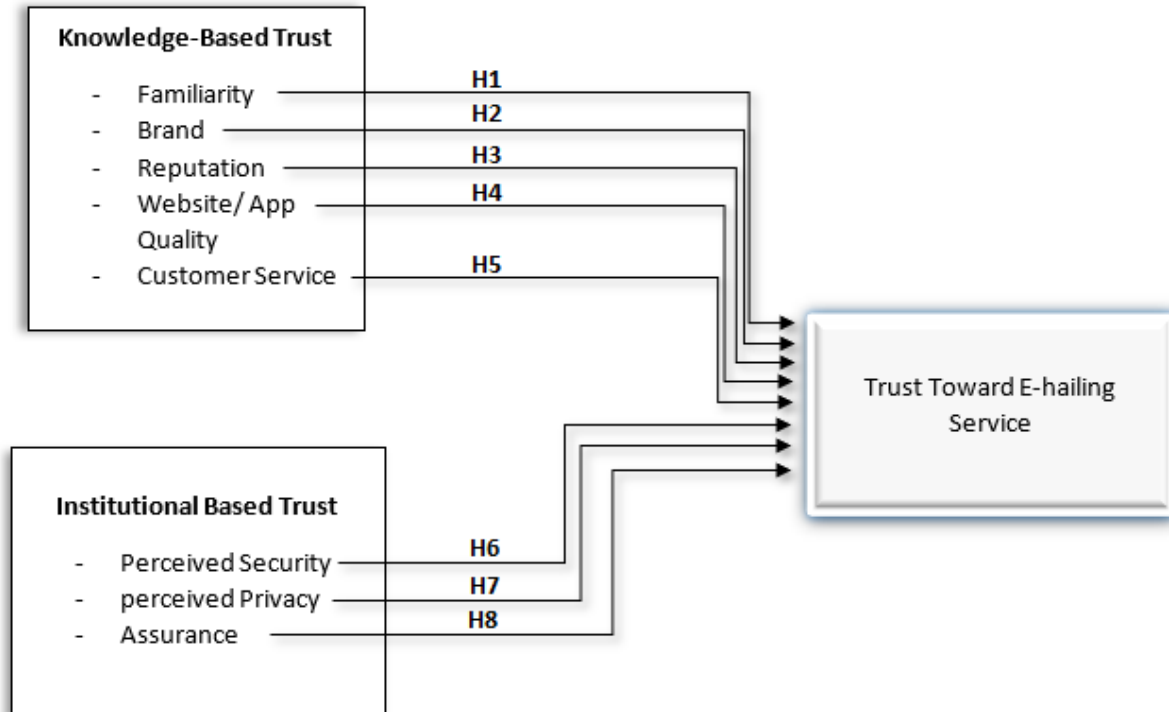


Figure 5: Conceptual Framework of the research (Adopted from Hsu, 2008)

3.4. Population and Sampling

Research design is the plan or strategy of shaping the research. A descriptive case study design and quantitative approaches were employed to gather information from study participants.

3.4.1. Study population

The target population was any e-hailing service users who are residential in Addis Ababa. The customers were occasionally or regularly users of e-hailing services it might be RIDE, ZayRide, or another e-hailing services platform.

In the research, as the number of customers could not be determined and the population of the study was considered infinite. Addis Ababa was the only target location where the e-hailing services were available to obtain the respondents' data.

3.4.2. Sampling technique and sample size

The research adopted a survey strategy using a questionnaire to investigate which factors are important for building consumer trust toward e-commerce in the electronic transportation system. Sampling is very important that makes research more accurate and economical. Selecting participants to determine the population to which we may generalize the research findings. The sampling process involved selecting a sample of the population to investigate the study. Probability and non-probability sampling are common types of sampling (Sekaran and Bougie, 2016). In probability sampling, each element in the population has a known nonzero chance of being selected through the use of a random selection procedure (Battaglia, 2008). For the purpose of this research non-probability sampling were selected specifically convenience sampling. Since subjective methods are used to decide which elements are included in the sample (Battaglia, 2008). When subjects are chose because of the close proximity to a researcher, that is, the ones that are easier for the researcher to access, the researcher is making a convenience sampling (Etikan, 2016). Non-probability-based samples often require much less time and effort, and thus usually are less costly to generate. According to Fricker (n.d) research on sampling method for online survey, non-probability-based (Convenience) samples can be useful for research in other ways. For example, early in the course of research, responses from a convenience sample might be useful in developing hypotheses. Responses from convenience samples might also be useful for identifying issues and defining ranges of alternatives (Fricker, n.d).

The following sampling formula for infinite population will be used to come up with the sample size

$$n_0 = \frac{Z^2 pq}{e^2}$$

Where, n_0 - Sample size

Z- z value at specified confidence interval, e.g. z=1.96 at 95% CI

p- Degree of variability (0.5)

q- Q=1-p (0.5)

e- Desired level of precision ($\pm 5\%$)

To illustrate, It was assumed there was a large population that we did not know the variability in the proportion that adopted the practice; therefore, we assumed p=.5 (maximum variability). Furthermore, it was desired to have a 95% confidence level and $\pm 5\%$ precision

$$n_0 = \frac{Z^2 pq}{e^2} = \frac{(1.96)^2 (0.5) (0.5)}{(0.05)^2} = 384.16 \approx 384$$

3.5.Data Source and Data Collection method

To achieve the research aims, it is essential to obtain sufficient and relevant data through appropriate research methods.

Two methods of data collection were selected for this study: questionnaires, and a literature review, and a document review. For quantitative analysis, the data for this study collected with a survey questionnaire that is one of the most widely used data collection techniques within the survey strategy. The survey was conducted online in the form of a questionnaire. The questionnaire was distributed to various e-hailing service users and distributed through e-mail, telegram, and other social media. For each respondent, the same set of questions were provided for an efficient way to collect responses from the sample size.

This study used two data collection methods: Primary data collection and secondary data collection. As mentioned earlier in this section the primary data was collected online using Google form for the survey questionnaires. The purpose of the questionnaire was to investigate which factors are more likely determines consumers' trust in e-commerce specifically in e-hailing services. The responses were assessed using SPSS one of the well-known statistical analysis techniques and with the help of excel. The secondary data was collected through literature and

empirical work to grasp basic factors of customers' trust in e-commerce and to support the data collected through the questionnaire.

3.5.1. Primary Data

Primary data refers to the first hand data gathered by the researcher from their original sources through various methods such as observation, interviewing, mailing, questionnaires, focus group etc. (Oluwatosin, 2017). Therefore, the primary data for this study was collected from E-hailing service customers using questionnaire.

3.5.1.1. Questionnaires

The questionnaires aimed to investigate the factors that determine customer trust. The items of the questionnaire were adopted from Gustavsson and Johansson's (2006) research that were relevant to measure the identified constructs depicted in the research model. It contained only close-ended questions. Questionnaires were prepared after extensive review of literatures in this field, those questions in the questionnaires focused on the research problems objective and questions rose in the statement of the problem.

First, the items were selected from the literature that is relevant to depict the constructed framework. Minor customizations were made to some of the questions to reflect the objective of the study. Secondly, a pilot study was conducted with 10% of the sample size. The objective of the pilot study was to test whether the survey instrument provided consistent and accurate information. All the necessary amendments were performed based on the pilot study result.

The questionnaires were distributed via the internet. It consists of a set of questions that reflects the main topics of the research. This approach ensures that each participant reads and answers the same set of questions. This helps and ensures consistency and precision in the wording of the questions (Denscombe, 2003). The questionnaire development discussed as follows:

Questionnaire Design

The questionnaire included a cover letter as an introduction to the respondent. This was needed to give the respondent a briefing of the research aim and objectives and to make respondents aware of the author's guarantee of the confidentiality of the responses. The questionnaire has four sections: section one contains the background of the respondents' gender, age and education levels.

Section two contains questions requesting the respondents to rate their level of agreement under few conditions toward their general level of Trust Toward E-hailing service. Section three deals with the factor under knowledge-based trust component which contains Familiarity, Reputation, Brand, Web/ Application quality and customer services. And section four deals with the factors under Institutional-Based trust component which contains Perceived security, Perceived privacy and third party assurance. The respondents were able to rate the level of importance of each factors to build their trust toward e-hailing services. In this study, the 5 point (Not Important (1), Slightly Important (2), Important (3) and Very important (4), Don't Know (5)) Likert Scale were used.

To keep the questionnaire form short, only those items crucial to the research objectives were included. The sections in the questionnaires are as follows:

- *Section 1- Personal Details:* covered the respondents' gender, age, and educational qualifications.
- *Section 2- Trust Toward E-hailing service* – to assess the general perception of trust toward e-hailing service from the consumers' perspective.
- *Section 3- knowledge-based trust:* to investigate consumer's perceptions based on their experience with the e-hailing platform.
- *Section 4-Institutional-Based trust:* to investigate consumer's perception about the impersonal structure and favorable conditions toward the e-vendor.

3.5.2. Secondary Data

According to Oluwatosin (2017) secondary data explained as data collected by someone else earlier. It is just the analysis and interpretation of the primary data. The secondary sources consist of readily available list of items that are already compiled statistical statements and reports. The data used by researchers for their study Government publications, websites, books, journal articles, internal records etc. (Oluwatosin, 2017). However, on this study the researcher collected those secondary data from journal articles, and related works.

3.6.Pilot Study

Before proceeding to the actual data collection, the questionnaire was pilot tested by 10% of the total population. The pilot study participants were chosen by using convenience sampling. The

data collected from the pilot study was analyzed and assessed to ensure the outcome addresses the research questions that were stated in the first section of this study and meet the stated objectives.

Moreover, after revising the collected data, certain questions were refined to prevent ambiguity and misunderstanding. According to the pilot study few respondents were not familiar with the term e-commerce and E-hailing so that detailed explanation was added to the actual questionnaires as shown in Appendix B. on the first version of the questionnaire the set of questions was not classified according to the factors and this makes it a bit complicated to analyze the data. Due to this on the actual questionnaire; each statement was classified according to their representative factors as well redundant questions were eliminated.

3.7.Data Analysis Technique

According to Lecompte (1999), data analysis is the process of reducing large amounts of collected data to make sense of them. Patton (1987) indicates that three things occur during analysis: Data is organized, data are reduced through summarization and categorization, and pattern and theme are identified and linked. The purpose of analyzing data is to obtain usable and useful from the collected information. The analysis, irrespective of whether the data is qualitative or quantitative, may: describe and summarize the data, identify relationships between variables, compare variables, identify the difference between variables, and forecast outcomes.

3.7.1. Quantitative Data Analysis

For this research, data is collected, presented, analyzed, and interpreted by employing different techniques to attain the objectives of the study. The data analysis is done after collecting all the data from the respondents. After data collection, each questionnaire was checked visually for completeness and code at the right margin of the questionnaire. The data was collected from the respondent checked and inserted into a statistical package for social sciences (SPSS) software which was used to analyze the responses from the collected data.

Descriptive statistics (such as frequency, percentage, and mean) analysis was conducted on the demographics data.

All the data collected for this study were obtained through a survey administered to measure specific variables that were identified for this study. The constructs under investigation include

Trust toward e-hailing service, security, privacy, familiarity, brand, reputation, customer service, website/ application quality, and Assurance. The constructs were measured using multiple items designed by the researcher for this study. The constructs were selected after a review of the previous literature. The items were measured using a five-point Likert scale coding as Not Important (1), Slightly Important (2), Important (3) and Very important (4), Don't Know (5). Meanwhile, the researcher uses a combination of two sources of data collection for this research which includes primary and secondary sources. The questionnaires were developed and administered to some selected respondents using convenience sampling techniques.

3.8. Quality of the research

3.9. Reliability and Validity of the Research

Reliability concerns the extent to which a measurement of a phenomenon provides stable and consistent result (Carmines and Zeller, 1979). Reliability is also concerned with repeatability. For example, a scale or test is said to be reliable if repeat measurements made by it under constant conditions will give the same result (Moser and Kalton, 1989). According to Zikmund, Griffin, & Babin (2013) scales with coefficient alpha between 0.6 and 0.7 indicate fair reliability, a Cronbach's alpha score of 0.70 or higher are considered as adequate to determine reliability. To assess reliability, the Cronbach alpha was calculated for each of the nine identified factors, as shown below in table 3.

Factors	Items	Cronbach's Alpha
Familiarity	2	0.753
Reputation	3	0.634
Brand	3	0.673
Website/App Quality	5	0.833
Customer Service	2	0.712
Perceived Security	3	0.674
Perceived Privacy	2	0.618
Assurance	3	0.763
Trust	4	0.701

Table 3: Cronbach's Alpha

As presented in table 3, the reliability of Familiarity (0.753), Web/App quality (0.833), Customer Service (0.712), Assurance (0.763), and Trust (0.701) have a value of greater than 0.7 each which

indicates the internal consistency of the survey instrument with respect to these variables. However the reliability of Reputation (0.634), Brand (0.673), Perceived Security (0.674), and Perceived Privacy (0.618) shows fair reliability in the standard questionnaire which might needs further improvement in future studies.

Validity explains how well the collected data covers the actual area of investigation (Ghauri and Gronhaug, 2005). Validity means “measure what is intended to be measured” (Field, 2005). The questionnaire was developed by the researcher and tested using pre-testing and necessary corrections and amendments were considered to check the validity of the questioner.

Chapter Four

Results and Findings

4.1. Overview

Based on the research strategy discussed in the previous section, a survey was conducted by using an online questionnaire to collect the primary data. The questionnaire was prepared aimed to investigate the specific factors that determine consumer trust in e-commerce in the case of E-hailing service in Ethiopia. These responses were collected by using Google Form then the respondent's data were exported in an excel file for further analysis. The data were cleaned and presented in the excel file then the data was analyzed by using the software program SPSS version 20.

Response Rate

While conducting the online survey the questionnaires tried to reach out around 384 individuals who are both internet and e-hailing service users. Since the whole questions were mandatory no questionnaires were returned uncompleted. Due to this, the returned questionnaire is 384 with a response rate of 100%.

4.2. Demographic profile of users

This section of the questionnaire includes both the personal and professional characteristics of the respondents. Below describes the respondents' general characteristics of Gender, age, educational qualification, and work experience

GENDER				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	207	53.9	53.9
	Female	177	46.1	100.0
	Total	384	100.0	100.0

Table 4: Respondents Gender

Gender

The above table 4 shows the distribution of male and female respondents in the survey. 53.9% of the respondents were male and the remaining 46.1% were females. As the result implies the

majority of the respondents are male and it is assumed that it might be because the male respondents were more willing to fill out the questionnaire.

Age

This section includes the distribution of respondents according to different age groups. As the table implies 60.4% of the total amount of the respondents were in the age group of 18-29, 26.3% of the respondents were in the group of 30-39, 9.6% of the respondents were in the group of 40-49 on the other hand only 3.6% of the respondents were in the group of 50+. Due to this, it was considered as the youngest group is more likely willing to participate to respond to the questionnaire.

AGE				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 18-29	232	60.4	60.4	60.4
30-39	101	26.3	26.3	86.7
40-49	37	9.6	9.6	96.4
50+	14	3.6	3.6	100.0
Total	384	100.0	100.0	

Table 5: Respondents Age group

Education Qualification

This section includes the education qualification of the respondents. As the table implies from the 384-total amount of respondents the majority of the respondents were Bachelor’s degree holders (62.8%). The rest 19%, 12.2%, and 2.3% of the respondents are Master’s Degree, school certification, and Ph.D. holders respectively.

Education qualification				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid PhD	9	2.3	2.3	2.3
Master's Degree	73	19.0	19.0	21.4
Bachelor's degree	241	62.8	62.8	84.1
School Certification	47	12.2	12.2	96.4
Others	14	3.6	3.6	100.0
Total	384	100.0	100.0	

Table 6: Respondents Education qualification

4.3. Correlation Matrix- Pearson Correlation

Pearson's correlation analysis is used to indicate the strength and direction of the relationship between two variables. In this study, this analysis is chosen to measure the co-variation between the eight independent variables and the dependent variable which is trust toward e-hailing service in Addis Ababa, Ethiopia. The correlation coefficient determines how the value of one variable changes when the value of another variable changes. Correlation coefficient value range from 0.10 to 0.29 is deemed to be weak, from 0.30 to 0.49 is regarded as a medium, and from 0.50 to 1.0 is believed to be strong (Cohen, 1988). A (Pearson) correlation is a number between -1 and +1 that indicates to what extent two quantitative variables are linearly related.

- A **correlation of -1** indicates a perfect linear descending relation: *higher* scores on one variable imply *lower* scores on the other variable.
- A **correlation of 0** means there's no linear relationship between two variables whatsoever.
- A **correlation of 1** indicates a perfect ascending linear relation: higher scores on one variable are associated with higher scores on the other variable.

		Correlations								
		FAM	REP	BRA	WAQ	CS	SEC	PRI	ASSU	TRU
FAM	Pearson Correlation	1								
	Sig. (2-tailed)									
	N	384								
REP	Pearson Correlation	.231**	1							
	Sig. (2-tailed)	.000								
	N	384	384							
BRA	Pearson Correlation	.256**	.246**	1						
	Sig. (2-tailed)	.000	.000							
	N	384	384	384						
WAQ	Pearson Correlation	.182**	.226**	.190**	1					
	Sig. (2-tailed)	.000	.000	.000						
	N	384	384	384	384					
CS	Pearson Correlation	.422**	.397**	.306**	.352**	1				
	Sig. (2-tailed)	.000	.000	.000	.000					
	N	384	384	384	384	384				
SEC	Pearson Correlation	.348**	.333**	.299**	.252**	.525**	1			
	Sig. (2-tailed)	.000	.000	.000	.000	.000				
	N	384	384	384	384	384	384			
PRI	Pearson Correlation	.284**	.212**	.186**	.108*	.338**	.308**	1		
	Sig. (2-tailed)	.000	.000	.000	.034	.000	.000			
	N	384	384	384	384	384	384	384		
ASSU	Pearson Correlation	.270**	.295**	.241**	.261**	.375**	.330**	.264**	1	
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		
	N	384	384	384	384	384	384	384	384	
TRU	Pearson Correlation	.501**	.512**	.468**	.457**	.700**	.655**	.427**	.553**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	
	N	384	384	384	384	384	384	384	384	384

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

* . Correlation is significant at the 0.05 level (2-tailed).

Table 7: Correlation Statistics of Independent and Dependent Variables

Source: Own Survey; 2020

As per the table above, the coefficient shows that the eight determinants measuring consumers' trust toward e-hailing service were all positively related with Trust toward e-hailing service within the range of 0.427-0.700, all were significant at $p < 0.01$ level.

The independent variables Customer Service, perceived Security, Assurance, Reputation, and Familiarity shows the strong relations (0.700, 0.655, 0.553, 0.512, and 0.501 respectively). While the other three independent variables Brand, Web/ Application Quality, and perceived privacy show a Medium level of positive relation (i.e. 0.468, 0.457, and 0.427 respectively) with trust toward e-hailing service.

So according to Cohen (1988) Customer Service, perceived Security, Assurance, Reputation, and Familiarity have a strong relationship with the dependent variable. On the other hand, the remaining three factors have a medium level of relationship with the dependent variables.

4.4. Multiple Linear Regression Results

4.4.1. Multicollinearity Test

Multicollinearity occurs when independent variables are correlated. The Variance Inflation Factor (VIF) is a tool to measure the impact of collinearity among the variables and also quantify how much the variance is inflated. If the VIF is equal to 1 then the factors are not correlated at all if the VIF is between 1 and 5 the factors are moderately related but if VIF is more than 5 the factors are highly correlated, which may be problematic. On the other hand, tolerance is the reciprocal of VIF. As the Multicollinearity result shows in table 8, Tolerance and VIF values are given. The VIF result for the factors is between 1.184 – 1.78 which shows a moderate relationship among the factors. Therefore, this also suggests that the assumption of multicollinearity was not violated.

	Collinearity Statistics	
	Tolerance	VIF
FAM	0.768	1.302
REP	0.789	1.268
BRA	0.844	1.184
WAQ	0.844	1.185
CS	0.562	1.780
SEC	0.658	1.519
PRI	0.828	1.208
ASSU	0.780	1.283

Table 8: Multicollinearity Result

Source: Own Survey; 2020

4.3.1. Regression Analysis

Regressions fit a predictive model to data and use that model to predict the values of the dependent variable from one or more independent variables (Andy, 2005). Linear regression estimates the coefficients of the linear equation, involving one or more independent variables that best predict the value of the dependent variable.

To see the Determinant Factors that customers trust toward e-hailing services in Ethiopia, linear regression analysis was employed. Trust toward e-hailing service used as the dependent variable while the underlying Determinants were used as the independent variables.

Accordingly, ASSU, WAQ, PRI, BRA, REP, FAM, SEC, CS are used as Predictors TRU as dependent variable. Table 9 below provides the results of the multiple regression analysis.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.878 ^a	.771	.766	1.818674	2.125

Table 9: Linear Regression Model

Source: Own Survey; 2020

The model summary indicates independent variables have strong relationships with dependent variables. R indicates how strong the independent variables as the whole related to the dependent variable, from the table it is possible to see (.878) on a scale from 0 to 1. R² indicates the degree of independent variables variation explaining the dependent variable (Albert, 2001). Based on this, the model coefficient of determination or R² obtained indicates that 77.1% of the variation in the measure function (Trust toward e-hailing service) can be explained by Familiarity, Reputation, Brand, Web/ Application Quality, Customer Service, Perceived Security, Perceived Privacy and Assurance. The remaining 22.9% of variations on Consumers' trust toward e-hailing service in Ethiopia are explained by other variables out of this model or variables which are not incorporated in this study.

To test the hypothesis of no linear relationship between the predictor and dependent variables, i.e., R-square = 0, the Analysis of Variance (ANOVA) is used. The table below presents the F statistics to test how well the regression model fits the data.

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	261.200	8	32.650	157.940	.000 ^b
	Residual	77.521	375	.207		
	Total	338.721	383			

Table 10: ANOVA

Source: Own Survey; 2020

The ANOVA result in the above table shows that there is a linear relationship between the dependent variable (Trust toward E-hailing Service) and the set of independent variables. This means the model is adequate in explaining the relationship between independent and dependent

variables. This is because the overall P-value of the model ($p = 0.000 < 0.01$) shows the model is adequate at 1% and level of significance.

This study intends to identify the most contributing independent variable in the prediction of the dependent variable. Due to that on table 11 the coefficients between independent variable and dependent variable was computed.

Coefficients						
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	-12.600	.927		-13.599	.000
	FAM	.217	.048	.126	4.479	.000
	REP	.224	.042	.148	5.333	.000
	BRA	.275	.049	.152	5.656	.000
	WAQ	.160	.027	.160	5.956	.000
	CS	.460	.062	.246	7.476	.000
	SEC	.381	.046	.250	8.220	.000
	PRI	.329	.087	.102	3.769	.000
	ASSU	.296	.043	.194	6.948	.000

Table 11: Regression Coefficients

Source: Own Survey; 2020

The factors were investigated via a standardized Beta coefficient to compare the strength of the effect of each independent variable to the dependent variable. The average amount of change in the dependent variable is caused by a unit change in the independent variable explained by the regression coefficient. The larger value of the Beta coefficient an independent variable has brought more support to the independent variable as the more important determinant in predicting the dependent variable.

In the table 11 above shows the standardized coefficients for the eight independent variables. The significance levels are .000 for all variable which are all less than 0.05. This indicates a significant relationship between the independent variables and the dependent one. The Beta value for predictor variables, Perceived security, was 0.250 which implies that this predictor variable made

strong positive and statistically significant influence in predicting the dependent variable (trust toward e-hailing service) when the variance explained by all other variables in the model is controlled for. The variable customers service beta value was 0.246 that shows the second strong positive and statistically significant in predicting the independent variable. On the third level, the variable Third party assurance beta values was 0.194, which shows the third positive and statistically significant in predicting trust toward e-hailing services. Website/ Application quality were on the fourth level that have strong positive and statistically significant predicting the dependent variable with 0.160 beta value. The variable brand beta value was 0.152 and made fifth strong positive and statistically significant determining the dependent variable. On the fifth level, the variable reputation was 0.148 which made it strong positive and statistically significant determining the dependent variable. Familiarity were on the seventh level that have strong positive and statistically significant predicting the dependent variable with 0.126 beta value. In addition perceived privacy statistically significant positive prediction to the dependent variable with Beta value of 0.103. That implies that perceived privacy made strong positive influence/contribution in predicting the dependent variable.

4.4. Summary of Hypothesis Result

Based on the above multiple linear regression result, summary of hypothesis testing is drawn.

All of the hypothesis result shows expected result which means all independent variables have significant effect on trust toward e-hailing service.

The following table 12 briefly showed a summary of the overall outcome of the research hypotheses.

Hypothesis	Independent Variables	Coefficient beta	Results
H1	Perceived familiarity	.126	Accepted
H2	Perceived brand	.152	Accepted
H3	Perceived reputation	.148	Accepted
H4	Perceived website/ Application quality	.160	Accepted
H5	Perceived customer service	.246	Accepted
H6	Perceived Security	.250	Accepted
H7	Perceived privacy	.102	Accepted

H8	Third-party assurance	.194	Accepted
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Table 12: Results Summary of Hypotheses

(Source: Hypothesis testing result, 2020)

Based on the above multiple linear regression results, a summary of hypothesis testing is drawn. All of the hypothesis results show the expected result which means all independent variables have a significant effect on trust toward e-hailing service.

4.5. Discussions of Finding

The research presented here aims to deliver new insights into the concept of trust in e-hailing service which has been proposed to be vital requirements to meet the challenge of trust perception in online shopping. Many studies were conducted related to identifying factors that can determine and build consumers' trust toward the online environment like e-commerce. Yet in this research context, no research could be found examining the factors and find a possible solution from the vendor side. None of the previous researches or studies aim to discuss the requirements that e-hailing service providers have to follow while delivering their service to customers. For instance, research conducted by Hsu (2008) discussed seven factors named as reputation, third-party assurance, customer service, a propensity to trust, website quality, system assurance, and brand have a significant impact on online trust. Hidayanto and Herbowo (2014) study also revealed that customer trust has a positive and significant impact on customer intention to purchase and word of mouth intention. But these studies don't show how e-vendors can design their platform by considering the listed factors. Due to this, this research intended to design requirements by basing a trust-building framework. Based on the research result a requirement is designed under each factor to fulfill customers' trust toward e-hailing services. Additionally, a local research has been conducted that deals with identifying factors affecting customers' satisfaction in Mobile application based taxi service with reference to RIDE (Bekele, 2019). Locally the topic of customer's trust toward e-hailing services was not discussed with any researcher. So that this empirical research uncovered the requirements that needs to be fulfill while providing the e-hailing service to gain customers trust. The major contribution of this research is designing requirement to build customers trust toward e-hailing service.

This study aims to answer the question of which factors determine customers' trust toward e-commerce? Which specific factors are important for building consumer trust toward e-commerce in the electronic transportation system?

There are several factors that can determine customers' trust in the online environment. This study attempt to review the literature with related topics and selected the most relevant and dominant factors that were studied by different researchers.

This part of the thesis discusses the findings based on the result of the analysis. In our case, the antecedent factors of consumers' trust in e-commerce were identified. The analysis was done using statistical software SPSS using tools such as descriptive statistics and multiple linear regressions. Based on the collected data the identified factors are categorized into two trust-building sections namely Knowledge-based trust and Institutional based trust. The researcher selects those factors based on literature reviews.

The descriptive statistics were applied to analyze respondents' demographical data as well as to answer the first research question. As the result implies the majority of the respondents (86.3%) showed a positive attitude toward using the internet to purchase product\services (see table 8). around 49.5% of the respondents use the e-hailing application to request a taxi (see table 9). 79.5% of the total respondents prefer paying in cash (see table 10).

The remaining part of the research question was analyzed using inferential analysis. As the results discussed in the previous section the level of importance to each factor was identified based on the respondents' perception. To assess the determinants of the eight dimensions of trust toward e-hailing service, multiple linear regression analysis was computed. Table 15 showed that all the predictor variables which are Familiarity, Reputation, Brand, Web/ Application Quality, Customer Service, Perceived Security, Perceived privacy, and Assurance made a statistically significant prediction in predicting the dependent variable, trust toward e-hailing service. According to the model summary in table 13 model coefficient of determination or R^2 obtained indicates that 76.7% of the variation in the measure function (Trust toward e-hailing service) can be explained by the listed eight factors. The total summary of the regression analysis is added up together in the following table.

Factors	r	P-Value	Coef.	VIF	Tolerance
Perceived Security	0.653	0.00	0.250	1.504	0.665
Customer service	0.701	0.00	0.246	1.793	0.558
Assurance	0.551	0.00	0.194	1.294	0.773
Website/ Application Quality	0.454	0.00	0.160	1.189	0.841
Brand	0.468	0.00	0.152	1.192	0.839
Reputation	0.511	0.00	0.148	1.271	0.787
Familiarity	0.503	0.00	0.126	1.315	0.76
Perceived Privacy	0.420	0.00	0.102	1.202	0.832

Table 13: Summary of Regression analysis

Source: Own Survey; 2020

Table 16 shows that Pearson correlation (r or R) was computed to measure the strength of a linear association between the dependent variable and independent variables. As the result implies Customer service, Perceived security, Assurance, and familiarity show a strong positive relationship with trust toward e-commerce. The remaining determinants are moderately correlated with the dependent variable. But all variables were significant at $p < 0.001$. VIF and Tolerance were computed to test the multicollinearity of the variables. The result implies that both VIF and Tolerance are in the range of acceptable values which implies that multicollinearity was not violated so that the factors are considered valid.

To evaluate the contribution or influence of each independent variable to the dependent variable, one can see the Beta value. The value of Standardized coefficients shows how increases in the independent variables affect relative position within the group. Beta was computed to investigate which independent variable more likely determines the dependent variable. According to the result, all the independent variables have an impact on the dependent variable. The larger value of the Beta coefficient an independent variable has brought more support to the independent variable as the more important determinant in predicting the dependent variable. These factors are listed in ascending order based on their beta value as the following Customer service, Perceived Security, Perceived Security, Assurance, Reputation, Familiarity, Brand, Website/ Application

Quality, and Perceived Privacy. The relationship between the independent variable and the dependent variable and all requirements are discussed in detail as follows:

4.5.1. Perceived Security and Trust toward E-hailing Services

Perceived security has the highest impact on consumers to determine their trust toward e-hailing service comparing to the remaining factors. The security of e-hailing service can be compromised with different threats like financial fraud, Phishing, Spam, bots, and other threats unless a solid security mechanism is applied. For this research, three sub factors were computed under security named as providing Secure and Reliable Payment System, Possibility to choose a Payment Method and Information about how security solution works.

The result implies that e-hailing service providers have to create a Secure and Reliable Payment System. The internet provides us with several services to conduct e-commerce and e-banking operations with a few clicks. This sub factor can be fulfilled using different mechanisms for instance providing reporting emails and messages that ask for personal details or passwords of the banking session. Also, It is a good practice to check if the websites, payment gateways, digital payments, and e-hailing service platform uses for online transactions are secured with an HTTPS socket. However, lack of network infrastructure, security problems, and the awareness level of users, inadequate laws and regulations are the major challenges to make payments electronically in Ethiopia. Due to this while integrating an online payment system with the e-hailing service platforms it's necessary to allow the customers to choose the Payment method either to pay in cash or to pay electronically. According to Pant's (2011) research, a payment gateway cannot completely protect a customer's payment information when a merchant also can obtain the payment information in some form. For instance, an e-vendor is required to inform the consumers of how a security solution works. This contains informing the customers that what kind of security mechanism they have been using so that consumers can feel trust toward the service that is being provided. This includes stating for the customer regarding the security plan the e-hailing service providers are using. Trust and reputation are very difficult to gain with a small startup. Therefore, it's necessary to use the best practices and strategies to minimize online threats and empower e-commerce security. And informing the customers regarding the security mechanism enhances customers' trust toward the online environment. For instance, e-hailing service providers need to apply the following security mechanisms but not limited to the following lists: installing security updates and patches allows us to stay up to date, applying a Secure server, to keep unprotected

network it is recommended to use firewalls to regulate the traffic that enters and leave the site, Apply antiviruses and anti-malware software in order to flag out any malicious to take any action upon them. Besides protecting the technical aspect of the platform it's necessary to train both the staff members and educating clients in order to strengthen the security. It's mandatory to create awareness for the staff regarding all the laws and regulations as well policies regarding security. Staff members shouldn't share credentials as well as keep track of who has access to sensitive data. And if the member of the staff resigned to make sure all the privileges are revoked. Security breaches also might happen from the client-side for instance we need to educate the client to use a very strong password with a combination of characters, symbols, and numbers. And warning them to do not share a password with another person.

4.5.2. Customer Service and Trust toward E-hailing Service

The result implies that customer service has the highest impact on consumers to determine their trust toward e-hailing service next to perceived security. So that e-hailing service providers have to give very effective customer service via online or telephone and providing fast/ effective feedback on inquires. This will make the customer build and enhance trust in the e-hailing service. Every interaction with customers influences whether or not they will return and build trust. It's important providing different ways for customers to interact with the company. For instance creating a discussion forum that allows customers to interact with each other, sending out information and advertisement via email in order to keep customers informed allows to build a strong relationship between the customer and the company as well as strengthen loyalty and sense of trust. This allows customers to reduce uncertainty, which then can increase trust. To practice good customer services the company need to take the time to find out customers' expectations with the information the customers provides using the platform, collect and follow up on both positive and negative feedback to act upon them and another thing is that the service providers need to continuously look for ways to improve the level of customer service that is being delivered. In order to support all this, it's important to capture customer feedback in real-time.

4.5.3. Assurance and Trust toward E-hailing Services

On the third level, people feel trust when assurance is provided by the e-hailing service provider. So, based on the survey consumer expect Standard term in connection to the order form (terms for returns, refund), a confirmation on the order and purchase, and also a policy that protect consumers' private information has to be incorporated. Trust is very important in e-commerce.

Assuring customers enhance knowledge-based trust between shoppers and online merchants. According to Kimery and McCord (2015), research assurance is generalized into three categories. Which is defined as *Privacy Assurance* that merchant discloses and complies with privacy policies. Which includes a Policy that protects customers' private information. *Process assurance* deals with assurance regarding merchant compliance with standards of internal business processes or order fulfillment. *Technology assurance* is stated as an assurance that specific technologies are employed by the merchant or his/her agents to enable secure or reliable order and payment handling.

4.5.4. *Website/ Application quality and Trust toward E-hailing Services*

Website/ Application quality was on the fourth level of the remaining factors. This implies that web/ application design of the best quality is a perfect way to convey trustworthiness to users. Website/Application quality is based on features in a website that meet customers' needs and impress the total excellence of that website/application. There a lot of features that can be incorporated to enhance the quality. Such feature includes using advanced technology like the ease of navigation, good use of visual design elements, Create helpful content resources that includes information about the company on the website, and sufficient information to let the consumers evaluate the product/services increases their trust toward the e-hailing service. So that e-hailing service providers are required to enhance their e-hailing applications or websites qualities n order to enhance customers' trust.

4.5.5. *Brand and Trust toward E-hailing Services*

On the fifth level of the factors, Brand predicts customers' trust toward e-hailing service. Brand implies that Vendors are well known in the traditional world, in the internet world, and also a company with a well-known logo. So that the more the brand of the company is well known by the customers their trust more likely increases toward the e-hailing service. to enhance and build customers trust a brand should have the following characteristics:

- *Stability* – a brand must have a foundation or stability
- *Innovation* – a brand must continue to develop & innovate
- *Relationship* – a brand must provide a relationship
- *Benefit* – a brand must deliver practical value
- *Vision* – a brand must have a guiding vision
- *Competence* – a brand must have competence

As Ali and Wajahat (2010) discussed Consumer trust in a brand is build up when; a consumer uses that brand and gathers data about brand reputation, its predictability, and competencies. When brand reputation is good, it meets the predictability of customer and it has the competency to satisfy the customer's needs, it helps to develop the trust of customer on brand. To enhance brand reputation effective advertising techniques have to be applied. While building the image of a brand which in turn would build customer trust and credibility. At the same time, website design is an important determinant of the website features, and is critical in achieving the quality of service offered to customers through the website (Hasanov and Khalid, 2015).

4.5.6. Reputation and Trust toward E-hailing Services

On the sixth level, consumers' trust depends on the reputation of the e-vendor which means customers build trust when the company is a well-known brand, and also Feedback\ Testimonial which can be through word of mouth or frequently asked Question on their website or application. So that the more there is a positive reputation of the company the more consumers build trust and access the e-hailing service. The different mechanisms can be applied to build companies reputation. Reputation emerges and enhances as a result of social network effects when information on an object in one relation spreads to others. Empirical evidence was found that information from personal sources (friends/acquaintances/colleagues) was particularly influential for the perceived reputation of the vendor and also of significant relevance for the reputation of the system (Einwiller, 2010). Reputation consists of people's opinions and perceptions which makes it difficult issue address. Due to this Reputation management should be a part of e-hailing service providers. As the result implies reputation is one of the most important factors that determine customers' trust in e-hailing services. Solid management, strategies, and execution are needed to take full advantage of this factor. According to Pihlstedt (2012) research stated how a good corporate reputation can be achieved. Reputation can enhance trust when a company delivers what was promised for customers which meant keeping honesty but honesty alone cannot build a reputation, though. Good quality is very essential while delivering services. Having quality service alone also is not enough. The company must be able to answer the challenges that the changing markets bring an answer to the growing demands.

4.5.7. Familiarity and Trust toward E-hailing Services

Familiarity is one of the significant factors that have an impact on determining customers' trust toward e-hailing services. According to the survey result when the consumers are familiar with e-

hailing service provider brand and reputation for instance through media or other means more likely to help the customer to build trust upon e-hailing service. In this study, familiarity is considered as a precondition for trust. To create familiarity, creating brand awareness can be applied differently. Lately, social media is one of the major mediums to address a larger number of customers. Social media are a way of a company's communication and branding. Johansson (2010) stated that the company's proactive social media involvement includes the company site and the running of the company's blog. On the other hand, the reactive social media involvement build on following what is said about the company and the products on Facebook, Twitters, blogs, Digital newspaper/ Digital journals etc. If the company can find opinions/ views or information about the company service, an evaluation of these pieces of information is made and a company can respond and comment to the opinions. This helps the company to create a deeper knowledge about any issues as well a company can get a picture of how the consumers see the brand.

4.5.8. Perceived privacy and Trust toward E-hailing Services

The last level of the factors that determine consumers' trust is perceived privacy. E-hailing service providers have to provide a mechanism to create knowledge about how the personal information that the customer will fill in when ordering is handled and Policy of the handling of personal information incorporated on a visible place on the company homepage. Perceived privacy protection on the website helps to reduce consumers' perceptions of risk that stems from online disclosure of personal information and thus encourage online transactions by increasing the perceived trustworthiness of the website (Gurung, 2008).

4.6. Adopted Trust building Framework for Ethiopian E-hailing Service

The proposed customer trust building Framework is based on a framework of an online trust that was proposed by Hsu (2008) which illustrate the framework that contains nine factors under three trust building components. The proposed customer trust building framework is designed based on the findings of the study and related literatures. It address and encompass the following key points as well as those facts founded from assessment which are considered as answers for the research questions:

- The factors that determines customers trust toward e-commerce
- Identifies which specific factors are important for building customers trust toward e-commerce in the electronic transportation system.

The primary focus of the proposed customers trust building framework is to reduce consumers trust concerns toward the e-commerce environment. Since the finding on the previous section shows all the factors have an impact on customers to build trust toward the e-hailing service all the building components from the conceptual framework (see figure 6) were applied to the proposed framework. The building block of the framework contains eight factors perceived security, customer service, Third Party assurance, Website/ Application Quality, Brand, Reputation, Familiarity and perceived security.

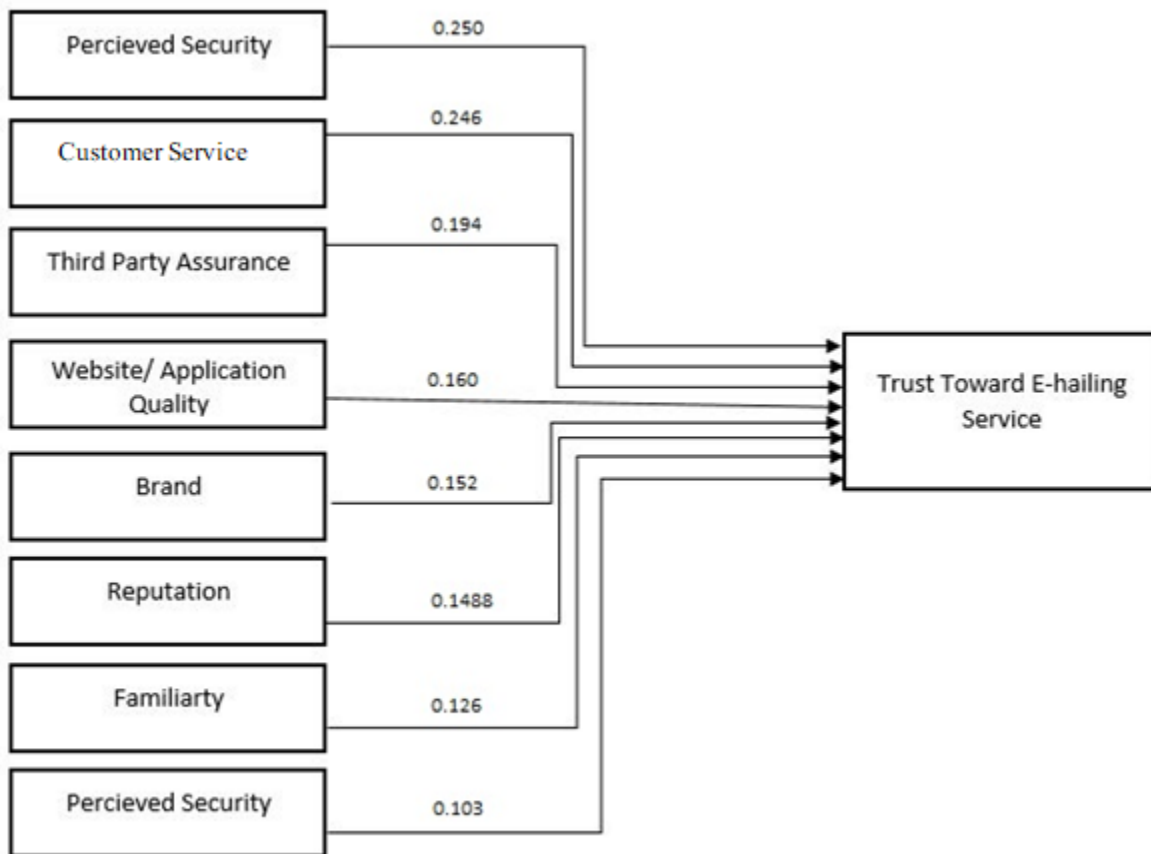


Figure 6: Adopted Trust building Framework for Ethiopian E-hailing Service

4.7. Evaluation of the Framework

In this section, the customers' trust-building framework was validated. The evaluation is done to check whether those consumers trust building blocks are suitable and functional on the e-hailing service. About 10% of respondents were selected from those same participants who were involved

in the survey. Respondents were asked to evaluate each factor under two building blocks of the framework.

After the respondents were identified, they were provided with the proposed trust-building framework and the result. Their perceptions regarding the overall framework were captured by asking how satisfied they are with the framework in general and the extent of the framework’s success in providing a unified and comprehensive view of trust-building toward e-hailing service. The evaluation matrix is attached as Appendix C.

According to 38 respondents who participated in the evaluation; summary of the result is presented as follows.

As presented in table 14, eighteen participants perceived the proposed framework as very important, another eighteen participants perceived the framework as important and only two participants perceived the framework as moderately important to build customers' trust toward e-hailing service.

Element of Satisfaction	Level of Importance				
	Not Important	Slightly Important	Moderately Important	Important	Very Important
Importance of a framework	-	-	2	18	18

Table 14: Level of Importance of the proposed framework

Also the evaluation attempts to see the level of success of the framework. As shown in table 15. Twenty-nine participants rated the trust-building framework success in providing a comprehensive view as very successful and the remaining nine participants rated it as successful.

Element of Satisfaction	Level of success				
	Not Successful	Slightly Successful	Moderately Successful	Successful	Very Successful
Degree of success in providing a	-	-	-	9	29

comprehensive view					
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Table 15: Level of success in providing a comprehensive view

Finally, the framework was evaluated from the point of respondents' level of satisfaction. Here under table 16 shows that, twenty participants rate the overall satisfaction of the framework as very satisfied; sixteen participants rated as satisfied and only two participants rated the framework as moderately satisfied.

Element of Satisfaction	Level of satisfaction				
	Not at all satisfied	Slightly Satisfied	Moderately Satisfied	Satisfied	Very Satisfied
Overall Framework satisfaction	-	-	2	16	20

Table 16: Overall level of satisfaction

According to the evaluation result the identified variables made the framework important to apply in Ethiopia e-hailing services, and also the evaluation shows that a company who fulfill all the requirement that are listed under each factors are more likely to gain customers trust successfully. Finally, the respondents were more likely satisfied with the components of the framework. The respondents have perceived the identified variables very satisfying in creating customers trust toward e-hailing service.

Summary

In this chapter, the primary data were analyzed. Descriptive statistics and regression analysis were employed to investigate how the respondents perceive the factors to be, to feel trust in e-commerce. The analysis is done using SPSS statistics version 20. Frequencies, percentages, and regression analysis were used for discussion for the questionnaire collected from the respondents. Each factor that was identified during the literature review evaluated in this chapter. The result implies that the majority of the respondents have a positive attitude to use the internet to purchase products and services. And also, the result reveals that all the predictor variables which are Familiarity, Reputation, Brand, Web/ Application Quality, Customer Service, Perceived Security, Perceived

privacy, and Assurance made a statistically significant prediction in predicting the dependent variable, trust toward e-hailing service. Meanwhile, the findings of this study indicate that Perceived Security, Customer service, Assurance, Website/ Application Quality, and Brand determine customers' trust are critical factors that significantly determine customers' trust toward e-hailing service. Other factors such as Reputation, Familiarity, and Perceived Privacy also have a close association with trust toward e-hailing services. The adopted trust building Framework for Ethiopian E-hailing Service were evaluated regarding the overall framework were captured by asking how satisfied they are with the framework in general and the extent of the framework's success in applying the framework in Ethiopians e-hailing services.

Chapter Five

Conclusion and Recommendation

5.1. Conclusion

The Internet has become an essential business platform for trading, distributing, and selling products between organizations, among organizations and consumers, and even between consumers. One of the sectors that e-commerce can be applied to is the transportation sector which is called e-hailing service. E-hailing is a term to describe booking rides service through a smartphone app or computer with a transportation network company (TNC) such as Ride, Zayride, or Pick Pick meter taxi. Recently e-hailing services have become popular around the world as well as in Ethiopia. The emergence of e-hailing has changed people's single way of travel; booking a car in advance and choosing a destination through mobile phone software has dramatically saved time and facilitated people's journeys.

In this research, the practice of E-commerce and the factors that build consumers' trust in e-commerce were identified in the case of e-hailing service. A quantitative research approach was employed. Eight factors have been identified, named as Familiarity, Reputation, Brand, Website/Application quality, Customer service, perceived security, perceived privacy, and Third-party assurance. To build the trust-building framework, these factors were divided into Knowledge-based trust and Institutional-based trust based on reviewed literature. The primary data was collected through a questionnaire constructed by related work and literature. The questionnaire aimed to evaluate how the respondents perceived the stated factor and sub-factors to be, to build their trust toward e-hailing services.

According to the analysis and interpretation, the study had analyzed one output variable with eight interpreter factors such as Familiarity, Reputation, Brand, Web/ Application Quality, Customer Service, Perceived Security, Perceived privacy, and Assurance have a significant impact and positive contribution for building trust toward e-hailing service in Ethiopia.

This study only investigated eight determinant variables (perceived security, Customer Service, Assurance, Website/ Application Quality, Brand, Reputation, Familiarity, and perceived privacy) on consumer trust toward e-hailing services. More variables could have been examined to broaden the scope of knowledge in the area of trust in e-hailing services.

Since there are very limited study conducted in Ethiopia regarding e-hailing service, this study refers more to other countries' empirical researches for conceptual understanding and discussion

of the result. In addition, there are limited empirical studies conducted in the area of building consumer online trust specifically in the area of e-hailing service. This study has therefore a great contribution in the business area.

5.2.Recommendation

5.2.1. Recommendation for E-hailing Service Provider

Trust is the cornerstone of customer relations in the e-commerce market. It is a long-term proposition that may be tough to build and easy to lose. To improve consumers, trust in e-commerce is essential to study customers' behavior toward e-commerce. This study tries to investigate various factors that influence consumers to established trust and eight factors were identified and evaluated accordingly. As per the result, the following recommendation is recommended.

This research identified important factors for establishing trust in e-hailing services, which can be helpful to companies. The companies can adopt and implement tools and techniques that can fulfill the identified factors to become better at serving the customers' needs toward building their trust.

- E-vendors instance providing proactive customer services like creating a channel to chat live with the customers. Only communicating through the phone is not good enough. Consumers expect a very quick response to their questions or comments.
- E-vendors have to assure the users by providing policies on how they handle the personal information that is being registered. Many methods can be employed to help engender this trust among online consumers. Assurances provided by trusted third-parties are just one such method. Users feel reluctant to provide any information unless the vendor offers any kind of assurance by providing policy on the sites.
- The other thing is that the e-vendor is required to protect customers' data security and privacy to build consumers' trust in the online environment. Consumers want to make sure that their data, is closely guarded. To protect the data the e-vendor can adopt cybersecurity, and train employees on best practices for cybersecurity and privacy.

5.2.2. Recommendation for future research

- In addition to the factors identified in this research, other factors can potentially build customers' trust in the online environment. Future studies can go through additional potential factors which are not discussed in this research.

- This research focused on the customers' perspective, for future research its recommended to go ask and conduct a survey from the company's (E-hailing or E-commerce provider) perspective on how they have managed to handle the challenge of establishing customers' trust toward e-hailing service.
- In this research, the focus has been on customer trust in e-hailing services. However, trust is an important aspect for other sectors and parties too, for instance for retailers, import and export and from other sectors perspective. And also trust can be studied from employees, suppliers, and distributors' perspectives.

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Appendix A: Questionnaire First version (pilot-test)

Dear Sir or Madam,

I am MSc student at Addis Ababa University and I am doing my research on Customer trust building Framework for e-hailing service in Ethiopia. The research aims to investigate the factors of Consumers trust in e-commerce and to propose trust building Framework.

To complete the whole questionnaire, it will take no more than 10 minutes of your time. I really appreciate your contribution. It is intended to use the results to build a framework to address users concern in order to build trust on E-commerce.

I assure you that all responses will be confidential and will only be used for the purpose of the research.

Thank you for your assistance.

Survey (questionnaire)

First version of questionnaire (Pilot Study)

1. Gender
 - Male
 - Female
2. Age
 - 20-29
 - 30-39
 - 40-49
 - 50 +
3. Occupation
 - Student
 - Job in private sector
 - Job in public sector
 - Unemployed
 - Self employed
 - Others, please specify _____
4. Education Qualification completed
 - PhD
 - Master's degree
 - Bachelor's degree
 - Undergraduate
 - School Certification
 - Primary School
 - Other

Section 1: E-commerce practice

5. How often do you use the internet?
 - Every day/Almost every day
 - Two or three times a week

- About once a week
- Two to three times a month
- Less often
- No internet accesses
- Never

1. Have you previously purchased on the Internet?

- Yes
- No

2. Which attitude do you have toward using the internet to purchase product/services?

- Positive
- Negative
- No opinion

3. Which Technique do you use to request a taxi from E-hailing service provider?

- Electronic/ E-hailing Application
- Call center
- Both

4. Which type of Payment method do you prefer

- Cash
- E-wallet
- Check payment

5. Which of these visible factors would increase the trustworthiness of the site, and hence influence you to purchase from this site?

	No Importance	Slightly Importance	Important	Very Important	Don't Know
Security seal	○	○	○	○	○
Privacy seal	○	○	○	○	○
Search facilities	○	○	○	○	○

Logos of well-known brands	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pictures of products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rates how secure a site is	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Company logo	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Navigation (Layout and ease of use)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. What information displayed on the site is important when trying to gain your trust?

	Not Importance	Slightly Important	Important	Very Important	Don't know
Privacy policy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Security policy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feedback section/ Testimonial	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Frequent Ask Question	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Customer service section	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Guarantee/ Insurance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Product information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. How likely are you to trust an e-commerce site that?

	Not Important	Slightly Important	Important	Very Important	Don't know
Provides fast/ effective feedback on inquires	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Low prices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Well known branded products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use advanced technology(E.g. live customer service)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Well known traditional merchant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. How likely would you trust to make an online purchase from?

	Very Unlikely	Unlikely	Likely	Very likely	Don't Know
Vendors well known in traditional world	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vendors well known in the Internet world	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix B: Survey (questionnaire)

Dear Sir or Madam,

I am MSc student at Addis Ababa University and I am doing my research on Customer trust building Framework for e-hailing service in Ethiopia. The research aims to investigate the factors of Consumers trust in e-commerce and to propose trust building Framework.

To complete the whole questionnaire, it will take no more than 10 minutes of your time. I really appreciate your contribution. It is intended to use the results to build a framework to address users concern in order to build trust on E-commerce.

I assure you that all responses will be confidential and will only be used for the purpose of the research.

Note: E-commerce defined as the use of the Internet, the World Wide Web (Web), and mobile apps and browsers running on mobile devices to transact business. Most of the time the term internet and web are used interchangeably but meanwhile, scholars have defined the two terms in a different way. E-hailing service is one of E-commerce category which means that the process of ordering a car, taxi or any other mode of transportation by way of computer or mobile device.

Thank you for your assistance.

Section 1: Personal Detail

1. Gender

- Male
- Female

2. Age

- 18-29
- 30-39
- 40-49
- 50+

3. Occupation

- Student
- Job in Private
- Job in Public Sector
- Self-Employed
- Unemployed
- Others

4. Education Qualification

- PhD
- Master's degree
- Bachelor's degree
- School Certification
- Others

Section 2: E-commerce practice in Ethiopia

5. How often do you use the internet?

- Every day/Almost every day
- Two or three times a week
- About once a week
- Two to three times a month
- Less often

- No internet accesses
 - Never
6. Which attitude do you have toward using the internet to purchase product/services?
- Positive
 - Negative
 - No opinion
7. Which Technique do you use to request a taxi from E-hailing service provider?
- Electronic/ E-hailing Application
 - Call center
 - Both
8. Which type of Payment method do you prefer
- Cash
 - E-wallet
 - Check payment

Section 3: Trust toward E-hailing Services

		Strongly Agree	Slightly Agree	Agree	Neutral	Slightly Disagree	Disagree
Trust Toward E-hailing Service	E-hailing service providers are trustworthy and honest						
	It is not a problem to give the private information to the E-hailing service provider						
	I tend to relax when I am dealing with the e-commerce\E-hailing web sites that						

	I have had a pleasant experience with						
	I believe most e-commerce web sites will perform to the outmost of the customers benefit						

Section 4: Knowledge-Based Trust in E-commerce

How important are the following factors for you to feel trust to purchase product/ services on the internet?

Factors		Not Important	Slightly Important	Important	Very Important	Don't know
Familiarity	E-hailing services Brands					
	E-hailing Service Reputation / Recommendation for example: in media, from Family, friend....					
Reputation	Feedback\ Testimonial					
	Frequently asked Question					
	Logos of well-known brand					
Brand	Vendors well known in traditional world					
	Vendors well known in the Internet world					

	Company Logo					
Website/ Application Quality	Design – How the web site look					
	Functionality user friendly, easy to navigate in the menus					
	Use advanced technology (E.g. live customer service)					
	Information about the company on the website (For Example Who owns the company, Number of years in business)					
	Sufficient information to evaluate the product/services					
Customer service	Possibility to ask question and get help directly, online or by telephone					
	Provides fast/ effective feedback on inquires					

Section 5: Institutional-Based Trust in E-commerce

Please tick your favorable condition toward the following factors:

Factors	Not Important	Slightly Important	Important	Very Important	Don't know
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Security	Secure and Reliable payment System					
	Information about how security solution works					
	Possibility to choose Payment method					
Privacy	Knowledge about how the personal information that you will fill in, when ordering is handled					
	Policy of the handling of personal information, on visible place on the company homepage					
Assurance	Standard term in connection to the order form (terms for returns, refund)					
	Confirmation on the order and purchase					
	Policy that protect my private information					

Appendix C: Questionnaire Survey: Consumers trust building Framework Evaluation

Dear Sir or Madam,

I am MSc student at Addis Ababa University and I am doing my research on Customer trust building Framework for e-hailing service in Ethiopia. The objective of the survey is to evaluate the proposed framework to build consumers trust toward e-hailing service.

This research is believed to produce results that can reduce consumers trust issue toward e-commerce environment.

To complete the whole questionnaire, it will take no more than 10 minutes of your time. I assure you that all responses will be confidential and will only be used for the purpose of the research.

1. Please express your level of satisfaction on the proposed Trust Building Framework by putting a (✓) mark in the box corresponding to the level of satisfaction

Element of Satisfaction	Level of Importance				
	Not Important	Slightly Important	Moderately Important	Important	Very Important
Importance of a framework					

Element of Satisfaction	Level of success				
	Not Successful	Slightly Successful	Moderately Successful	Successful	Very Successful
Degree of success in providing a comprehensive view					

Element of Satisfaction	Level of satisfaction				
	Not at all satisfied	Slightly Satisfied	Moderately Satisfied	Satisfied	Very Satisfied
Overall Framework satisfaction					