ST. MARY'S UNIVERSITY

SCHOOL OF GRADUATE STUDIES

E-COMMERCE REGULATORY FRAMEWORK AND CHALLENGES OF RIDE
HAILING BUSINESS ON SECURITY AND PAYMENT PROCESSING METHODS IN
ADDIS ABABA

BY

AMANUEL TSEGAY

JUNE, 2021

ADDIS ABABA, ETHIOPIA

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AMANUEL TSEGAY

A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY, SCHOOL OF GRADUATE STUDIES IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION

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Advisor **Signature**

DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of research adviser Hailemelokot Taye (Asst. Prof.) and Zemenu Aynadis (Asst. Prof.). All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

_____   _____

                Name   Signature

St. Mary's University, Addis Ababa June, 2021

ENDORSEMENT

This thesis has been submitted to St. Mary's University for examination with my approval as a university advisor.

_____   _____

Advisor   **Signature**

St. Mary's University, Addis Ababa June, 2021

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ACRONYMS

DETL	Draft Electronic Transactions Law
AATB	Addis Ababa Transport Bureau
ECA	Economic Commission for Africa
GOE	Government of Ethiopia
GPS	Global Positioning System
GTP	Growth and Transformation Plan
ICCPR	International Covenant on Civil and Political Rights
ICTs	Information Communication Technologies
ICT4E	Information Communication Technology for Education
ICT4D	Information Communication Technology for Development
IDRC	International Development Research Centre
INSA	Information Network Security Agency
ISP	Internet Service Providers
IT	Information Technology
ITF	International Transport Forum
NISS	National Intelligence and Security Service
NEV	New Energy Vehicles
OECD	Organization for Economic Co-operation and Development
PKI	Public Key Infrastructure
SLR	Systematic Literature Review
SSI	Semi Structured Interview
TNC	Transportation Network Companies
UNCITRAL	United Nations Commission on International Trade Law

ABSTRACT

E-commerce legal framework needs are a must to be built while access to and quality of Internet services have to be improved to fill the gaps in absence of online marketing platforms as well as to build confidence contributing to the key limitations in the ride hailing division. The objective of this study was to assess the existing e-commerce regulatory framework and challenges of ride hailing business on security and payment processing methods. Proper e-commerce law would create feasible environment. The drafted policy and manuals to launch e-commerce, draw lessons from the experience of Australia and India, particularly empirical findings show the connection of independent variables in security and payment processing methods getting articulated in the regulatory acts with priority. This fundamentally described these are basic measures taken to prevent misconducts. To achieve objective of this research, a descriptive and thematic methods were designed for quantitative and qualitative approaches respectively. The target populations of the research were ride hailing drivers found in selected sub cities of Addis Ababa, administration officers from Ride and Seregela TNCs and Addis Ababa Transport Bureau which are experts and has good understanding of the matter taken as key informants. The data was collected using structured questionnaire and semi structured interview which contained items that measure the existing regulatory framework and challenges of ride hailing business in relation to security and payment processing methods. After permission granted, the questionnaires were distributed to the respondents by telegram using Google forms links. Cronbach's Alpha reliability test was used to test the internal consistency of the instrument. After the data collection, the collected data was entered into SPSS software version 20. This research revealed that the legislative requirement gaps detected in the e-commerce regulatory framework issues and ride hailing challenges related to security and payment processing methods which were mainly from the interviewees, are wrapped into three parts as matters of data presentation (security), issues of data availability/accessibility (Security/Payment processing methods) and capability of registered evidence consumption for reference (safety/security/ payment processing methods). From the collected data an analysis is deducted to address these matters which will provide wider acceptance in the accounting system, and also playing important role in promotion of the ride hailing business as well as the digital economy sector. Observed gaps in the legislative work believed to reduce security issues and payment processing methods which need to be further discussed. Issuance of e-receipts and their uses for future reference deprived of supporting legislative is another gap in the payment processing methods that is found to has an impact as a legal matter since its acceptance is low and considered as violation of a regulation in the accounting system, standing without supporting proclamation or law falling under safety concerns. In the studied organizations it was observed that the booking applications send automated e-mails containing e-receipts making the system exposed to legal breach. It's advised that the required technical security and readiness are required to flourish the ride hailing business, these includes matters such as infrastructure, containing to form regulatory specifications and standards to be met and use of connectivity under service level agreements with the service provider. There also should be a need for regulatory requirements fulfillment in regard to systems and applications security.

Key Words: E-commerce, Ride Hailing challenges, Regulatory Framework, security, payment processing methods.

CHAPTER ONE

INTRODUCTION TO THE STUDY

1.1 Background of the Study

The first chapter deals with the introductory part of the research in which background of the research, statement of the problem, objectives of the study, significance, scope and limitation of the study, and organization of the paper are incorporated.

Electronic commerce is in its infancy in Ethiopia and is hardly used. Most Ethiopians do not have credit cards, and for a good number of years Internet connections have been slow, expensive and unreliable across the country. However, Internet service has recently improved as a result of Ethiopia's connection to Seacom's underground sea fiber optic cable through Djibouti.

The Government of Ethiopia (GOE) is preparing a draft national law to govern e-commerce. Internet, which is having profound changes on almost all aspects of our society and life, has recently called for the drafting of new legal instruments, both at global and domestic level, in order to put the regulation of the Internet business on a more solid foundation and to better regulate the activities carried out through this medium. It is undisputedly clear that the no act by itself can meet the challenges of e-commerce transactions and that no single government or nation can completely regulate the Internet or e-commerce. Co-operation amongst states and international organizations is necessary in+ order to harmonize the existing rules and to give that certainty and predictability that business activity needs when taking place over modern technology (Muluneh, 2020).

In providing concrete regulations within these subject matters, emphasis should be upon the service providers to render their services in line with the requirement of the law. Thus, consumers are better assured of their rights in cases of breach. Also, care must be taken to ensure that the emphasis is not only on contracts concluded by the Internet but all contracts concluded by the use of electronic devices and the products or services associated with it. The validity of a contract within e-commerce must be clearly defined and the conditions must be ascertainable (Muluneh, 2020).

While progress has been achieved in the draft formulation, with regards to the admissibility of electronically generated evidence, this in itself cannot achieve the intended drive for a regulated e-commerce economy. An Electronic Transaction Regulation must be in act which is designed to facilitate electronic businesses and transactions in Ethiopia. Issues raised in the regulatory framework are something that needs to be discussed because for Ethiopia to become an active player in e-commerce, the enabling legal environment to enable electronic transactions has to be created in order to ensure equal opportunities and economic development in the sector. It will further allow for the implementation of e-government services, improving the quality of services and reducing the cost of services, and increasing transparency and efficiency in the procurement and sale of goods and services (Jennifer, 2012). Therefore, this paper aims to promote public confidence by citing out matters which need focus on the regulatory framework as well as enhance competitiveness in e-commerce.

1.2 Statement of the Problem

E-commerce is not only about simplifying marketplace information online as it consists other facilities including product minutes among vendors. In topical years, the country has been determined to renovate Internet marketing into E-commerce by enrolling policy and employed for its enactment. The introduction of e-commerce would be a significant move to conduct effective marketing, promote technological innovation through competition and enable businesses and consumers to buy and sell products and services within a short period of time. Besides, availing products with cheap price cutting various market chains, it also makes it easier to promote products and brands internationally. The overview of e-commerce would be another addition to the country's efforts to attract foreign direct investment as it would make it easier for businesses to trade inputs and outputs online (INSA, 2014).

Absence of online marketing platforms and financing system as well as legal frameworks to build confidence are the key limitations in the division. Proper e-commerce law would create feasible environment; in addition, access to and quality of Internet services has to be improved. The Ministry of Innovation and Technology has drafted policy and manuals to launch e-commerce by drawing lessons from the experience of Australia and India, particularly on the implementation of cash on delivery system to prevent misconducts. India is the fifteenth leading country in e-commerce whose business-to-business trade expected to reach 500 billion USD by

2025 (eshopworld, 2018). Various standards have been enacted lately to monitor and assess companies that would adopt e-commerce business in Ethiopia (Muluneh, 2020).

To launch e-commerce businesses in the country, establishment of legal framework is a crucial measure as strong and close collaboration among stakeholders is also vital to launch e-commerce as online marketing needs coordinative efforts of all stakeholders. Besides, availing legal frameworks, it is also imperative that the country strives to improve Internet access. Dire Tube, for example, faces challenges related to Internet service interruption and poor connection, while supplying market information online. Ethio telecom, the sole provider of Internet services in the country has been working to improve Internet access from the current penetration to 95 percent by 2022. Banks have also started electronic banking services. This can be attributed to improved access and the ever-increasing habit of using Internet as major source of information. In fact, there are more than 22.7 million Internet subscribers in the country (Ethiopian Monitor, 2020).

As Ethio-telcom responds, the major reason for poor Internet connection is customers' awareness gap in balancing the capacity of Internet bandwidth (transmission capacity) they bought with their consumption. Through awareness creation campaigns, Ethio-telecom is urging customers to buy Internet packages as per their consumption demand. The country's Internet connectivity (international gateway) has reached 20 gigabyte per second during the second Growth and Transformation Plan which stood at 3.2 gigabyte in 2009/10 as Dr. Abrham indicated in his speech (Ethiopian Monitor, 2020).

It would be conceivable to launch various e-commerce powered businesses within a short period of time, if the country succeeds to overcome the challenges on time. Currently, though e-commerce lies at an infant stage in the country, it is growing rapidly. The 2014 World Internet Status declares that Ethiopia has had only 1.9% Internet penetration. However, the world status of 2015 shows that the 1.9% Internet penetration reached 3.7%. This report also indicated that the number of Internet users increased from mere 10,000 in the year 2000 to 3,700,000 in 2015. As the number of Internet users in Ethiopia grew, companies have shown their interest to transact online despite the absence of online payment system and efficient delivery system for items bought online. Local players like et.kayimu.com, mekina.net and delala.com have recently joined the platform. In our case the transportation network business is undergoing through a firm

competition among startup rivals. At present there are more than nine ride hailing service providers holding a valid trade license to carryout operation. Among these RIDE, PickPick, ZayRide, Feres, Seregela, PoloTrip, and Tribe seem to be the few which successfully penetrated the market through their mobile app and USSD dial code interfaces to execute their business.

Thus, this research strives to explore the existing system for regulating e-commerce in the country and tried to pin point global experiences around the world to overcome overhanging challenges and prospects enduring to carry out such attempt of regulating ride hailing services.

1.3. Research Questions

- What are the existing e-commerce regulatory framework gaps and issues of security related to unmet needs of stakeholders in the area?
- What are main challenges of payment processing methods that hinder provision of ride hailing service in the city?

1.4. Objectives of the Study

1.4.1. General Objective

The main objective of this study is to assess the existing e-commerce regulatory framework and challenges of ride hailing business on security and payment processing methods.

1.4.2. Specific Objectives

The study is directed towards achieving the following specific objectives.

- Identifying existing e-commerce regulatory framework gaps and issues of security related to unmet needs of stakeholders in the area.
- Examining main challenges of payment processing methods that hinder provision of ride hailing service in the city.

1.5 Significance of the Study

Potentially, the research could contribute to the development of e-commerce in the area of ride hailing service provision and the regulation of affairs to such type of transactions. Thus, it is intended to serve as an initial stepping ground to promote safe and sound ride hailing services in Ethiopia. Besides, it can also be used as an input for the promulgation of a law in relation to e-commerce and TNCs; which in turn warrants efficient and secure transportation service under

the regulatory framework, which Ethiopia will undoubtedly step into holistically. In addition, it is believed to serve as a source for further research in the area.

1.6 Scope and Limitation of the Study

1.6.1 Scope of the Study
The conceptual scope encompassed the regulatory framework issues and challenges of ride hailing service provision issues and e-commerce operations related security concerns and payment processing methods in study area.

Due to lack of sufficient literature on the area exploring to have a rigid base on the status of e-commerce and how transportation network companies operate in Addis Ababa/ is quite fuzzy. Interviews and open-ended questions with TNCs, drivers, relevant officials & experts from government and private sectors; grey and published literature in the area and personal observation on ride hailing service issues have been used as sources of information for the study and the geographical scope of the study is city of Addis Ababa. Concerning the conceptual scope, the study covered regulatory framework gaps and challenges of ride hailing business.

1.6.2. Limitation of the study
This study is confined to assess and identify challenges, gaps and opportunities only related to security and payment processing methods on the basis of which a course of action can be determined and suggested for the betterment of service in the ride hailing sector. In addressing this study, we have the following limitations. Although the study lacks legal/written standards on the challenges of ride hailing business for reference purpose; it was difficult to assess the regulatory framework issues based on the national standard. The other limitation of this research is due to the current COVID-19 pandemic this study is limited to reach the in-depth interview with an administration officer from Ethiopian transport authority because the person was sick and in quarantine, due to this, the research is limited to get adequate data from Addis Ababa Transport Bureau for the research findings. The conceptual framework is limited to security concerns and payment processing methods.

1.7. Organization of the Study
The research is organized in to five chapters. The first chapter deals with the introductory part of the research in which background of the research, statement of the problem, objectives of the

study, significance, scope and limitation of the study, organization of the paper and Operational definition are incorporated. The second chapter deals with the literature review; and defines e-commerce and ride hailing services, conceptual framework of ride hailing services, qualitative analysis of ride hailing services and regulations in developed and developing countries, barriers hindering ride hailing service adoption, and finally, Ethiopian experience and nature of Ethiopian ride haling services regulatory environment was examined. Chapter three incorporates research design and methodology, which describes methodological and ethical considerations of the study including approaches followed, research design specifications sampling process, data collection techniques, processes and analysis strategy adopted. Chapter four discusses study results by presenting data, its analysis and interpretation. Finally, conclusion and recommendation are presented in the fifth chapter.

CHAPTER TWO
REVIEW OF RELATED LITERATURE

2.1. Theoretical Literature

2.1.1 What is E-commerce?

E-commerce has been defined as a process of buying and selling of goods over the Internet. The term was developed later and it was added "exchange of information" in addition to "buying and selling of goods" (Chong, 2008).

Rayport and Jaworski (2002) pointed out it's the process of exchange mediated by technology and that it is based on inter and intra operational activities for enabling such exchange. In this context, Chaffey (2007) considers e-commerce as "all electronically mediated transactions between an organization and any third party".

Rainer and Cegielski (2011) define e-commerce as a "process of buying, selling, transferring, or exchanging of products, services, and/or information via computer networks, including the Internet". Moreover, this supposes continuous flow of information, before and after the process of sales.

Schneider (2011) divides the development of e -commerce into two stages: first wave and second wave. "First wave" of e- commerce was adopted by large enterprises in USA with easy access to capitals, primarily from external sources. Evans and Wurster (1999) refer to e-commerce in this early stage as a "landgrab". At once, the whole new marketplace was created and companies who had sufficient resources and willingness could "grab from the land". These large companies firstly understood the possibilities that e -commerce can offer and started exploring and developing them. Since most companies were dependent on external investors, achieving the profit was relatively rare. The pressure to the smaller companies was far more intensive, and many of them suffered losses. In the beginning, the technology was simple, inexpensive and internet connection was very slow, the websites were mainly English based, e -mails were used unstructured and the integration of e -commerce with other processes were not efficient (Evans & Wurster 1999).

"Second wave" is characterized with the technological boom after 2001, mobile broadband development, and increased speed of Internet on low-cost price. The land was already captured and the key players shifted their attention from capturing to defending the land. Companies started to focus more on competitive advantage and developing strategies to achieve it (Evans & Wurster, 1999). This was a prerequisite for development and adoption of e-commerce from smaller companies using their internal resources. At the same time, certain difficulties arising from using new technologies should be overcome. Stockdale and Standing (2004) stated that the benefits using e-commerce should be visible and substantial so that the companies are encouraged to climb to the ladder from a simple to a more complex stage of e-commerce.

The driving force for improvements and innovations of any company is the aim to increase the revenue. Theoretically, e-commerce can improve the performance by two ways: first, by increasing the customer base and number of purchases, and second, with cost reduction by implementing e- commerce. Cost reduction like material savings, decrease of transport, storing cost, or by reduction of personal expenses (Chaffey, 2009).

Chaffey (2009) divides the benefits from e -commerce into tangible and intangible. While tangible is connected with increased sales, decreased cost and market expansion which can be measured, intangible benefits are hard to identify and access. But they obviously are connected with the tangible.

2.1.2. Regulatory Framework
A regulatory framework is a model an individual can use for restructuring and endorsing regulations in an effective and logical way (Mary, 2021).

2.1.3. Transport Network Companies
A ridesharing company (also known as a transportation network company or a mobility service provider) is a company that matches passengers with vehicles, via websites and mobile apps. Ridesharing companies for automobiles are commonly referred to as ride-hailing services, and such companies exist for aircraft and watercraft as well. Ridesharing companies are examples of the sharing economy and shared mobility. It has been estimated that ridesharing provides at least $7 billion in consumer surplus per year in the United States. Also called a "Ride hailing" or "Ride sharing" service, in 2013, the California Public Utilities Commission created the

transportation network company category to deal with these services. Starting the year 2014, Addis Ababa has started experiencing the e-commerce drive under this category.

2.1.4. Types of E-commerce

Electronic commerce incorporates all online marketplaces that connect buyers and sellers. The internet is used to process all electronic transactions. In the moment, the first thing to think about is the type of business transaction to go for. When thinking about the business to run, the question to ask is for who do you see yourself selling to? The type of e-commerce defines this with the basic traditional categories. These are the 6 basic e-commerce types which are discussed below (DeMatas, 2021).

- ✓ Business-to-Business (B2B)
- ✓ Business-to-Consumer (B2C)
- ✓ Consumer-to-Consumer (C2C)
- ✓ Consumer-to-Business (C2B).
- ✓ Business-to-Administration (B2A)
- ✓ Consumer-to-Administration (C2A)

1. Business-to-Business (B2B)

Business-to-Business (B2B) e-commerce encompasses all electronic transactions of goods or services conducted between companies. Producers and traditional commerce wholesalers typically operate with this type of electronic commerce.

2. Business-to-Consumer (B2C)

The Business-to-Consumer type of e-commerce is distinguished by the establishment of electronic business relationships between businesses and final consumers. It corresponds to the retail section of e-commerce, where traditional retail trade normally operates. These types of relationships can be easier and more dynamic, but also more sporadic or discontinued. This type of commerce has developed greatly, due to the advent of the web, and there are already many virtual stores and malls on the Internet, which sell all kinds of consumer goods, such as computers, software, books, shoes, cars, food, financial products, digital publications, etc.

When compared to buying retail in traditional commerce, the consumer usually has more information available in terms of informative content and there is also a widespread idea that you'll be buying cheaper, without jeopardizing an equally personalized customer service, as well as ensuring quick processing and delivery of your order.

3. Consumer-to-Consumer (C2C)

Consumer-to-Consumer (C2C) type e-commerce encompasses all electronic transactions of goods or services conducted between consumers. Generally, these transactions are conducted through a third party, which provides the online platform where the transactions are actually carried out.

4. Consumer-to-Business (C2B)

In C2B there is a complete reversal of the traditional sense of exchanging goods. This type of e-commerce is very common in crowdsourcing-based projects. A large number of individuals make their services or products available for purchase for companies seeking precisely these types of services or products. Examples of such practices are the sites where designers present several proposals for a company logo and where only one of them is selected and effectively purchased. Another platform that is very common in this type of commerce are the markets that sell royalty-free photographs, images, media and design elements.

5. Business-to-Administration (B2A)

This part of e-commerce encompasses all transactions conducted online between companies and public administration. This is an area that involves a large amount and a variety of services, particularly in areas such as fiscal, social security, employment, legal documents and registers, etc. These types of services have increased considerably in recent years with investments made in e-government.

6. Consumer-to-Administration (C2A)

The Consumer-to-Administration model encompasses all electronic transactions conducted between individuals and public administration.

2.1.5. E-commerce channels and platforms

When It's needed to plunge into a new sales channel, observing at the digital marketing goals of the business is crucial as stated by Cuplin (2021). Reaching out through most successful channels and platforms has various advantages over to: -

- Increase the quantity of traffic to online stores.
- Engage customers shopping through search listings.
- Find new customers who are unaware of the business.
- Increase the quality of traffic to the store.
- Re-engage customers who've shopped with before, or who abandoned carts.

If ample time is given to narrow down the advantages and opportunities businesses get like this, it becomes a lot easier to adopt the right channels. Even though there are lots of options when the business starts, as soon as a target is specified (quality traffic, re-targeting, new audiences) the options become narrower and more suited to the business needs. "Multi-channel strategies are only effective when they are managed effectively and frequently updated with high-quality data, so selecting the right channels is important"; What's more, there's no doubt competitors will be using every option to maximize their online visibility, so keeping ahead of them at key customer touchpoints is vital (Culpin, 2021).

2.1.6. Channel options for e-commerce
Online marketplaces

Online marketplaces bargain an opportunity to list products to capture an alert audience who are actively searching through market listings and advertising. They offer shoppers the chance to surf through multiple categories, add precise filters based on their needs, add products to wish lists and save them for discount events.

The worldwide instance of a marketplace is a brand many people may have been using, Amazon. They retain a 49% share of the US e-commerce market and continue their expansion worldwide, with a growing presence in the Nordics. Amazon isn't the only possibility though. Wish, Alibaba, FlipKart and eBay are among the most popular online marketplaces. Yet just because they have a

vast audience doesn't certainly mean they are suited to any business. It may just mean that a business is entering into a competitive market industry.

Instead, smaller online marketplaces might be better suited to one's business needs. In Denmark for example, a business could gain more visibility and a wider audience by implementing channels like Shopalike, Gul & Gratis, DBA or Miinto.

Search Engines

In contrast to online marketplaces, search engines are suitable for totally different audiences. Instead of browsing categories and applying filters, customers are most likely be searching actively for a specific product. This means they're already attracted in the product to be sold, so the process to convert them into paying customers should be simpler.

The primary examples for search engines in e-commerce are Google, Yahoo and Bing, who provide retailers with multiple possibilities when it comes to their online advertising - such as text and image ads and product listing Ads.

Provided that when a business is exporting product data this is optimized with high-quality structure and content as search engines are a highly effective means of boosting sales. Google Shopping ads now account for 76% of retail search ad spending. If a business wants to get an insight into how it can boost its product listings' performance, it is a must to get hands on a free data feed audit for Google Shopping.

Social Media

It's boldly visible that the potential of leveraging sales through social media channels. In 2019, there are an estimated 2.77 billion global users and that figure is only growing. And these channels have become selling platforms for advertisers, with features allowing vendors to set up highly effective targeting campaigns to reach specific customers. Facebook and Instagram dynamic Ads let users fully customize which products they want to push to which audience: those who have visited the store but not purchased, those who have engaged on social media, those who abandoned cart, etc.

Email marketing

Email marketing has been noticeably dead more than one can wave a stick at. But the current email stats prove that is email marketing is more alive than ever. With the right strategy in place, e-commerce marketers can focus on the strengths of the channel and work their way up to that magical return on investment. The true power of email marketing is that unlike some of the other channels mentioned, it works across all the stages of the customer lifecycle:

1. Acquire new contacts and subscribers,
2. Sell and convert leads into paying customers,
3. Retain existing customers and turn them into loyal shoppers.

Additionally, email marketing has the advantage that no one can take the channel away or tax a business with ad fees. It's an owned channel.

One of the essential email automation campaigns is the abandoned cart recovery mail. A staggering 69% of online carts are being abandoned by users. The good news is that 45% of cart abandonment emails are opened and approximately 10% return to complete their purchase.

Affiliate Network

Affiliate networks don't directly publish products on their sites. They instead act as a link to 'publishers' aka affiliate, which can range from anything from a comparison platform, relevant blogs and online publications, email, loyalty websites, search engines, and personal websites. If a retailer looking to diversify outreach and engage with new audiences, affiliate marketing sites are the answer. There are hundreds of choices, like Shareasale, Clickbank, and PartnerAds. The process works by the seller submitting a feed to the company, whereupon specific publishers get the choice of which products they want to promote on their sites. Then a commission is taken between the advertiser and publisher based upon clicks and sales (Engelhart, 2018).

2.1.7. E-commerce in the transport sector

An important e-commerce sector that significantly contributing to the growth of the e-commerce landscape is the ride-hailing sector which is often considered a "disruption" in the industry when it's specially integrated with a multi-sided platform (Nabil et.al, 2021).

As for ride-hailing, we see that companies in Southeast Asia are not just providing transport services but also a whole range of offerings, including food delivery and financial services. Food delivery services are the effect of a essential shift in consumer behavior since 2018. Silviana, (2019) stated Formerly such services were employed only rarely by a small group of users, it is now common for professionals and families to order food online for everyday meals and special occasions. Food delivery services have become popular in metro areas. According to Google Trends, queries for online food delivery brands have grown more than 13x in Indonesia over the last four years.

In 2019, ride-hailing companies in Southeast Asia are not just providing transport services but also a whole range of offerings, including food delivery and financial services. Ride-hailing has more than quadrupled in value from US$3 billion in 2015 to almost US$13 billion in 2019. The sector has the latent to exceed US$40 billion by 2025, driven by the flourishing food delivery sector (Silviana, 2019).

security challenges faced in regulating e-commerce

Governments around the world are aware and acting to the context that the Internet and e-commerce need to be regulated. The Indian Parliament, for example, has passed an Information Technology Act, which puts down the framework for electronic commerce in India, while other European and U.S. governments are in the process of framing their own laws to regulate the Internet. Such regulations have significant meaning for the prospects of e-commerce in emerging economies like India, and for developed countries in the West (Hunter, 2000).

India's e-commerce act is fascinating due to the fact it shows developing countries have recognized the importance of providing mechanisms for innovation in electronic commerce. India has many issues to deal with, but it clearly shows that the act is an important way of bypassing a series of intermediate steps to an electronic commerce environment as its stated by Hunter (2000). The other interesting thing is as it reflects the dominant political culture. The Indian government has taken a view as electronic commerce is something which strongly needs to be regulated so that it will not get out of control. It's fascinating to see the degree to which the Indian central government wants to control various aspects of the electronic commerce process. This is primarily seen in areas like the new central government regulatory authority created to

license trusted third parties for public key encryption. It is also seen in the central tribunal for adjudication of cyber disputes. Clearly, the Indian law also gives fairly strong powers to the police to seize and have access to records of cyber-crimes like hacking. The interesting point as an extension from the Indian Act to other countries is that lots of governments see e-commerce and the Internet generally as something they can control while it is still in its nascent stage.

Nations which are known to minimally exercise public information censorship and personal privacy conventionally are not considered as highly controlled but regulated, examples of such countries are the United States and United Kingdom. The U.S. government for instance has made several attempts to control certain aspects of the Internet. There have been proposals to intercept e-mails by government authorities. In the same way the United Kingdom authorities proposed and devoted departments to the interception of communications; this suggests that Internet service providers and other carriers should provide a mechanism by which government agencies take a look at suspected communications. This has raised all sorts of concerns among libertarians and free speech advocates in the U.K.

In England, it is not clear whether the bill will go ahead in its current form or whether the requirement for inception of communications will be removed. This has also happened in the United States in number of instances the court's argument was that while controlling contents the government would be circumscribing free speech. In that sense the Indian approach is no different from such approaches. It's just more obvious in the Indian act because it was pushed through without too much consultation and discussion. It remains to be seen whether anyone will challenge the Indian government's approach. In the past, net entrepreneurs strongly favored self-regulation. This approach worked in the early stages of the internet, but only before e-commerce became a big issue. Christmas 1999 for example faced a significant critical mass of people in the U.S. shopping on the net. The U.S. government realized that it had to have a tax regime for the net just as it does for real-world commerce. And on the previous Christmas, the issue was not focusing about taxation but consumer protection because lots of websites didn't provide the products that had been ordered or provide with secure transactions. This gave rise to the argument that consumer protection should be built into e-commerce in the U.S. Lately we've seen concerns about the private data that is provided to websites by consumers and how these websites use this data. Governments have been relatively unsure on how to regulate these

activities, but lately they have realized that these are transactions in a commercial environment like any other and regulation is inevitable. The debate is about how to do it more profound (Hunter, 2000).

As e-commerce is dynamic and growing up new business model at a fast pace, it's imperative that laws and administration needs to keep pace in meeting the challenges posed by such models to ensure its appropriate governance. Mathew (2015) stated that, for regulating this sector major considerations need to be met in addressing basic matters such as electronic payment and how electronic transactions are going to be made, intellectual rights, negotiable instruments, mobile commerce, protection of e-consumers and e-taxation.

According to estimates by internet giant Google, the value India's enlarging e-commerce business is estimated to propel from $20 billion in 2015 to $70 billion by 2020. e-commerce activities are extremely complex and diverse and the present laws in place are inadequate to govern it. Monitoring is also difficult task and activity can't be kept under the jurisdiction of a single department or ministry and therefore there needs to be a proper regulatory framework developed with close coordination between different governmental ministries (Mathew, 2015).

2.1.8. E-hailing channels and platforms

A key value proposition of digital platforms is that they can offer their users (both platform workers and customers) access to a suite of financial services. Distributing financial services enables platforms to diversify their revenue stream, increase platform participation and create loyalty between the platform and its users. By partnering with platforms for distribution, financial service providers (FSPs) can access an established customer base, payments channel and communications channel. Insight2impact's research shows that the number of platforms that offer financial services in eight African countries has grown from 46 in 2018 to 186 in 2019, with 52% offering at least one financial service.

E-hailing platforms already playing a significant role in the provision of financial services. 20% of the 251 e-hailing platforms identified in insight2impact's global scan offer at least one type of financial service. Insurance was the most commonly offered financial service, with 17% of platforms offering insurance. A further 2% of platforms offered credit, and less than 1% offered savings products.

A gap in the knowledge on e-hailing platform participants and their needs. What is less well known about e-hailing platforms is who the participants are, what their relationship with the platform they work for is like, what their financial needs are and how platforms can go about meeting these needs. Therefore, it's essential to carry out a case study on YegoInnovision (Yego), a cab and moto e-hailing platform in Rwanda. The study collected demand-side information on Yego platform participants to better understand their livelihoods and financial service needs through in-depth qualitative interviews with 15 motorbike drivers and five cab drivers.

A quantitative study was rolled out to 86 motorbike drivers and 298 cab drivers. Transactional and meter usage data collected by Yego was also utilized and gained the upcoming insights. High levels of trust between Yego and drivers, and clear benefits of using the platform. Moto and cab drivers were highly complementary of Yego, highlighting the prompt, efficient and friendly service they received from Yego's 24/7 call centre. Many reported that they trusted Yego and found the platform to be reliable. The qualitative interviews also revealed. The information platform is connected to the mainstream domestic online payment channels, resulting in citizens preferring e-hailing. With a smartphone, citizens do not need to pay cash for a ride, and drivers are less troubled with having to dole out change, which saves time for both the supply and the demand sides, and affects taxi driving behavior. This behavior is called the payment event, which occurs after a drop-off event. A payment event starts with a drop-off point and ends at the first moving point, which means the duration of payment is the time interval between two points. Based on the definition above, there could be small mistakes in the extracted payment events. For instance, at midnight, the destination of the ride is often a bar, hotel, residential area, etc., where drivers also like to wait for passengers at night. Thus, drivers remain standing for their next orders after dropping off passengers. This situation results in a large error in the duration of payment. In order to eliminate the interference of remaining motionless on the spot after a drop-off, the frequency distribution of the durations of payment and found that durations of more than 5 min accounted for less than 0.1%. Therefore, 5 min was set as the threshold of payment events, and payment durations that exceeded this threshold were eliminated (Yego, 2020).

2.1.9. E-commerce features in e-hailing services

This section discusses the key features inbuilt in standard e-haling applications, and their impact in building a competitive advantage in e-commerce.

Booking Options

The desirable feature includes user registration requirements, support for multiple languages, free calls (VoIP), choose taxi, booking on future dates, ease of communication, reduced wait time, ease of scheduling and dispatching and maps. While comparing normal taxi and e-hailing wait times, (Rayle, 2014) noted that of the total respondents 35% (waited less than 10mins) for normal taxi and 67% (waited for less than 10 minutes) when using e-hailing. Booking features need to allow for push notification and details on the new booking such as method settling costs, journey and maps, confirming bookings and cancellations. How to book a ride matters a lot to many consumers, and since it is a contributor to more transparent, certain and accountable taxi operations.

Driver Information

Vetted driver information is critical for service delivery. Operators need to provide relevant information for verification such as license and tax number during the registration process. Drivers are encouraged to update their schedules and status information constantly to assist in dispatch services. According to Ackaradejruangsri (2015) some of the critical information that would be helpful to customers included operator's name, vehicle registrations, telephone number and an advance estimated cost. Reports provide reviews on trip statistics (mileage, earnings, and payroll) are of added advantage to the driver. Similarly, are voice commands that can assist when drivers are engaged on the road.

Tracking

According to Rainer, Turban & Potter 92007) the major characteristic in the smartphone technologies of mobility and broad is a valuable feature. They acknowledge that "ubiquity, convenience, instant connectivity, personalization and localization of product and services" are have broken the challenges of space and time. As such the drivers and passengers in the evident that that a ride is booked, they are able to track each other precisely, easily and quickly; and most

importantly in a real-time manner. The Apps can also track historical data for future reference such as re-bookings and payment details.

Security Features

The People's Republic of China's Ministry of Transportation recently published measures seeking to regulate this emerging industry, and will come into effect on November 1, 2016 (Interim Measures for the Administration of Operation and Services of E-hailing Taxis - August 2016). The Measures contain a data localization requirement under which operators of e-hailing platforms will be required to locate their servers within mainland China. In addition, personal information collected on e-hailing platforms and business data generated during their operations must be stored and used within mainland China, and such information and data must be retained for at least two years. The measures also require operators of e-hailing platforms to adopt systems for the administration of cybersecurity and technical security measures. In the event of an information leakage, operators of e-hailing platforms must report to the relevant competent authority without delay and take timely and effective remedial measures. E-hailing platform operators that illegally use or disclose passengers' personal information may face a penalty. They may also be subject to civil liability for compensation and criminal sanctions.

Costing Model

Using the Apps, advance-costing models allow passengers to predetermine the cost of them rides. This allows passengers to compare with other available options for competitors in the market. In most cases, the app to determines the cost of the journey and automatically bills a passenger when the ride is completed. The Apps have variables costing models depending on factors affecting supply and demand for service. For instance, Uber charges by distance (for speeds over 11 miles per hour) which is claimed to be lower and cost effective than ordinary taxi. It has been argued that this is only the case when the journey costs above $35 (Uber Case Study, University of New Mexico, 2015).

Payment Processing Methods

Rayle (2014) while investigating the motive for using ride-sourcing using different modes found that the top motives were ease of payment (25%), short wait time (17%) and ease to call hail a

taxi (11%). The ability to link passenger's credit card to the App allows for secure and convenient settling of payments. In Kenya, Little Cab allows riders to redeem Bonga points for a cab ride. Besides that, customers are able to pay for cab fare using Mpesa or Visa and MasterCard branded bank cards.

Rating

The Apps offer a better review of services offered since passengers appraise the operators. Poor rating can lead to separation of engagement terms with the App providers. This encourages professional behavior and respect from both passengers and operators, and foster greater communication between the customers and operators.

2.1.10. Stakeholders in e-hailing business

E-hailing is the term used for ordering a car, taxi, limousine, or any other form of transportation pick up via electronic devices including, computers or mobile devices. There are currently at least 23 e-hailing apps available in Malaysia. E-hailing is part of a wider development in the economy towards a "sharing economy", where private citizens can share assets and services over a platform which efficiently connects users and providers. E-hailing, and the sharing economy in general, have broadly been seen as a positive development for consumers, who have gained access to greater choice and generally lower prices. However, e-hailing has also disrupted the traditional taxi industry, prompting calls that the services be banned or at least regulated to the same standards as traditional taxis. In Malaysia the government has introduced a new set of regulations, which entered into force in July 2018, but with a one-year moratorium to give drivers and platforms time to adjust.

This study is based on interviews and focus group discussions with a range of different stakeholders, grouping them as e-hailing operators and drivers, government regulators and academics.

2.1.11. Challenges in practice of regulating e-hailing business operation

E-hailing services are known to be on-demand vehicle acquisition that relies on network dependency and use of a specific digital application through the Internet. 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 Systematic

Literature Review (SLR) related to the e-hailing industry was used by employing the inclusion criteria of keywords generated from the literature data pool. The legalization of e-hailing services in Malaysia had spurred the growth of the industry. With the establishment of the Transportation Network Company, which was a positive sign for e-hailing to continue to flourish, the industry was considered as a complement to the existing public transportation system. The growth projection showed that e-hailing services will continue to be part of the Malaysian transportation sectors and would remain competitive in contributing to the domestic economy. However, some barriers would deter the progress of e-hailing services, such as over-regulation by the government (Jais et. al, 2020).

The discussion on e-hailing services in Malaysia was divided into three central themes, which were the adoption of e-hailing services, issues on the e-hailing services and a future outlook on e-hailing Services. Jais et. al, (2020) stated MyTeksi was a forerunner and a brand name for Grab created by a start-up company in Malaysia. Managed by Anthony Tan and Hooi Ling Tan in 2012, the company pioneered and introduced the concepts of e-hailing service, which initially focused on utilizing the existing taxi fleet, rather than private vehicles, to the Malaysian consumers. As of June 2013, the service had on average of one booking per every eight seconds, or almost 10,000 bookings per day (Cosseboom, 2015). Meanwhile, Uber was introduced in Kuala Lumpur, with a soft-launching in October 2013 (Gabey Goh, 2014). However, only the premium services, Uber Black, were offered. The services also differed from the concept of MyTeksi, as privately-owned vehicles were used as the main transportation fleet. This form of service caused Uber to be deemed illegal as the specifications did not meet with transportation laws of Malaysia at that time (Fatimah Zahirah, 2017). Hence, Uber had to withdraw the investments made in Southeast Asia by April 2018 and was quoted with enormous losses due to the hasty exit. This turn of events made Grab the single largest e-hailing service company and most significant market shareholder in e-hailing services with operations in almost every major city in Southeast Asia. The success of Grab saw the company having a network of 2.7 million drivers across South East Asia, operating in eight countries and servicing over 196 cities (Grab Malaysia, 2019). Rebranded as Grabcar in 2016, the company offered not only e-hailing services but also other mobility services currently such as Grab Food and mobile payment. The e-hailing service market had since been saturated with new e-hailing start-up companies that tried to gain

some share of profit in the market. 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 published by Frost and Sullivan (2016) that illustrated the preferences and behaviors associated with e-hailing services by consumers. Poor public transport infrastructure, as well as the presence of better vehicles at lower fares compared to local taxis and public transport systems, were among the reasons for the growing interests in e-hailing services (Frost & Sullivan, 2016). The report was based on Uber, an e-hailing company before the service left the Malaysian e-hailing market also revealed that inaccessibility to parking spaces had also contributed to the uptake of e-hailing services instead using personal vehicles. This was further highlighted through the increase in the frequency of the e-hailing service being used during weekdays and involved routes between home-office and meetings-home. The same report also indicated that 30% of the respondents chose e-hailing service as the primary mode of transportation, with 14% of owned personal vehicles (n = 140).

2.1.12. E-hailing service

There are many issues faced in the development of the E-hailing car platform, including external policy pressures, including how to adapt to the platform role, balance the difference between supply and demand, and fulfill the social governance function beyond the economic matching function. The main challenges and bottlenecks include:

1) The E-hailing car policy have limited the economics of platform. The foundation of the platform economy is the market spirit of "free choice". There is no absolute freedom. Any economic action must be established under certain management and control. The original intention of the E-hailing car policy was to safeguard consumer rights and regulate the industry's competitive order. However, in terms of actual development, in different regions, the competent authorities of the industry have different goals and different ways, and the effects of implementation are different. On the whole, most cities have implemented strict management, which forms a constraint on the economic nature of the E-hailing car platform.

2) As a matching organization, the E-hailing car platform should keep neutral. However, as the market scale expands, the industry standard requirements increase, and the power of the E-hailing car platform expands. Almost all E-hailing car platforms are involved in pricing. The

function of bargaining through the platform is compressed. Most platforms charge commissions, management fees and other methods are more concealed, and the proportion in the price formation structure has not decreased significantly. Part of the platform that concurrently operates B2C and C2C services also has the problem of opaque and unfair distribution mechanism.

3) The platform not only undertakes the function of economic matching, but also undertakes social functions such as safeguarding consumers' lives and property, maintaining information security and protecting privacy. Due to the ineffective review of the E-hailing car platform and the imperfect security system, many vicious incidents of passengers' life and property safety have been violated, which has had a serious negative impact on the credibility of the E-hailing car. In terms of information security, in May 2015, China's Internet vulnerability exposure platform, Wuyun.com released 59 security vulnerabilities about taxi software, involving as many as nine manufacturers. In 2016, a serious data breach occurred in Uber, with the name, email and phone number of 57 million passengers, and the names and driver's license numbers of about 600,000 American drivers leaked. Whether it is possible to establish a comprehensive and reliable safety management system has become a sword hanging on the head of the E-hailing car platform

2.1.13. Conceptual Framework

The following conceptual framework will help to understand the relationship between dependent and independent variables.
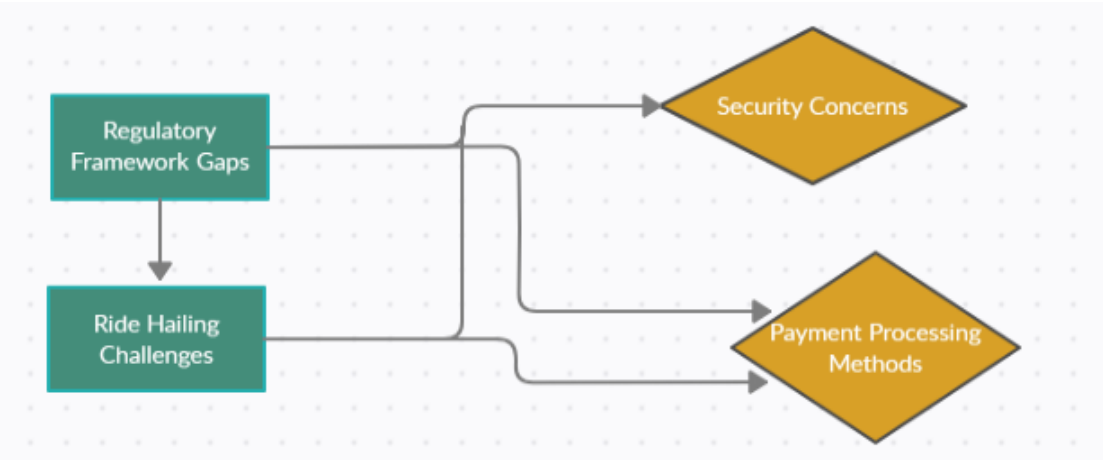

Figure 1. Conceptual Framework

2.2 Empirical Literature Review
2.2.1 Ride Hailing Challenges in Developed Countries

America and Europe

In their efforts to expand internationally, global players in the e-hailing market are often hindered by the nature of traditional on-demand ecosystems and the complexity of local regulations. As a result, the e-hailing market remains fragmented, with industry giants often competing with regional heavyweights and local niche players:

The North American market is where the first successful TNCs were founded and where the most innovative business models and application features are usually introduced before they are deployed in other markets. Uber and Lyft – both headquartered in San Francisco – have an effective duopoly, with a market share of over 90 percent. Other ride-hailing platforms have entered the market, such as Bolt (formerly Taxify, originating from Estonia) and Gett (originating from Israel, following the acquisition of Juno). However, these players remain relatively small.

South America is a fragmented market, with many local players operating in one city or a limited number of them. This market is considered to have significant growth potential due to its increasing population and relatively low incidence of personal car ownership. Apart from a number of small, local players, most e-hailing business is done by big brands such as Uber, Didi (through the Brazilian e-hailing app 99), Free Now (which grew out of the merger of Mytaxi, Clever Taxi, Beat and Kapten) and Cabify (which originated in Spain).

The European e-hailing sector is a crowded market made up not only of international ride-hailing platforms, but also a large number of start-ups that entered the market in recent years. Due to high disposable incomes, an advanced level of digitalization, and ever-tightening regulations on the use of personal cars in city centers, Europe is home to some of the world's most active cities for e-hailing, which include London, Paris and Berlin. However, variations in the regulatory framework between cities – and regular "changes of gears" in terms of regulation – have made it difficult for ride-hailing platforms to expand quickly in Europe. This factor also

partly explains why "taxi ride-hailing platforms" are more abundant in Europe than in most other regions of the world.

2.2.2 Ride Hailing Challenges in Developing Countries

Asia and Africa

Africa, like South America, presents major opportunities for ride-hailing platforms due to strong economic and demographic growth, as well as relatively low penetration of personal cars. The high rate of mobile phone ownership and availability of efficient payment mechanisms, such as M-Pesa, also make it an attractive market. At the same time, it is the most fragmented region, with little penetration of large ride-hailing platforms in, for example, Sub-Saharan Africa. Countries such as Kenya and Tanzania house a number of emerging ride-hailing platforms that have started to develop presence in multiple cities, but there is still a long way to go in terms of funding, regulatory and political stability, etc., before real "regional heavyweights" emerge.

The Asian region contains a number of high-growth/ high-potential markets, such as China, Russia, India and Indonesia. In China, DiDiChuxing is the clear winner after acquiring Uber's local operations. A similar scenario has played out in Russia, where Yandex. Taxi enjoys market leadership after acquiring Uber's operations in the country. A peculiarity of the Russian market is that, even though app-based platforms have been developed, a substantial percentage of e-hailing bookings are still done over the phone.

In India, Uber and local giant Ola are in a duopoly, with over 90 percent of the market between them. A remarkable fact is that Ola and Uber have a major shareholder in common – SoftBank, which is effectively funding the competitive struggle between them. Ola currently has the edge over Uber, with more cities served, a higher number of drivers, and more rides completed. However, while India is an attractive market due to strong economic and demographic growth, events may well unfold in a similar manner to the way they did in China and Russia, with one of the two major players leaving the market.

In Southeast Asia, Uber has sold its operations to local heavyweight Grab. The Singapore-based ride-hailing platform is active in eight countries and 170 cities, and thus a key player in the region. With the backing of big names such as SoftBank and Temasek, car OEMs Honda and

Toyota, and even other ride-hailing platforms such as DiDi, Grab has a significant market share. Only one other player, Go-Jek – backed by Google, Tencent and Temasek – has a significant position in the region.

2.2.3. Security Barriers hindering adoption of ride hailing service

The global market is expected to grow due to the booming tourism industry, increasing urban population, rising ride-hailing apps penetration and escalating personal disposable income. Key trends of this market include the emergence of autonomous vehicles, rising demand for new energy vehicles (NEV) in China and growing preference for bike-sharing in the U.S. However, there are some factors that can hinder the market growth including stringent regulation and intense competition.

The world faces human-made hazardous weather events such as heat waves, droughts, floods and wildfires in dimensions which have never been seen before. A crucial contributor to this negative trend is the constantly growing transportation sector. Nearly a quarter of the global energy related carbon dioxide emissions can be traced back to transportation. In addition, most urban regions suffer from traffic congestions which lead among others to local emissions, the loss of time and noise pollution.

The concept of ride-sharing, i.e. users share their ride when their trips match each other in time and place, is one approach to reduce the number of cars and thereby the negative transportation related effects. In addition, there are benefits for the individual user, as fuel, tolls and vehicle costs are shared.

Previous studies, in which simulations based on real travel data are performed, have shown that by ridesharing, the number of cars and the kilometers travelled can be significantly reduced. Even if there are already several ride-sharing services on the market, ride-sharing is still no widely-accepted mean of transportation. Research to investigate user behavior and acceptance of ride-sharing is still limited, especially testing the acceptance of ride-sharing in real-life settings.

2.2.4. Development of legislative act for E-commerce in Ethiopia

The MINT is the principal government organ in charge of ICTs in general. It has the powers and duties to initiate policies and laws in ICT areas. The MINT also sets and implements standards to ensure provision of quality, reliable and safe ICT services. The Ministry is, therefore, the

principal policy organ concerning cyber security in general and cybercrimes in particular. Each regional state has, however, its own Communications and Information Technology Agency entrusted with implementing on the ground laws, policies and standards on ICTs adopted at the federal level. The Ethiopian Information Network Security Agency (INSA) is a parallel organ with statutory powers to formulate national policies, laws and standards to ensure security of information and computer based key infrastructure and oversee its enforcement.

Whilst the Ministry is bestowed with the broader mandate in connection with ICTs regulation in general, INSA is specifically dedicated to deal with information security. In so far as initiation of legislation is concerned, the MINT has so far drafted E-commerce legislation (in cooperation with UN Economic Commission for Africa), and INSA has recently drafted comprehensive computer crime legislation. Lawyers at INSA have played a key role in the crafting of the telecom fraud offence law. Moreover, the Agency claims that it saved the country substantial costs over the past few years, in particular by prosecuting telecoms fraudsters. With respect to cyber policing and enforcement, the Federal Police Commission has the primary responsibility to investigate crimes relating to 'information network and computer systems. This no doubt relates to investigation of cybercrimes committed against or through information networks and computer systems. INSA also assumes significant powers in taking all the necessary 'countermeasures' to defend cyber or electromagnetic attacks on information and computer-based infrastructures, or on citizens' psychology. Moreover, it provides assistance and support in respect of preventing and investigating cybercrime, to (federal) police and other organs empowered by law. The draft computer crime proclamation gives both the Federal Police and INSA enforcement powers with a leadership role to be assumed by the Federal Police Commission which shall establish a special 'cyber unit'. The National Intelligence and Security Service (NISS) has some generic powers that might be construed as covering the right to investigate cybercrimes. It, for instance, has the power to 'follow up and collect intelligence and evidence on other serious crimes which are threats to the national interest and security', and to work in collaboration with other relevant organs. Given the potentially serious damage that cybercrime causes particularly when committed against critical infrastructure, it is likely that NISS might be involved in the investigation of cybercrimes especially in collecting intelligence on cybercriminals. Yet, it might be necessary to empower various organs in the investigation of

cybercrime, and it is equally important to provide details (in subordinate rules) with regard to the requisite institutional coordination that must exist between these organs to ensure that they all work towards the same goal. The constitutional devolution of judicial power is also based on the federal arrangement. The law that determines the judicial power of federal courts provides that federal courts shall have criminal jurisdiction, among others, over offences regarding the 'security and freedom of communication services' operating within more than one region or at the international level. The terminologies apparently capture communication services and networks such as the Internet. With regard to federal courts, the law confers upon the Federal First Instance Court – the initial tier of federal courts – the jurisdiction to try the criminal acts indicated under Art 4(7) of the Federal Courts Proclamation, including cybercrime. In contrast, the Federal High Court is given first instance jurisdiction to try computer crimes under the draft computer crime legislation. A cursory reading of Art 4(7) of the Federal Courts Proclamation implies that regional state courts may adjudicate cybercrime cases that are committed within their own territories, so long as the crimes do not have any spill-over effect on other neighboring regional states or even countries. However, state judicial jurisdiction on cybercrime is to be set out by the respective court proclamation of each regional state. In practice, there is no much clarity on the jurisdiction of regional courts in entertaining cybercrime cases. For instance, the Southern Nations, Nationalities and Peoples Regional State (SNNPR) Courts Proclamation is vague, if not silent, on the jurisdiction of regional courts in cybercrime cases. It generally provides that 'regional courts have jurisdiction over regional matters except those expressly reserved to federal courts. The conclusion that can be derived from this provision is that the competent court of that state will entertain the case if a cybercrime incident takes place within the regional state. However, the level of court in the regional state which entertains cybercrime cases is not clear under the law.

The legal challenges of electronic transactions noted above have been the subject of extensive legislative efforts at international, regional and national level. At the international level, for instance, the United Nations Commission on International Trade Law (UNCITRAL) developed Model Law on Electronic Commerce in 1996, and Model Law on Electronic Transactions in 2001 which have served as the basis for legislation enacted in several countries. The United Nations also approved the Convention on the Use of Electronic Communications in International

Contracts (UN E-Contracting Convention) in 2005. In the African context, the African Union (AU) adopted African Union Convention on Cyber Security and Personal Data Protection which covers three major areas, including electronic transactions. All these international and regional legislations are intended to remove obstacles and enhance legal certainty in electronic transactions (Yilma, 2015).

2.2.5. The Ethiopian legislative response

Electronic payment laws

The process of formulating E-commerce related legislation in Ethiopia goes back to 2007 when the Ethiopia Commodity Exchange (ECX) was established by virtue of Proclamation No. 550/2007. ECX, inter alia, provided a centralized trading mechanism in which offers to sell and bids to buy are coordinated through electronic order matching system. The Proclamation recognizes the 'validity' of electronic signature in relation to transfer of funds to and from ECX and its members' accounts established in these same institutions for the purposes of exchange transactions. Even though its applicability is limited only to transfer of funds to and from ECX and its member's accounts, this proclamation is perhaps the first legislation to recognize electronic transaction in Ethiopia. Arguably, the validity and enforceability of electronic records is also implicitly recognized under this legislation. Another important legislation is the National Payment System Proclamation No.718/2011 which recognizes the legal validity and admissibility of electronic records and electronic transactions in relation to transfer of funds. Article 21 (1) of the proclamation reads: 'Where any law provides that information or any other matter shall be in writing, such requirement shall be deemed to have been satisfied if such information or matter is rendered or made available in an electronic form and accessible so as to be usable for subsequent reference'. Accordingly, electronic records have the same legal effect as written documents provided that the electronic record is "accessible so as to be usable for subsequent reference". This requirement is a standard to be met by electronic records in order to be considered as meeting the "writing" requirement.

According to these rules, any kind of electronic transaction which is used to identify the signatory and to indicate the signatory's approval of the content of an electronic record meets the 'transaction' requirement equivalent to handwritten transaction. Although these laws focus on

identity of the signatory as well as the approval of content, all types of electronic transactions cannot perform functions identified as characteristic of handwritten transactions. Furthermore, these laws ignore other fundamental legal issues of E-commerce such as integrity, confidentiality and non-repudiation. Adopting this approach is also a significant deviation from the international model laws noted above. In sum, it can fairly be concluded that the current legal framework in Ethiopia is not fully responsive to the changing needs of the information society and hence more comprehensive and conducive legal frameworks are needed.

The draft e-transactions security laws

The importance of having comprehensive and conducive legal framework on electronic commerce is recognized by the Ethiopian government since 2009 following the adoption of different ICT related policies and strategies. Moreover, Ethiopia has adopted e-Government Strategy in 2011 and the development of robust national Public Key Infrastructure (PKI) has been identified as one key strategic project of this strategy. The objective of the PKI project was to facilitate electronic transactions and provide the security required for such transactions. Data encryption and digital transaction for authentication, integrity and non-repudiation purposes are among the services that the PKI is expected to offer upon implementation. The need for electronic transaction security and electronic transaction laws has also been specifically recognized as one of the critical success factors of the PKI project. Although the government of Ethiopia has been proactive in this regard, the laws are still at draft stage. The MINT, for instance, had drafted electronic transaction and electronic transaction laws following the adoption of the strategy. In the meantime, however, the responsibility to develop the national PKI and draft electronic transaction law has been relegated to INSA MINT and INSA have finalized the development of electronic transaction law and electronic transaction law respectively and these laws are set for public consultation (Yilma, et. al.,2015).

CHAPTER THREE
RESEARCH METHODOLOGY

3.1. Introduction

In this chapter a research methodology and data collection instruments are discussed in detail to be employed in the research process. It includes; research design, data collection instruments, population and sampling method, data collection procedure, validity and reliability, data analysis methods, ethical considerations are addressed.

3.2. Research Design

A research design, which is a function of the research objectives, is defined as "a set of advance decisions that makes up the master plan specifying the methods and procedures for collecting and analyzing the needed information" (Burns & Bush, 2002). An appropriate research design is essential as it determines the type of data, data collection technique, the sampling methodology and the budget (Hair et. al., 2003). To achieve this, in an attempt to assess e-commerce regulatory issues and challenges of ICT supported ride hailing services in Addis Ababa both descriptive and explanatory type of research designs with quantitative approach have been employed.

In descriptive research the study provides a description of relevant aspects of the situation and gives numerical picture of the phenomena. A descriptive type of research design is used to narrate the facts and characteristics of current e-commerce regulatory framework issues and challenges related to security and payment processing methods of ride hailing business in Addis Ababa.

3.3. Research Approach

Both quantitative and qualitative research approaches were considered as more appropriate paths to determine the extent of a challenge and issue by quantifying the discrepancy and presenting the qualitative analysis results. This study also assesses the regulatory framework issues and challenges related to security and payment processing methods hindering regulation of the e-commerce sector in case of ride hailing operation so that it has answer to the question of the research by quantifying the divergence, quantitative research approach answers questions

through a controlled deductive process, allowing for the collection of numerical data, prediction, the measurement of variables, and use of statistical procedures to analyze and develop inferences from the data.

3.3. Sampling Design

3.3.1. Target Population

The target population of this research were operator companies' executives working in management position, authority office experts and educated drivers available in TNCs. The study population was at a city level and educated drivers of the sample organization are found to be homogeneous as the issue of e-commerce regulatory framework gaps and issues, challenges hindering service provision related to security and payment processing methods in Addis Ababa as it affects stakeholders

Currently there are more than 15,000 registered drivers working under 8 ride hailing service operating companies in Addis Ababa. The research census study as the number of educated drivers were few. Therefore, out of 9,000 target populations of the research selected samples were 2 interviewees from Ride and Seregela TNCs having an administration executive designation, a head in transport service system improvement directorate from Addis Ababa Transport Bureau and 382 educated drivers found in selected sub cities, in Addis Ababa. For this study, lists of TNCs in each sub cities have been collected from ministry of trade and industry data base as a readily available list of population elements (Ministry of Trade and Industry Database, 2016-2019).

3.3.2. Sampling Techniques and Sample Size

Sampling involves any procedure that draws conclusions based on measurements of a portion of the population. In other words, a sample is a subset from a larger population (Zikmund,et.al, 2008). Hence, taking into account the nature of the study and structure of the companies, the researcher uses judgment (purposive) sampling technique as it occurs when elements selected for the sample are chosen by the judgment of the researcher. Researchers often believe that they can obtain a representative sample by using a sound judgment, which will result in saving time and money. In order to get large number of respondents, minimize costs and to get customers who have well experience in providing ride hailing services.

Sampling frame: To establish the sample frame for drivers, an anonymous list of general transacts in sub cities were obtained from both operators in the ten sub cities, from Akaki Kality sub city, Kolfe, Gulele, Lideta, Nefas Silik, Arada, Yeka, Adis Ketema, Bole and Kirkos sub city.

Sampling method: two stage sampling was used to undertake this research. In the first stage the researcher selected four sub cities in which samples were taken and then selected the required sample size from each sub cities in stage two. This method of sampling often is more convenient when the population is much dispersed. It is more manageable because of time, expense, and convenience.

First, Judgmental sampling was used to select the four sub cities that are considered for the study. Accordingly, retrieved a very helpful data from TNCs app developer's database regarding those sub cities which had the highest number of general transactions, which were first to be considered and selected. There by Arada, Nifas silk Lafto, Bole, and Lideta were selected during first stage of investigation. These four-sub cities account 61% of total general TNC found in Addis Ababa.

Sample size and selection: sample size is a process of selecting a sufficient portion of driver population for the purposes of generalizing the findings. The aim of using sampling method is to adequately manipulate the large number and reduce the cost of presenting the interview to the entire population. As already mentioned above out of 15,000 drivers, 9,000 are taken as the total population for this study. This research uses the formula for estimating the sample size provided by (Yaro Yamane, 1969) which was cited in (Obasi, Ekwueme, 2011).

Sample size obtained as;

$$n = \frac{N}{1 + N\,(e)^2} = \frac{9,000}{1 + 9,000\,(0.05)^2} = 382 \text{ drivers}$$

Where, n – designates the sample size the research uses (Educated drivers).

N - Designates the total number of drivers in the target population.

e – Designates maximum variability or margin of error 5% (0.05).

1 – Designates the probability of the event occurring

Then for purposes of administering questionnaires, the researcher specifically has selected sufficient number of samples of drivers from these sub cities. To do this the researcher sent google form link to driver's telegram account from the selected TNCs whose contact details were availed. In order to get this areal much dispersed sample and in order to save time and cost, those respondents who didn't respond to the presented questionnaire were not considered on the survey. So, the sampling was based on their response availability and status questionnaire response made until the required number of samples have reached with those who are willing to complete and send.

Finally, ride hailing service regulation is a strategic issue which primarily focusing on educated driver and selected employees from TNC and authority offices, thus the interview is purposely administered to service operators and authorities.

3.4. Data Collection Methods and Tools

In order to conduct this research basically primary data was collected on companies involved in ride hailing service category. In addition, secondary data was used in support of primary data.

The data was collected using questionnaire and interviews which contained items that measure the status of e-commerce regulation gaps and challenges hindering regulation and pinpointing course of action,

The e-commerce regulatory framework gap measurement tool was developed from Daniels and Carraher (2000) and the other variables measurement was adopted from Kamua et al. (2013). Then after incorporating constructive comments, the revised questionnaire was distributed to the respondents by telegram on Google forms. It has three parts. These are: - Background Information (Demographic), service provision gaps, challenges hindering promotion and concerns related to privacy and safety. The first part was to obtain background information of respondents that were relevant to the study. The rest part of the questionnaire was to measure framework obsolescence level, factors hindering promotion and expansion of e-hailing service provision by using a five – point Likert response scale developed by Frone et al. (1992)

&Voydanoff (2004) includes strongly disagree (1), disagree (2), neutral (3), agree (4) and strongly agree (5).

In addition to other close ended and open-ended questions and observations, the semi structured interviews (SSI) were included in scaled questions.

Questionnaire is not the best term for the compilation of Semi Structured Interview questions, because that word connotes a fixed instrument to be precise, rather than the flexible, interactive approach of SSI questions. Instead, it's preferred to create the agenda for the interview, the outline of planned topics, and questions to be addressed, arrayed in their tentative order.

Interviews are appropriate for gathering the views of a few numbers of people about a Particular phenomenon (Stroh, 2000). In this study interviews have been be used mainly to gain general picture of ride hailing service regulation practices.

The interviews took place with TNC operator and government authority officers of the respective organizations which has been selected as sample. To achieve the aim of this research, questions were designed and have been presented to the employees. The first part of the interview created rapport with the interviewee and has been used to collect demographic data such as age, level of education, position and experience. The second part of the interview was designed with the purpose of collecting data about e-hailing concerns in Addis Ababa in order to ensure the comprehensiveness of data, the interviews consist open ended and close ended statements.

Interviews were designed after reading various literatures extensively. Some of them were adapted from prior studies and previously designed interviews but with certain modification to feet with Ethiopian context and the objective of the research

3.5. Data collection procedure

The researcher was seeking permission from the targeted organization and permission for the survey was granted by the organization. After permission granted, the questionnaires were distributed to the respondents by telegram using links for Google forms. Respondents were assured of the confidentiality of their responses and were told that completed questionnaire was collected directly through the google forms link and there was no other person seeing the completed questionnaires. Structured questionnaires were sending through telegram based on the

location of the sample respondent with a short note requesting for answering all the questions and return the questionnaire on the set time.

3.6. Validity

Validity is the extent to which the results really measure what they are supposed to measure. Since the study used census study the scores represent the variable they are intended to address. Moreover, as Uma (2000) suggests adaption of items used by previous researchers is advisable because of the approval of content validity and criterion related validity of these items by previous scholars. As the variables used in the study are taken from review of related literature.

3.7. Reliability

Cronbach's Alpha reliability test was used to test the internal consistency of the instrument Coefficient of 0.7 is a commonly used as the cut of point of acceptable reliability according to Hair et al. (2010).

A pilot survey was conducted on 8 drivers from the TNCs. This preliminary analysis helped to determine whether the questionnaires were reliable and valid for data collection. Cronbach's alpha values for all constructs except one were above the recommended 0.70 value, indicating good reliability Hair et al. (2010). To asses regulatory framework issues and examine challenges related to security and payment processing methods, the alpha coefficient was 0.654, approaching Hair 's recommendation of 0.70.

In order to ensure reliability, statistical analysis was implemented to examine the internal consistency of the instruments utilized. Cronbach's alpha reliability test was used as an examination indicator to determine the reliability of the measurement scale. As stated by Nunnaly (1978) the closer the reliability coefficient to 1.00 is the better. In general reliabilities less than 0.60 are considered poor; those in the range of 0.60 to 0.80 are considered good and acceptable.

From the above statements, considering the study test results to be in the acceptable and reliable range for e-commerce regulatory framework issues and challenges of ride hailing service related to security and payment processing methods.

Table 1: Cronbach's Alpha (α) Result Measures

Variable	No of items	Cronbach's Alpha(α) Result
Service Provision Issues	12	0.643
Commerce Regulation Issues	4	0.755
Safety Concerns	11	0.856
E-payment and Operator Issues	9	0.698
E-commerce Service Operator, Regulatory body and Regulatory Framework Concerns	13	0.754
Payment and Regulatory Framework Concerns	7	0.945

3.8. Data Analysis Methods

After data collection, descriptive statistics was analyzed quantitatively using statistical packages for social sciences, SPSS version 20 for the quantitative data. The respondents' personal and work-related profile was described using frequencies and percentages. The responses collected on the dependent and independent variables were summarized and described using mean and standard deviation. Correlation analysis was done to check the strength of the relationship between the independent and dependent variables and the direction of the relationship and to understand by how much each independent variable explains the dependent variable. On the other hand, the qualitative collected data are processed by narration to describe literal quotes and case studies. This method involves restructuring of stories presented by respondents taking into account the context of each case and the different experiences of each respondent. In other words, narrative analysis is the review of primary qualitative data by researchers (John, 2018). As a result, the research used descriptive and thematic analysis to present the findings of the study.

3.9. Ethical Consideration

Every person involved in the study is entitled to the right of privacy and dignity of treatment, and no personal harm will be caused to subjects in the research. Information obtained will be held in strict confidentiality by the researcher. A written letter that explained purpose of the study was obtained from the university and provided to the stakeholders in this research. The respondents

were also assured that they were not confused and that their response was remain confidential and used for academic purpose only. Cover letters explained the purpose of the questionnaire and the right to accept or refuse to participate in the research activities were given to the respondents of this study. Any written materials were clearly cited, acknowledged and continued till the end of the study.

CHAPTER FOUR

DATA PRESENTATION, RESULT AND DISCUSSION

This chapter deals with the presentation and analysis of the data collected from sample groups of respondents: TNCs Drivers, TNCs Operator Rep and AA Transport Bureau Rep. The data from these groups were collected through close-ended and open-ended questionnaires and interview. the data analysis and findings are presented using SPSS and MS Excel. Among the 382 questionnaires that were distributed and representative of the total population 224 questionnaires were properly filled and returned which is 58.6 % response rate.

The chapter is presented in five sections: the first section is the descriptive analysis of demographic characteristics of the respondents. The second section presents descriptive analysis of the major variables of the study. The third section is about the correlation analysis between the challenges in ride hailing service and regulatory framework of ride hailing. The fourth section presents the regression analysis where how much the combination of the variables.

4.1 Demographic Characteristics of Respondents

Description of the characteristics of respondents gives some highlights about the sample population. The following sections deals with demographic characteristics of sample drivers. Descriptive statistics of frequency and percentage was used to obtain the participants gender, age, occupation status, and monthly income of respondents and presented in the following tables.

4.1.1 Characteristics of Drivers

Table 2: Characteristics of Drivers

Characteristics	Category	Frequency	Percent
Gender	Female	58	25.9
	Male	166	74.1
	Total	224	100.0
Age	18-25	44	19.6
	26-30	112	50.0
	31-40	56	28.0
	41-50	12	5.3
	51-60	-	0.0

	Above 60	-	0.0
	Total	224	100.0
Occupation states	Wage Employment	80	35.7
	Self-Employed	144	64.3
	Total	224	100.0
Employment place	Hybrid Designs PLC	158	70.5
	Seregela Ride Taxi Service PLC	30	13.4
	Other	36	16.1
	Total	224	100.0
Working Time	Full-time employed	88	39.3
	Part-time employed	136	55.7
	Total	224	100.0
Monthly income	9,999 or below	36	16.1
	10,000 – 19,999	72	32.1
	20,000 – 29,999	98	43.7
	30,000 – 39,999	18	8.1
	40,000 – 49,999	-	0.0
	50,000 – 59,999	-	0.0
	60,000 and greater	-	0.0
	Total	224	100.0

Source: Own Survey 2021

The above table showed that 166 (74.1%) of the respondents were males and the remaining 58 (25.9%) respondents were female. Majority of the age group, 112 (50.0%) of the respondents were 26 – 30, the minimum and maximum age were 26 and 47 years of old respectively. From the above finding s one can deduct that majority (> 50%) of the respondents were middle aged men. Meanwhile the sample included both men and women from the age range of 18 and 50 years.

144 (64.3%) of the total 224 valid respondents are self-employment and 80 (35.7) are taken in wage employment. This analysis shows that from the respondents most of them are self-employed.

158 (70.5%) of the total 224 valid respondents work in hybrid Design PLC, 30 (13.4%) of respondents work in Seregela Ride Taxi Service PLC and 36 (16.1) work in another Place. This

analysis shows that majority of the respondents work in hybrid Design PLC while the remainder belong to Seregela Ride Taxi Service PLC.

136 (55.7%) of the total 224 valid respondents are part-time employed and 88 (39.3) are full-time employed. Majority of the monthly income 98 (43.7%) of the respondents were 20,000 – 30,000 Birr. the minimum and maximum monthly income were 10,000 and 40,000 Birr respectively. This analysis shows that majority of the respondents were on full-time employment, getting a monthly income range of 20,000 up to 30,000 Birr.

4.2 Quantitative and Qualitative Analysis

To analyze, the ride hailing business in Addis Ababa descriptive statistics was applied. The perceived provision issues which were measured by using questions that measures e-commerce regulatory framework issues and challenges of ride hailing business related to security and payment processing methods with a five –point Likert Scale, percentage and mean score were used to identify the levels of taken measures related to business.

In addition to closed-ended questions and interviews were presented in order to assess issues of regulatory framework in e-commerce and examine challenges of ride hailing business related to security and payment processing methods in Addis Ababa.

4.2.1 E-commerce regulatory framework gaps related to security and payment processing methods

To analyze, the Regulatory Framework and challenges of ride hailing business related to security and payment processing methods a descriptive statistic was applied. The Regulatory Framework issues and challenges of ride hailing business related to security and payment processing methods were measured by using questions that measures and educated driver's perception regarding to the existing regulation and service. a five –point Likert Scale and percentage and mean score were used to identify the Regulatory Framework of haling service. The mean score measurement used by Pihie (2009) was applied where mean score of <3.39 considered as low, mean score of 3.4-3.79 as moderate and mean score of >3.8 as high.

Table 3: Regulatory Framework Gaps related to security and payment processing methods

Regulatory Framework Gaps	Strongly Disagree n (%)	Disagree n (%)	Neutral n (%)	Agree n (%)	Strongly Agree n (%)	Total	Mean
The existing regulation has exclusive legislative articles to govern the ride hailing business sufficiently relative to other transportation division, such as traditional taxis.	120(53.5)	80(35.8)	16(7.1)	8(3.6)	0(0.0)	224	4.39
There is a legislation/ guideline dictating pricing for fare and commission calculation.	64(28.6)	60(26.8)	44(19.6)	36(16.1)	20(8.9)	224	3.07
The current legislative act or guideline provides equal business opportunity to the ride hailing sector compared to traditional taxis.	8(3.6)	48(21.4)	32(14.3)	72(33.9)	60(26.8)	224	3.59
Requests for service are accepted despite of distance proximity from source to destination.	0(0.0)	8(3.6)	16(7.1)	80(34.7)	120(53.6)	224	4.39
Drivers must have right to decline requests without notifying passenger after accepting initial request.	48(21.4)	80(35.7)	52(23.2)	36(16.1)	8(3.6)	224	3.55
The regulations and procedures set out by authorities for issuance of license as a service provider have to be easy to fulfill.	32(14.3)	46(20.5)	104(46.4)	28(12.5)	14(6.25)	224	3.73
There is overregulation by the Government affecting Ride drivers.	0(0.0)	24(10.7)	116(51.8)	52(23.2)	32(14.3)	224	3.88
Total	352	470	460	432	302		
					Grand Mean		4.14

Source: Own Survey 2021

Details of the above table per individual questions showed that regulatory framework gaps. The respondents were asked to answer questions related to the regulatory framework gaps influence on ride haling drivers and descriptive statistics of mean shows that on average 224 respondents have got4.14 with a maximum 4.39 and a minimum of 3.25 mean. Hence, 4.14 represent the high

mean score response. 200 respondents (89.3%) strongly disagree/disagree that the existing regulation has exclusive legislative articles to govern the ride hailing business sufficiently relative to other transportation division, such as traditional taxis. while 16(7.1) are not aware or neutral and the remaining 8 respondents (3.6%) agree. One hundred Twenty-six (55.4%) disagree/strongly disagree that There is a legislation/ guideline dictating pricing for fare and commission calculation. whereas 44 (19.6%) are neutral and 56 (25.0%) of them strongly agree/agree that legislation/ guideline dictating pricing for fare.

From the above analysis one can deduct that the e-commerce regulatory framework lacks exclusive articles to address matters of security. The above analysis shows most of the respondents' inclination towards the need for consisting a clause in the legislative act to acquire longer but flexible working hours in a working day. We cannot say there is even a formal policy or directive for operational supervision and governance in the area. The high trials and tedium to get the required licensing to perform business as a ride hailing service operator for instance shows absence of initial regulations and the need to develop a comprehensive and sound legal framework towards electronic commerce, service operation, provision and governance.

One hundred thirty-three (53.5%) strongly agree/agree that There is a regulation/ guideline which establishes requirement of standards for vehicle registration. whereas 36 (16.1%) are neutral and the remaining 68 (30.4%) disagree/strongly disagree. One hundred thirty-two respondents representing 60.7% strongly agree/agree that the current legislative act or guideline provides equal business opportunity to the ride hailing sector compared to traditional taxis. Whereas 32 (14.3%) are neutral and the remaining 56 (25.0%) of them strongly disagree/disagree.

The key informant from Ride also mentioned a major challenge which have been faced which is presented as follows:

> Some passengers don't have awareness of ride hailing services from traditional taxis and try to negotiate fares requested by drivers. While passengers make their payments with cash changes may not be available and if e-payment options were there it would have been more convenient for all parties and will reduce wasted times and disagreements between passengers and drivers.

From the insights of this key informant, we can assume unavailability of e-payment option making the payment processing method of the business opposing the planned fixed price list use case which a sales operational procedure

When we see the requests for service are accepted despite of distance proximity from source to destination, we can observe that 88.3% of the respondents are strongly agree/agree remaining 3.6 % are disagree.

The summary of the responses given by the respondents to the drivers can decline requests without notifying passenger after accepting initial request responds 57.1% strongly disagree/disagree whereas 23.2% of the respondents neither agree nor disagree showing no awareness if their drivers can decline requests without notifying passenger.

Forty-two (18.75%) of respondents feel that the regulations and procedures set out by authorities for issuance of license as a service provider are easy to fulfill, while (104) 46.4% of them respond that they are neutral and the remaining Seventy-eight (34.8%) of them strongly disagree/disagree that licensing as a service provider are easy to fulfill. The government has to facilitate enactment of policies encouraging partnership and market arrangement by coining clear contractual agreements and working relationship guides with third parties, which somehow guarantees business continuity for each stakeholder. The subject regarding a law dictating issuance of receipt to customer before payment is done must be revisited in light to e-commerce business and such terms of violations and contradictions put stakeholders in reduced interest for investment or just to work as a partner even if no damage is done to anyone.

Eighty-four (37.5%) of the respondents strongly agree/agree that There is overregulation by the Government affecting ride drivers while 58 (51.8%) are neutral and the remaining twenty-four (10.7%) disagree.

An in-depth interview with the key informant from Ride confirmed these points:

> Among unmet needs and demands of ride hailing drivers one is regarding issues of security related to communicated guidelines in the induction trainings for ride hailing service admission, to keep the working place or vehicle safe, clean and tidy for each

trip. To make sure this requirement is fulfilled it's more fortunate for drivers to prohibit smoking, drinking and eating while passengers are on a trip.

From the above response the researcher has understood the need for operational safety and security needs to be a must when engaging to render a modern and competitive business sector like ride hailing. As a ride hailing operator the company considers to reserve the right (and delegates to its drivers the right) to refuse to carry any person who is thought to under the influence of alcohol or drugs and/or whose behavior is considered to pose a threat to the driver, the vehicle or the passenger(s). and this scenario has to be considered while designing the legislative framework to govern the sector. A reasonable amount of ordinary passenger luggage is allowed, but luggage or items, which in the opinion of the driver, amounts to an excessive of 25kg, or produce unpleasant odors or stains shall not be accepted for common good and if such terms are stated in laws, it will better to protect the common good of stakeholders

Majority of the respondents shows neutrality on the matter that additional regulatory act improvisation may not contribute to eradicate security concerns occurring at present time. However, Besides the grand mean (4.14) which showed that the e-commerce regulatory framework gaps on security were found.

4.2.2 Challenges hindering service regulation related to security and payment processing methods

Table 4: Challenges hindering service regulation related to security and payment processing methods

Examining challenges	Strongly Disagree n (%)	Disagree n (%)	Neutral n (%)	Agree n (%)	Strongly agree n (%)	Total	Mean
Identity and background information of the passenger is known on service provision.	116(51.8)	52(23.2)	32(14.3)	24(10.7)	0(0.0)	224	3.88
Customers pay with cash on delivery for the service	0(0.0)	12(5.3)	64(28.6)	72(32.1)	76(33.9)	224	3.45
E-payment services are available to the driver.	80(35.7)	68(30.3)	28(12.5)	44(19.6)	4(1.7)	224	3.79

There are frequent service requests from customers whenever driver is available for service.	8(3.5)	28(12.5)	32(14.3)	104(46.4)	52(23.2)	224	3.73
Customers get away or refuse to make payment for service provided.	84(37.5)	48(21.4)	44 (19.6)	40 (17.8)	8(3.6)	224	3.55
License registration process is easy to work as driver for a ride hailing operator.	88(39.2)	52(23.2)	52(23.2)	28(12.5)	4(1.8)	224	3.70
Obtaining and renewing a license to work as Ride driver is costly	4(1.8)	8(3.6)	116(51.8)	48(21.4)	48(21.4)	224	3.88
Drivers can easily report crimes made to them or deviant passengers to authorities.	28(12.5)	16(7.1)	44(19.6)	92(41.0)	44(19.6)	224	3.48
Authorized offices always take regulatory measures on reported crimes.	36(16.0)	64(28.6)	88(39.3)	20(8.9)	16(7.1)	224	3.89
Many passengers present their request for service electronically using the application developed by the ride operator.	88(39.3)	76(33.9)	32(14.3)	28(12.5)	0(0.0)	224	3.93
The application developed by the ride operator for drivers is easy to use.	0(0.0)	20(8.9)	44(19.6)	112(50.0)	48(21.4)	224	3.84
There is fear of using ride hailing service in the city.	76(33.9)	72(32.1)	40(17.9)	32 (14.3)	4(1.8)	224	2.91
Traditional (regular) taxi drivers see ride drivers as enemies rather than competitors.	0(0.0)	12(5.3)	0(0.0)	88(39.2)	124(55.3)	224	4.50
Drivers can decline requests for service due to poor road conditions and/or traffic congestion	32(14.3)	120(53.6)	36(16.1)	28(14.5)	8(3.6)	224	3.55
There is frequent network interruption (data service outage) in the city.	0(0.0)	64(28.5)	52(23.2)	80(35.7)	28(12.5)	224	3.32
Quality of Internet connectivity is excellent in all parts of the city.	112(50.0)	60(2.7)	40(17.8)	12(5.3)	0(0.0)	224	3.80
Crimes like robbery and theft are	128(57.1)	72(32.1)	16(7.1)	4(1.8)	4(1.8)	224	4.16

frequently happening to drivers by passengers.						
Crimes like robbery and theft are frequently happening to passengers by drivers.	68(30.3)	84(37.5)	48(21.4)	24(10.7)	0(0.0)	224	3.86
Crimes like harassment or any sort of abuse (verbal, physical, psychological) are frequently happening to drivers by passengers.	96(42.9)	56(25.0)	40(17.9)	32(14.3)	0(0.0)	224	3.21
Crimes like harassment or any sort of abuse (verbal, physical, psychological) are frequently happening to drivers by traditional taxi drivers.	8(3.6)	32(14.3)	36(16.0)	72 (32.1)	72(33.9)	224	3.75
For drivers, ride hailing is much safer than driving the traditional/ regular taxi in the city.	8(3.6)	28(12.5)	48(21.4)	64(28.5)	76(33.9)	224	3.71
For passengers, ride hailing is much safer than using the traditional/ regular taxi in the city.	0(0.0)	44(19.6)	52(23.2)	56(25.0)	72(32.1)	224	3.41
Total	1,060	1,072	996	1,104	616		
Grand Mean							3.95

Source: Own Survey 2021

As presented in the above table, the respondents were asked to answer questions related to the challenges of ride hailing service provision related to security and payment processing methods and descriptive statistics of mean shows that on average 224 respondents have got 3.95 with a maximum 4.50 and a minimum of 2.91 mean. Hence, 3.95 represent the moderate mean score response.

168 respondents (75.0%) believe strongly disagree/disagree that identity and background information of the passenger is known on service while 32 (14.3%) are neutral and the remaining 24 (10.7%) agree/strongly agree that background information of the passenger is known.

From the key informant's interview with AATB officer, one of mentioned legislative and regulatory gaps in security subdomain is the passenger is not known on request of service, there should be an act of law to identify passenger's identity which helps in reducing crimes made

against drivers. There has to be a law securing availability of connectivity to ensure daily operation of business and location tag of the vehicle and the driver.

Concerning this another interviewee narrated her experience as follows:

The absence of uniquely identifying parameter at a national level (National ID   system); is a culprit for trust worthiness and use of e-commerce transactions and also   single framework of e-commerce, delivery and digital payment, service providers are crucial to exist in this context

The result from the security concerns on the regulatory framework shows that failure to identify the passenger may contribute to crime execution rates. From the above analysis one can deduct that the majority of the respondents believe the challenges related to security are due absence of background information of the passenger. The legal environment for e-hailing business lacks to many components. Among the basics centralized utility to trace transactions, missing to enforce prescribed form for e-receipts, and absence of template for transaction records to be reviewed by authorities. Due to above mentioned and other factors we can say it's not that much favorable. The other reason towards presence of e-commerce regulatory framework gaps is as its new development for the country tax authorities should give grace time to see the bottlenecks with flexibility and close supervision and allow e- commerce customers to pay money before accepting receipts. And allow service providers to send e-receipts in electronic forms like e-mail.

The numbers of respondents who strongly disagree/disagree that Customers pay with cash on delivery for the service are 12 (5.3%) of the respondents. Sixty-four respondents (28.6%) are neutral while 148 (66.0%) strongly agree/agree. 148 (66.0%) of the respondents strongly disagree/disagree that E-payment services are available to the driver; 28 (12.5%) are neutral and the remaining 48 (21.3%) strongly agree/agree.

The above analysis shows that the majority of the respondents believe the challenges related to payment processing methods arise from existence of e-payment services.

156 (69.7%) of respondents feel that there are frequent service requests from customers whenever driver is available for service while 32 (14.3%) of them respond that they are neutral and the remaining 36 (16.0%) of them strongly disagree/disagree that frequent service requests are available. 48 (21.4%) of the respondents strongly agree/agree that customers get away or

refuse to make payment for service provided while 44 (19.6%) are neutral and the remaining 132 (58.9%) strongly disagree/disagree that customers get away or refuse to make payment.

From the above analysis one can deduct that the majority of the respondents are in a neutral state towards the challenges related to security and payment processing methods when it comes to availability to service requests and payment refusals.

The number of respondents who strongly agree/agree that license registration process is easy to work as driver for a ride hailing operator are 32 (14.3%), 52 (23.2%) are not sure whereas the remaining respondents 140 (62.4%) disagree. ninety-six (42.8%) of the respondents strongly agree/agree that obtaining and renewing a license to work as Ride driver is costly, 166 (51.8%) are not sure if they are consistently searching for new solutions and the remaining 12 (5.4%) strongly disagree/disagree.

The number of respondents who strongly agree/agree that drivers can easily report crimes made to them or deviant passengers to authorities are 136 (60.6%), 44 (19.6%) are neutral whereas the remaining 44 (19.6%) respondents disagree/strongly disagree. Twenty-eight (12.5%) of the respondents strongly agree/agree that many passengers present their request for service electronically using the application developed by the ride operator; 32 (14.3%) are not sure and the remaining 164 (73.2%) strongly disagree/disagree.

One hundred sixty (71.4%) of the respondents strongly agree/agree that the application developed by the ride operator for drivers is easy to use. 44 (19.6%) are neutral and the remaining 20 (8.9%) disagree. Thirty-six (16.1%) of the respondents strongly agree/agree that there is fear of using ride hailing service in the city. 40 (17.9 %) are neutral and the remaining 148 (66.0%) respondents disagree/strongly disagree. The percentages of respondents who strongly agree/agree on traditional (regular) taxi drivers see ride drivers as enemies rather than competitors are 212 (94.5%) whereas those who strongly disagree/disagree are 12 (5.3%).

Thirty-six (18.1%) of the respondents strongly agree/agree that Drivers can decline requests for service due to poor road conditions and/or traffic congestion, 36 (16.1%) are neutral and the remaining 152 (67.9%) strongly disagree/disagree. 108 (48.2%) of the respondents feel that there is frequent network interruption (data service outage) in the city,52 (23.2%) is neutral and the remaining 64 (28.5%) disagree. One hundred seventy-two (52.7%) of the respondents disagree

that quality of Internet connectivity is excellent in all parts of the city., 40 (17.8%) are neutral and the remaining 12 (5.3%) agree that internet connectivity is excellent.

Two hundred (80.2%) of the respondents strongly disagree/disagree that the crimes like robbery and theft are frequently happening to passengers by drivers. 16 (7.1%) are neutral and the remaining 8 (3.6%) agree. One hundred fifty-two (67.8 %) of the respondents strongly disagree/disagree that Crimes like robbery and theft are frequently happening to passengers by drivers.48 (21.4 %) are neutral and the remaining 24 (10.7%) agree. One hundred fifty-two (67.9 %) of the respondents strongly disagree/disagree that crimes like harassment or any sort of abuse (verbal, physical, psychological) are frequently happening to drivers by passengers.40 (17.9 %) are neutral and the remaining 32 (14.3%) agree. One hundred forty-four (66.0 %) of the respondents strongly agree/agree that crimes like harassment or any sort of abuse (verbal, physical, psychological) are frequently happening to drivers by traditional taxi driver. 36 (16.0 %) are neutral and the remaining 40 (17.9%) disagree.

The percentages of respondents who strongly agree/agree for drivers, ride hailing is much safer than driving the traditional/ regular taxi in the city are 140 (62.4%) whereas those who strongly disagree/disagree are 36 (16.1%). One hundred twenty-eight (57.1 %) of the respondents strongly agree/agree that for passengers, ride hailing is much safer than using the traditional/ regular taxi in the city.52 (23.2 %) are neutral and the remaining 44 (19.6%) disagree.

General overview of the responses shows that majority of the respondents have Challenges hindering service provision and regulation. The grand mean (3.95) also indicated that challenges in ride hailing business have been found which hinder service provision from lack of e-commerce regulatory framework in relation to security and payment processing methods.

The other challenge found in the key informant interview from service operator is regarding tax, such issue ascends when payment goes to account of e-commerce operator. In case of fulfillment for e-commerce transactions payments may go to operator's account on behalf of platform users in our case registered drivers, for latter settlement. But Ministry of revenue considers such amounts as sales and requests the VAT amount to be paid.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

This chapter presents the summary of the findings, conclusions and recommendations of the research. The title of the research is: "Regulatory Framework for E-commerce Operators. Challenges hindering ride hailing services related to security and payment processing methods in Addis Ababa". The main objective of this research is to assess the existing legislative framework set for regulating E-commerce specifically ride hailing services. It has also four basic research questions.

To answer these research questions the researcher derived four sub-questions, all of which were addressed through the questionnaire, interview and document analysis

This section summarizes major findings, draws conclusions and forwards possible recommendations to overcome the problems mentioned in the previous sections.

5.1 Summary of Findings

This chapter summarizes the findings of results on the previous chapter and gives conclusion on the research questions raised. It also gives a brief recommendation about the findings of the research.

The study was conducted by sending382 questionnaires to drivers currently working under two TNCs; below half of the sent questionnaires were completely filled and used for data analysis. In order to know the internal consistency and validity of questions in questionnaire Cronbach alpha coefficients was computed. The overall scale reliability was found to be 0.823, which is higher than the standard value of 0.70.

This research was conducted to study e-commerce regulatory framework gaps related to security. It is also aimed to examine the challenges of ride hailing business related to payment processing methods. The summary of findings from this research on analysis of e-commerce regulatory framework gaps and challenges hindering ride hailing service related to security and payment processing methods in the selected sample organizations is presented in the following way.

Majority (60.7%) of the respondents were males with the age group of 26-30 years (46.4%). Regarding the educational background, majority (64.3%) of them were high school graduates. Married respondents were the larger (58.9%) and majority of them (51.8%) were experienced more than 4 years.

The respondents were asked to answer questions related to e-commerce regulatory framework gaps resulted in an average high mean score (4.14) response. Among the questions which measure that the existing regulation has exclusive legislative articles to govern the ride hailing business sufficiently relative to other transportation division, such as traditional taxis majority of them replied that they strongly disagree to it.

Most (62 %) of the respondents related to query traditional (regular) taxi drivers see ride drivers as enemies rather than competitors were to strongly agree/agree. The average mean score of the respondents related to this issue mean of 3. Gaps in regulatory framework has effect on using ride hailing service related to challenges hindering to service provision were replied by majority of the respondents.

Regarding the price dictation of fares and commission calculation, the result showed that majority (28.6%) of them responded that the authority needs to enforce an act. For the questions related to the regulatory framework gaps, an average means score response was high with a maximum and minimum mean of 3.07 and 4.39 respectively. The existing regulation has exclusive legislative articles to govern the ride hailing business sufficiently relative to other transportation division, such as traditional taxis was the answer having majority of respondents.

The result of respondents regarding a regulation/ guideline which establishes requirement of standards for vehicle registration showed that majority (35.7%) of the responses were to agree/Strongly agree. The average mean score response related to the question drivers can decline requests without notifying passenger after accepting initial request was 3.55.

Above half of (60.7%) of the respondents agree/strongly agree that the current legislative act or guideline provides equal business opportunity to the ride hailing sector compared to traditional taxis. The maximum and minimum mean score of questions related to the question were 3.86 and 3.21 with an average mean 3.59.

Majority (88.3%) of respondents replied about the requests for service are accepted despite of distance proximity from source to destination was strongly agree/agree. The average mean score of respondents about the request was 3.55 with a maximum and minimum mean of 4.39 and 2.36 respectively.

5.2 Conclusion

From the study it can be concluded that the e-commerce regulatory framework to govern specifically ride hailing business related to security and payment processing methods and the ride hailing in the e-commerce sector as a whole is a critical step to go ahead towards an effective provision and promotion of the digital economy. The research identified that there are a number of gaps that can hinder regulation of ride hailing service-related security and payment processing methods in the sample organizations.

The legislative requirement gaps we have detected in this concern from the interviewees, are wrapped into three parts as matters of data presentation, issues of data availability/accessibility and capability of registered evidence consumption for future reference. Addressing these matters will provide wider acceptance in the accounting system, playing important role in promotion of the digital economy sector. Below mentioned gaps in the legislative work believed to reduce the regulatory framework gaps also need to be further discussed as matters of written statement, signature, original copy, payment modes and other scenarios which can occur in a typical business life cycle.

In TNCs the emphasis given to security of drivers is an identified gap that has a significant constituent effect towards a regulatory and legislative framework gap. This safety concern on drivers occurred primarily due to absence of uniquely identifying parameter at a national level (National ID system); is a culprit for trust worthiness and use of e-commerce transactions as described by the above presented data.

Issuance of e-receipts and their uses for future reference deprived of supporting legislative is another gap that has an impact as a legal matter in regard to payment processing methods since it has low acceptance and is violation of a regulation in the accounting system, standing without supporting proclamation or law. In the studied organizations it was observed that the booking applications send automated e-mails containing e-receipts. Most organization's finance units

worry on the validity and acceptance of such receipts by government authorities and their comfort to use them as legalized transactions is reduced.

Digital receipts and technology are equal as the manual or paper-based receipts. Private and public sectors will efficiently be able to do their jobs, specially, at this pandemic (COVID-19) time have noticed adaption of such technologies enabling pursuance of commercial transactions, meetings, educational activities, and other relevant events and activities could not be realized.

To promote and expand the e-commerce sector specifically the ride hailing business preparing a single framework of e-commerce, delivery and digital payment, service providers should have a reference to be checked against before commencing any operation. Creating an infrastructure to centralized national switches for integration of financial institutions, digital commerce operators and authority offices is the widely implemented and on use in most developed and developing nations as operational readiness and towards minimizing hindering challenges that comes along in adoption such of technologies.

The other challenge towards payment processing methods faced in the area is regarding tax, such issue ascends when payment goes to account of e-commerce operator. In case of fulfillment for e-commerce transactions payments may go to operator's account on behalf of platform users in our case registered drivers, for latter settlement. But Ministry of revenue considers such amounts as sales and requests the VAT amount to be paid, such type of issues should be avoided to promote the ride hailing business and the e-commerce sector as a whole.

5.3 Recommendations

The following recommendations are made based on the findings and conclusions of the study: It is primarily recommended to plan, design and implement the appropriate infrastructure and facilities consisting connectivity and power solutions, with a complementary legislative e-commerce framework to run and integrate required platforms, applications and service providers to cope up with the digital ecosystem. Undertaking this also produces market alternatives by joining the city to digital world fulfilling its operational readiness.

The draft e-commerce proclamation on process shall address issues of consumer protection under public services as e-transactions security measures since there is a need for a proclamation for personal data protection, by which there is a chance for them to be altered when there's error.

How to handle this issue and what type of mechanism to be followed is very mandatory to be addressed. Such type of issue is a must to be dictated in this act.

When contracting parties in the e-commerce eco-system are signing contracts from different locations the need for service operator has to be a must and, if not otherwise, the level of their mandate has to be explicitly known when they are accountable, and in which cases they are free from being liable.

To ensure our operational readiness as we dive into the digital economy, it is useful leveraging current situations faced such as COVID-19 to make sure there is no systematic challenge occurring from consumer and business perspectives on one side and on the other side to ensure soundness of financial systems. As penetration and use of digital payment solutions are not that much, the success rate to push these technologies into the society at this moment are high due to favorability towards cashless transactions.

Under service operations readiness standard operating procedures has to be itemized as legal issues. As the transaction law is already drafted the required license type of category one needs to fulfill has to be known to carry out the transaction. In this section, the required e-commerce contracts or agreements need to be indicated between consumer, seller, and operator. From the financial side NBE is a sole owner to form license requirements to be fulfilled by payment operators.

The required technical readiness needs to be given the proper place as it includes one of the matters which is infrastructure containing to form regulatory specifications and standards to be met and use of connectivity in the business activity under service level agreements with the service provider. There also should be a need for requirement fulfilment in regard to systems and applications. These instruments have to pass quality assurance as their legal requirement before they are presented and consumed by the market as digital services can't be deployed without ensuring the security of interactions and stored content. In this consent the need for privacy also has to be guaranteed which is a user's ability up to opt out from a digital service. The citizen must retain right to select service they wish to engage with in a regulatory act form.

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APPENDIX

ST. MARY'S UNIVERSTY (SMU)

SCHOOL OF GRADUATE STUDIES

STUDENT RESEARCH PROJECT (Thesis)

Questionnaire to be filled by Ride drivers

Name of Researcher: Amanuel T. Woldemariam

E-mail: manibee@live.com

Cellphone: +251911573320

Dear respondent,

I am a student in the above-mentioned academic program of SMU. Currently, I am undertaking a study on ***E-Commerce Regulatory Framework and Challenges of Ride Hailing Business on Security and Payment Processing Methods in Addis Ababa*** in partial fulfillment for the requirements of the degree of Master of Art in General MBA. As its objective, the study is directed towards identifying gaps and challenges that Ride hailing service providers facing in present Ethiopia. It is believed that the expected output of the study could potentially benefit all stake holders in the sector including you as Ride driver.

This questionnaire is designed to collect data/ information required for the study, and you are among the targets expected to participate in the process as a respondent. Your participation is entirely voluntary and the questionnaire is completely anonymous. The data will be kept confidentially and it will be used for the study purpose only.

Your honest and thoughtful responses is priceless. So, I am kindly requesting you to complete questionnaire.

Thank you in advance for your cooperation.

If you have any question, please do not hesitate to contact me.

General Instructions

- There is no need of writing your name on any part of the questionnaire.
- In all cases where answer options/ choices to questions are available, please tick (√) the answer/ choice in the appropriate box.
- For questions that demand your opinion, please try to honestly express your thoughts in writing on the blank space provided.

Part I – Background Information

1. Are you male or female?

   ☐Female   ☐Male

2. Your age:

☐18 -25	☐26 – 30	☐31 -40	☐41 -50
☐51 -60	☐Above 60		

3. Your occupation:

   a. Please indicate the type of employment which applies to you:

   Wage Employment ☐   Self-Employed ☐

   b. If you are engaged in wage employment, please indicate your employer.

   Hybrid Designs PLC ☐ Seregela Ride Taxi Service PLC ☐ Other ☐

   Please write name of your employer

   _____

   c. Are you full-time driver or part-time driver?

   Full-time driver ☐   Part-time driver ☐

   d. If you are a part-time driver, please specify your current status or main job below.

   _____

4. Your average monthly income:

☐ 9,999 Birr or below	☐ 10,000 – 24,999 Birr	☐ 25,000 – 49,999 Birr	☐ 50,000 – 74,999 Birr
☐ 75,000 – 99,999 Birr	☐100,000 – 149,999 Birr	☐150,000 Birr and greater	

Part II: E-commerce regulatory framework and ride hailing business challenges

In this part of the questionnaire, there are questions that are related to issues of regulatory framework gaps and challenges of ride hailing service in Addis Ababa. Read statements presented under paragraph 2.1 and 2.2 one by one and indicate your level of agreement or disagreement based on the following scale: **1=Strongly Disagree2=Disagree 3=Neutral 4=Agree 5=Strongly Agree**

2.1. Regulatory Framework Gaps on security

No	Identifying Regulatory framework Gaps	1	2	3	4	5
2.1.1	The existing regulation has exclusive legislative articles to govern the ride hailing business sufficiently relative to other transportation division, such as traditional taxis.					
2.1.2	There has to be a legislation/ guideline dictating pricing for fare and commission calculation.					
2.1.4	The current legislative act or guideline provides equal business opportunity to the ride hailing sector compared to traditional taxis.					
2.1.5	Requests for service must be accepted despite of distance proximity from source to destination.					
2.1.6	Drivers should decline requests without notifying passenger after accepting initial request.					

2.1.7	The regulations and procedures set out by authorities for issuance of license as a service provider are easy to fulfill.					
2.1.8	There is overregulation by the Government affecting Ride drivers.					

2.2. Challenges hindering business related to security and payment processing methods

No	Examining challenges	1	2	3	4	5
2.2.1	Identity and background information of the passenger has to be known on service provision.					
2.2.2	Customers pay with cash on delivery for the service					
2.2.3	E-payment services are available to the driver.					
2.2.4	There are frequent service requests from customers whenever driver is available for service.					
2.2.5	Customers get away or refuse to make payment for service provided.					
2.2.6	License registration process is easy to work as driver for a ride hailing operator.					
2.2.7	Obtaining and renewing a license to work as Ride driver is costly.					
2.2.8	Drivers can easily report crimes made to them or deviant passengers to authorities.					
2.2.9	Authorized offices always take regulatory measures on reported crimes.					
2.2.10	Many passengers present their request for service electronically using the application developed by the ride operator.					
2.2.11	The application developed by the ride operator for drivers is easy to use.					
2.2.12	There is fear of using ride hailing service in the city.					

2.2.13	Traditional (regular) taxi drivers see ride drivers as enemies rather than competitors.					
2.2.14	Drivers can decline requests for service due to poor road conditions and/or traffic congestion					
2.2.15	There is frequent network interruption (data service outage) in the city.					
2.2.16	Quality of Internet connectivity is excellent in all parts of the city.					
2.2.17	Crimes like robbery and theft are frequently happening to drivers by passengers.					
2.2.18	Crimes like robbery and theft are frequently happening to passengers by drivers.					
2.2.19	Crimes like harassment or any sort of abuse (verbal, physical, psychological) are frequently happening to drivers by passengers.					
2.2.20	Crimes like harassment or any sort of abuse (verbal, physical, psychological) are frequently happening to drivers by traditional taxi drivers.					
2.2.21	For drivers, ride hailing is much safer than driving the traditional/ regular taxi in the city.					
2.2.22	For passengers, ride hailing is much safer than using the traditional/ regular taxi in the city.					

2.3 Open-ended questions

2.3.1 As ride driver operator, what legislative and regulatory gaps have you observed?

_____

_____

_____

_____

_____

2.3.2 What are the unmet needs and demands of ride drivers?

_____

_____

_____

_____

_____

2.3.3 Please mention major challenges you have been facing as ride driver operator.

_____

_____

_____

_____

_____

2.3.4 What changes or improvements you want to see effected for ride hailing business in Ethiopia? Why?

_____

_____

_____

_____

_____

ST. MARY'S UNIVERSTY (SMU)

SCHOOL OF GRADUATE STUDIES

STUDENT RESEARCH PROJECT (Thesis)

Key Informant Interview

Name of Researcher: Amanuel T. Woldemariam

E-mail: manibee@live.com

Cellphone: +251911573320

Research topic: *E-Commerce Regulatory Framework and Challenges of Ride Hailing Business on Security and Payment Processing Methods in Addis Ababa*

Name of the interviewer: _____

Position of the interviewee: _____

Place of Interview: _____

Date of Interview: _____

	Interviewees and Interview items (questions)	
	Ride Operator Rep.	**AA Transport Bureau Rep.**
1.	When did you enter the Ethiopian market? Since then, is there a regulatory framework put in place for regulating your operation? If 'yes', what does it look like in terms of provisions and restrictions?	Does the AA City administration have a regulatory framework for regulating ride hailing business? If 'yes', what does it look like in terms of provisions and restrictions?
2.	How well is e-commerce in ride hailing business regulated?	How well is e-commerce in ride hailing business regulated?
3.	As ride operator, what legislative and regulatory gaps have you observed in the area of your business?	As city transport bureau, what legislative and regulatory gaps have you observed in ride hailing transport sub-sector?
4.	How do you evaluate the policy environment in Ethiopia/ AA for your business? Is it favorable or not? Please explain.	
5.	How do you evaluate the legal environment in Ethiopia/ AA for your business? Is it favorable or not? Please explain.	
6.	In Ethiopia, ride drivers collect payment for service rendered to passengers in cash. Why?	
7.	What are the unmet needs and demands of ride operators in Ethiopia?	
8.	Please mention major challenges you have been facing as ride operator.	
9.	What changes or improvements you want to see effected for ride hailing business in Ethiopia? Why?	