



COLLEGE OF BUSINESS AND ECONOMICS

DEPARTMENT OF MANAGEMENT

IMPACT OF E-GOVERNMENT SERVICE QUALITY ON CUSTOMER

SATISFACTION: CASE OF MOTI IN YEKA SUB CITY

**A RESEARCH SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT
OF MASTER OF SCIENCE IN MANAGEMENT**

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ADDIS ABABA ETHIOPIA

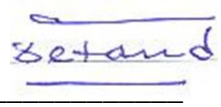
CERTIFICATION

I hereby confirm that the thesis titled "Impact of E-Government Service Quality on Customer Satisfaction: The Case of MOTI in Yeka Sub City" authored by Frehiwot Tadesse worku adheres to the regulations and guidelines set by the university regarding originality. The thesis was submitted as a partial fulfillment of the requirements for the Masters of Science in Management program.

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LIST OF ACRONYMS/ABBREVIATION

| | |
|--------------|---|
| MOTI | Ministry of Trade and Industry |
| ICT | Information and communication technology |
| E-government | Electronic government |
| E-service | Electronic service |
| EFF | Efficiency |
| REL | Reliability |
| TRU | Trust |
| SUPP | Support |
| OECD | Organization for Economic Cooperation and Development |
| UN | United Nations |
| EU | European Union |

Abstract

Service quality and customer satisfaction are crucial factors for both business and academia, including those associated with e-government services. This investigation aims to contribute new knowledge by examining the impact of e-government service quality dimensions of efficiency, reliability, trust, and support on customer satisfaction in the context of the e-trade systems carried out through the MOTI (Ministry of Trade and Industries). The data was collected via a self-administrated online survey sent out to customers of the e-trade services provided by the ministry. The sample consisted of 362 participants selected using a stratified random sampling technique. Statistical analyses, including Pearson's correlation coefficients and multiple linear regression, were conducted to assess the relationships among the independent variables (e-government service quality dimensions) as well as perceived overall satisfaction. These results revealed a significant positive relationship between all e-government service quality dimensions and customer satisfaction. Particularly, the dimension of support was discovered to have a significant impact on customer satisfaction. These findings have useful implications, suggesting that improving service quality can result in increased customer satisfaction. The conclusions of this study provide valuable insights for e-government development authorities, specifically regarding online e-trade systems. Additionally, the findings contribute to the existing literature on e-services and can guide future studies and projects related to the field of e-government.

Keywords: e-trade, e-service, service quality, customer satisfaction, efficiency, reliability, trust, support

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CHAPTER ONE: INTRODUCTION

1.1 Background of the study

The growth of online government services, commonly known as e-government, has brought about a paradigm shift in how governments interact with citizens and businesses by leveraging information and communication technologies. This transformation from traditional, in-person service delivery to digital platforms has been driven by the need for enhanced efficiency, accessibility, and citizen-centric governance.

The rise of digital transformation as a strategic initiative has further accelerated the adoption of e-government on a global scale. Governments worldwide recognize the potential of digital technologies to streamline processes, improve safety measures, and deliver exceptional customer experiences. By embracing e-government, governments aim to reform governance practices, enhance service delivery, and foster transparency and accountability.

Two key factors have contributed to the widespread acceptance of e-government: Firstly, a new public management theory has emphasized the significance of governments as service providers, with citizens and businesses as their customers. This shift in perspective has necessitated a service-oriented approach to governance, with a focus on effectively meeting the needs of stakeholders. This has led to the development of customer-centric policies and practices that prioritize the satisfaction and well-being of customers and businesses.

Secondly, the rapid advancement of information technology has empowered governments to offer efficient and accessible services to citizens and businesses. E-government systems provide streamlined access to information and services, thereby enhancing governance processes and responsiveness to stakeholders' needs.

The significance of e-government in modernizing governmental operations and promoting citizen engagement is crucial. However, there's a limited body of research on e-government service quality from the customer's viewpoint. Previous studies have primarily focused on promoting e-government services and evaluating the success of e-government systems, often neglecting the examination of service quality and its impact on customer satisfaction.

The present investigation seeks to fill this research gap by looking into the impact of e-government service quality dimensions on customer satisfaction, with a particular focus on newly developed e-service systems carried out by the MOTI (Ministry of Trade and Industry). By examining the connection between service quality and customer satisfaction with regard to e-government, this investigation seeks to improve existing skills and provide insights for enhancing e-service delivery and improving customer experiences. Furthermore, this investigation aims to identify the factors that influence service quality and customer satisfaction in e-government.

The shift from traditional offline methods to e-government has yielded significant advantages, including cost reduction, improved efficiency, and enhanced collaboration. However, scant research has delved into the quality of e-services from the customer's viewpoint. This study specifically concentrates on the e-trade system within the Ministry of Trade and Industry aiming to gather practical insights as well as real-life data. The findings of this research can potentially assist improve the e-service experience for users of MOTI's e-trade system.

Through investigating the dimensions of e-government service quality and their impact on customer satisfaction, this research attempts to enhance understanding of user perspectives and provide valuable insights for improving e-service delivery within the ministry and potentially across other e-government systems.

1.2 Statement of the problem

The introduction of e-government services aimed to transform service delivery and enhance interaction between citizens and businesses, making it more convenient and efficient (Srivastava & Teo, 2007). However, despite the benefits of e-government services, many users tend to revert back to traditional methods, such as personal visits and telephone inquiries, after initially trying e-government services (Allahawiah & Alsaraireh, 2014). Additionally, the success rate of e-government projects in developing countries is reported as low, with only a 15 percent success rate (Heeks, 2003). This indicates that there is still much work to be done in improving and promoting e-government services in developing countries. Efforts must be made to address the challenges and barriers that prevent the successful implementation of e-government projects in these regions.

This highlights the need to assess the effectiveness of online e-government services, particularly in developing countries where the demand for a wide range of e-government services is increasing (Lee & Lin, 2011). Service quality in the e-government domain is critical for both the government and citizens, as it represents consumers' overall measurement of quality in a digital setting and plays a key role in the success or failure of e-government initiatives (Bhattacharya, Gulla, & Gupta, 2010:249). Discontinuation of e-government services might happen after the initial acceptance if the software fails to satisfy the customer's demands, regardless of prior achievement (Roger, 1995). This highlights the importance of continuously evaluating and improving e-government services to ensure their success and sustainability. Regular feedback and user testing can help identify areas for improvement and ensure that the software meets the evolving needs of the customer. Additionally, regular updates and maintenance are necessary to keep the software running smoothly and securely.

Therefore, the problem statement addresses the challenges of customer acceptance and retention of e-government services, the low success rate of e-government projects in developing countries, and the evaluation of service quality in the e-government domain. By investigating these issues, this research project aims to contribute to the improvement of e-government services and enhance the overall achievement of e-government projects, particularly in developing countries.

Sureshchandar (2003) established a powerful connection between service quality and customer satisfaction, pointing out that both of these constructs are theoretically different based on the customer's perspective. Similarly, Spreng and Mackoy (1996) demonstrated that service quality results in customer satisfaction based on Oliver's (1997) models. With regard to e-services, DeLone and McLean (2003) found a positive relationship between e-service quality and satisfaction, indicating that higher perceived e-service quality results in greater user satisfaction. Furthermore, it has been shown that one's impression of service quality significantly impacts user loyalty and retention (Richard & Allaway, 1993). Thus, it's crucial for e-service providers to prioritize and improve their service quality to maintain customer loyalty. This may result in higher customer satisfaction, repeat business, and positive word-of-mouth recommendations.

Considering the importance of public sector services, it is crucial to address the problems and challenges associated with them. The researcher aims to identify the issues faced by users before and after the implementation of online services in the trade and industry minister sector, with the goal of providing high-quality services that satisfy users. Quality problems encountered before the adoption of online services include long waiting times, overloaded queues, file loss, system breakdowns, staff knowledge gaps, and customer knowledge gaps. After the development of the online system, problems may arise such as lack of information for customers using the system, delayed responses to confirmation codes, difficulties with payments, delays in receiving online answers, and a lack of community awareness and education about system usage.

According to the researcher's understanding, no prior research has been done regarding the e-service quality of the trade and industry minister and its impact on customer satisfaction, as the system is new and was developed in the current year. Therefore, the present research aims to examine the influence of e-service quality provided by trade and industry ministers on customer satisfaction. By investigating the positive and negative impacts of the system, the study seeks to contribute to a greater understanding of the variables that impact customer satisfaction in the context of the newly implemented online service system. This understanding can inform future improvements to the system and ultimately lead to higher customer satisfaction rates.

1.3 Research question

The study sought to answer the following research questions:

1. Are customers satisfied with the e-government service quality provided by the Ministry of Trade and Industry in Yeka Sub City?
2. Is there a relationship between different dimensions of e-government service quality and customer satisfaction?
3. Which dimension of e-government service quality has the most significant impact on customer satisfaction?

By exploring these research questions, the study sought to understand the satisfaction levels of customers regarding the e-government services offered by MOTI in Yeka Sub City. Additionally, the study aimed to determine whether a connection exists between various dimensions of e-government service quality and customer satisfaction. Finally, the research aimed to identify the dominant dimension of e-government service quality that has had the strongest impact on customer satisfaction. The results of this research can help governments prioritize their efforts toward improving e-government service quality to enhance customer satisfaction.

1.4 Objectives of the Study

The general and specific goals of the study were as follows:

1.4.1 General Objective:

- To assess the impact of e-government service quality dimensions in the e-trade sector on achieving customer satisfaction.

1.4.2 Specific Objectives:

- ❖ To measure the overall level of customer satisfaction with the quality of e-government services in the e-trade sector.
- ❖ To examine the relationship between different dimensions of e-government service quality in the e-trade sector and overall customer satisfaction.
- ❖ To identify the specific dimensions of e-government service quality in the e-trade sector that have a significant effect on customer satisfaction.

By achieving these objectives, the study aimed to provide insights into the degree of customer satisfaction with e-government services, understand the connection between service quality dimensions and customer satisfaction and identify key factors that contribute to customer satisfaction in the context of e-trade services. The findings from this research can be used to improve the design and delivery of e-government and e-trade services, ultimately enhancing customer satisfaction and loyalty.

1.5 Significance of the Study

The research holds significant significance for MOTI decision-makers as it provides valuable insights into the quality of e-services based on customers' viewpoints. It allows decision-makers to understand how well the sector is meeting customer expectations and identify areas for improvement.

Additionally, the study recognizes that the main objective of providing e-government services is to achieve customer satisfaction and trust. By delivering information and services to citizens anytime and anywhere, the government aims to enhance its relationship with the public. This research seeks to explore overall customer satisfaction with e-government services and identify the key variables that contribute to this satisfaction. It also aims to provide recommendations for improving e-government services in the future.

Furthermore, the study provides a platform for customers to express their opinions regarding the quality of services offered by the sector. By giving customers a voice, the study empowers them to actively participate in the continual improvement of e-government services.

Moreover, this research's results will assist MOTI in developing and implementing effective service quality improvement initiatives. By addressing the identified satisfaction factors, the sector can enhance the overall service experience and satisfaction of customers.

Lastly, this study adds to the existing knowledge base in the field of e-government services, serving as a valuable reference for other researchers interested in studying service quality and customer satisfaction. It opens doors for further investigation and exploration in this area. In summary, this study's significance lies in its ability to inform decision-making, improve service quality, involve customers in the process, and aid in the advancement of understanding in the growing world of e-government services.

1.6 Scope and Delimitation of the Study

This research has a specific scope and certain limitations. It concentrates on evaluating the satisfaction level of customers using the e-government services provided by the MOTI in the Yeka Sub-city of Addis Ababa, Ethiopia. The study includes customers who possess a business license and regularly utilize MOTI's online system, as well as those who visit the site annually for activities such as capital increases or adding new shareholders.

It is essential to acknowledge that the results and conclusions from this research are not applicable to other e-government services in Ethiopia, as the focus is solely on a specific service sector and location. The scope of this research is confined to MOTI's e-government services within the specified region and customer group. The study's outcomes will be based on individual responses from the participants and may not offer an exhaustive understanding of e-government service quality throughout the entire MOTI or the country as a whole. Additionally, there might be limitations in terms of time and budget, which could impact the coverage of all customers at the Yeka Sub City site.

1.7 Organization of the Study

The research is organized into five main chapters to offer a comprehensive comprehension of the study's topic. The first chapter serves as an introduction, presenting the background of the study, stating the problem, and outlining the research question and objectives. It also highlights the significance of the study, discusses its scope and limitations, and provides definitions of key terms.

Moving on to the second chapter, it offers a thorough review of related literature to establish a theoretical foundation for the study. This chapter explores existing research, theories, and concepts relevant to the topic, thereby providing a contextual framework for the study.

In the third chapter, the research approach is discussed in detail. It covers the methodology, research design, data collection methods, and data analysis techniques employed during the research. This chapter outlines the way the research has been conducted to deal with the research questions and accomplish the study objectives.

The fourth chapter is dedicated to the presentation and analysis of the collected data. It provides a detailed description of the information collected throughout the study and applies appropriate analytical tools and techniques to interpret and draw meaningful insights from the data.

Finally, the fifth chapter concludes the study by summarizing the key findings, drawing conclusions based on the analysis, and offering recommendations for future actions or improvements based on the study's outcomes. This chapter provides a concise summary of the research findings as well as their implications.

By organizing the study into these distinct chapters, the research aims to present a logical and coherent structure that effectively addresses the research objectives and adds to current knowledge in the area of study. Additionally, the study hopes to provide practical recommendations for future research and policy development.

1.8. Definition of terms

E-government service: This term pertains to the utilization of digital information technology by government entities to provide various systems, processes, and functions over the Internet. It involves providing government information, programs, and services in a digital format, facilitating convenient access for citizens and businesses.

E-government service quality: This term encompasses the evaluation of how well a government website or digital platform enables the efficient and effective delivery of services to its users. It encompasses factors such as the usability, accessibility, responsiveness, reliability, and security of the e-government service. Assessing service quality helps gauge the extent to which the digital platform meets user expectations and requirements.

Customer satisfaction: This term relates to the assessment made by customers regarding the product or service they have received. It signifies whether the product or service has successfully met their needs and expectations. Customer satisfaction reflects the level of contentment or fulfillment experienced by customers in their interactions with a particular service provider.

E-commerce: It refers to the electronic trading method wherein technology is utilized to connect buyers and sellers. E-commerce involves conducting business transactions electronically, typically over the Internet. It enables online buying and selling of goods, services, or financial instruments.

E-service: This term pertains to the provision of government information, programs, and services in a digital format. It includes online platforms, websites, and electronic channels through which citizens and businesses can access and utilize government services. E-services facilitate efficient and convenient interactions between government entities and their stakeholders.

E-government: This term encompasses the utilization of digital information technology by government entities to execute various systems, processes, and functions over the internet. It involves the use of digital platforms and online channels to deliver government services, provide information, and engage with citizens and businesses. E-government initiatives aim to enhance accessibility, efficiency, and effectiveness in the delivery of public services.

Source: Papadomichelaki and Mentzas (2012)

CHAPTER TWO

REVIEW OF RELATED LITERATURE

The review of related literature serves as the empirical and theoretical basis for the study of the subject at hand. This chapter aims to provide an in-depth understanding of online services, particularly e-services, and their diverse applications across different sectors.

E-service, also known as online service, refers to services that are offered through the Internet by organizations, companies, or individuals. When those services are provided by the government, it is referred to as e-government. Conversely, when businesses provide services online, it falls under the umbrella of e-business or e-commerce. For instance, when a bank offers services over the Internet, it is referred to as e-banking.

In the literature, Buckley J. (2003) highlights the fact that the definitions of e-service suggested by different research are predominantly grounded in experiences within private businesses. However, he suggests that the expression "e-government" ought to be specifically employed in the context of the governmental sector to emphasize the unique nature of government services delivered electronically. This is because government services have a distinctive set of requirements that need to be taken into account when designing e-government systems.

This literature review establishes a foundation for comprehending the significance of e-service and its relevance to the government sector. Examining existing research and definitions, it creates a framework for studying e-government services and their impact on customer satisfaction. Subsequent sections of the literature review will delve deeper into the specific dimensions of e-government service quality and its relationship with customer satisfaction, thereby enhancing the understanding of the research topic.

THEORETICAL LITERATURE REVIEW

2.1 E-Government and E-Government Service

The concept of e-government has gained significant attention and popularity over the past two decades, particularly in the late 1990s. While initially seen as a novel idea, e-government has now become a well-established concept, even in economically disadvantaged countries where it continues to evolve.

Numerous researchers, organizations, and governments have provided their own definitions of e-government. Here are some noteworthy definitions of people, groups, and business entities:

As defined by the UN (2012a:233), e-government involves the utilization of the World Wide Web and the Internet to deliver government information and services to citizens. This definition emphasizes the role of the online setting and the provision of government services to people and companies through internet-based platforms.

The World Bank (2012:40) defines e-government as the implementation of information technologies by government agencies, including the internet, wide area networks, and mobile computing, to change connections with people, companies, and other government entities. The aim

is to improve service delivery, enhance interactions, offer access to information, and enable a more effective government.

Gartner (2000, adapted from Cascadis, 2007) offers a widely used definition of e-government, emphasizing a continuous shift in internal and external interactions within the public sector. This transformation occurs via internet-enabled operations, the implementation of information and communication technology, and the optimization of service delivery, citizen participation, and public governance.

Jeong (2007:14) defines e-government as the proper use of ICTs and online telecommunication technologies to enhance the effectiveness and efficiency of service delivery within the public sector.

Holden, Norris & Fletcher (2003) define e-government as the digital transmission of governmental services primarily via Internet technologies.

While there are variations in the definitions provided by different organizations and academics, the underlying concept remains consistent: using ICT to enhance ways of offering government services to customers, businesses, and other government agencies. Synonyms like government e-service, e-public service, or e-government service can also be employed to refer to the same concept.

According to this investigation, e-government is characterized by the provision of government services and transactions between different governmental departments via the web and the application of ICT for the benefit of people, businesses, and other government divisions.

2.2 E-government service maturity level

The evolution of e-government services may be conceptualized at various stages of development. Several models, including those proposed by the OECD, UN, and EU, outline different stages that highlight the advancement of e-government services.

As stated by the OECD (2009), there are five stages of e-government service maturity:

1. **Push Services:** In this stage, government information and data are made available to users, typically through websites or online portals.
2. **Pull Services:** Users have the ability to download information and data as needed from government platforms.
3. **Interactive Services:** This stage enables user interaction through features like electronic forms, allowing individuals to actively engage with government services.
4. **Transactional Services:** At this stage, full electronic case handling is possible, enabling users to complete transactions online, such as submitting forms or applications.
5. **Individualization of Services:** The highest level of maturity involves the automatic provision of personalized information and data to users, tailoring government services to individual needs.

Similarly, the UN and the EU also present stage models to describe the evolution of e-government services:

United Nations identifies the following stages:

- Stage I: Emerging
- Stage II: Enhanced
- Stage III: Interactive
- Stage IV: Transactional
- Stage V: Connected

These stages depict the progression from basic web pages and static information provision to interactive services, online transactions, and ultimately, a connected network of government entities and citizens allowing for participatory decision-making.

The EU emphasizes the level of online service sophistication and outlines the following levels:

- Level 1: Information
- Level 2: One-way interaction
- Level 3: Two-way interaction
- Level 4: Transaction
- Level 5: Targetization

These levels represent the increasing complexity and functionality of e-government services, from one-way communication to seamless transactions and personalized services.

These stage models provide frameworks for understanding the maturity and sophistication of e-government services, illustrating the progression from basic information dissemination to interactive, transactional, and ultimately personalized and proactive service delivery

2.3 Classification of E-government Service

E-government services may fall into various groups according to the users involved and the nature of the services provided. One classification is the Government-to-business (G2B) category:

2.3.1 Government to Business (G2B)

The Government-to-Business category of e-government services concentrates on facilitating relationships between the government and businesses. It involves providing a range of services, information, and transactions specifically tailored to business activities. Examples of G2B services include business registration, licensing, procurement systems, and online payment of taxes and fees.

Fang (2002) describes G2B transactions as the exchange of services and information between the government (public sector) and the business community (private sector). These transactions encompass various services, such as accessing business information, downloading application forms, renewing licenses, registering new businesses, obtaining permits, and making tax payments. Additionally, G2B services may also involve the distribution of memos, policies, rules, and regulations to the business community.

Scholars such as Davies (2007) and Metaxiotis & Psarras (2004) emphasize the benefits of G2B applications in enhancing the quality and efficiency of communication and transactions between businesses and the government. Improved communication and streamlined processes contribute to a more favourable business environment. Particularly in developing countries, where attracting foreign investors and simplifying bureaucratic procedures are essential for economic growth, effective government-business interactions, as argued by Heeks (2006), play a crucial role.

By offering user-friendly digital platforms and reducing paperwork, G2B services enable businesses to access information and complete transactions conveniently. These services contribute to the ease of doing business, promote transparency, and support overall economic development. Strong government-business relationships facilitated by G2B e-government services are vital in creating an atmosphere that supports businesses and encourages investments in developing countries. G2B transactions can also contribute to transparency and the elimination of corruption.

In case of MOTI's e-trade service, it falls under the G2B category. The services provided include commercial registration, trade license issuance, and renewal, trade name registration and amendment, and related transactions. These services aim to facilitate business transactions and streamline administrative processes through the e-trade platform (www.etrade.gov.et).

2.3.2 Government to Citizen (G2C)

The government-to-citizen category of e-government services concentrates on the interaction between the government and individual people. It involves providing public services, information, and transactions via digital platforms, aiming to offer citizens easy access to government services. Examples of G2C services include online tax filing, applications for government benefits, and access to government information.

G2C applications in e-government aim to cater to the needs and convenience of individual citizens. They prioritize offering citizens various options and communication channels for engaging in public transactions, as highlighted by Al Shihi (2006). The primary objective of G2C applications is to be citizen-centric, placing citizens' requirements and preferences at the forefront.

The OECD (2003) provides instances of G2C applications, which involve disseminating information to the general population and delivering essential citizen services. These services encompass activities such as renewing licenses, requesting birth, death, or marriage certificates, filing income tax returns, and accessing help with education, healthcare, and library services.

However, the scope of e-government extends beyond the provision of basic information and services online. G2C applications also have a political dimension, as emphasized by Davies

(2007), involving the enhancement of the relationship between citizens and the government. E-government has the potential to facilitate citizen engagement and empowerment by providing online platforms for citizen participation, such as electronic voting and public consultation. These platforms allow citizens to actively contribute to decision-making processes and play a role in shaping public policies.

In summary, G2C applications in e-government encompass not only the delivery of essential services and information to citizens but also the promotion of citizen-government interaction and participation in governance. By leveraging digital platforms, e-government can foster a more inclusive and participatory democracy, enabling citizens to have a meaningful voice in public affairs

2.3.3 Government to Government (G2G)

Government-to-Government services encompass the exchange of information, services, and transactions between different government entities. These services play a vital role in promoting interagency collaboration, facilitating data sharing, and coordinating administrative processes. Examples of G2G services include the exchange of government data, sharing of best practices, and the establishment of intergovernmental communication systems.

G2G applications within the realm of e-government primarily focus on internal procedures and the sharing of data between government sector organizations. This interaction is considered fundamental as it serves as the backbone of e-government initiatives, as highlighted by Bonham et al. (2001). The main objectives of G2G applications are to minimize costs, enhance strategic decision-making, and foster decentralization of strength across different categories of government, as emphasized by Heeks (2006).

The overarching aim of G2G applications is to establish a coherent and interconnected government system, placing emphasis on the concept of integrated services. By facilitating the exchange of information, databases, resources, capabilities, and skills between government agencies and departments, G2G applications contribute to improving the efficiency and effectiveness of administrative processes, as stated by Ndou (2004).

Improved communication between government entities stands out as one of the primary advantages of G2G applications. Through the reduction of duplication and redundancy in information and communication channels, governments can enhance their communication effectiveness and avoid unnecessary duplication of efforts, as discussed by Evans and Yen (2005). This streamlined communication and information sharing enable government organizations to collaborate more effectively, leading to streamlined processes, improved coordination, and more efficient decision-making.

To summarize, G2G applications in e-government play a crucial role in facilitating internal collaboration, data sharing, and communication among government organizations. Their main objectives include achieving cost reductions, enhancing strategic decision-making, promoting decentralization, and improving the overall effectiveness and efficiency of government operations.

2.3.4 Government to Employee (G2E)

The Government-to-Employee category entails the interactions between the government and its employees. G2E services are specifically designed to streamline internal administrative processes, improve communication, and provide access to employee-specific information. These services encompass various features such as employee portals, payroll management, leave applications, and training programs.

In the realm of e-government, G2E applications primarily focus on fostering a strong relationship between the government and its employees. These applications serve as effective tools for bringing staff together and facilitating information sharing among them, as highlighted by Ndou (2004). G2E services additionally encompass strategic frameworks that promote the execution of government objectives, human resource management, and budgeting, as mentioned by Riley (2001).

G2E services involve the provision of services and data by government agencies to employees, while also facilitating collaboration between employees and management levels, as noted by Chavan and Rathod (2009). These services enable employees to access necessary information, collaborate with colleagues, and engage in tasks related to their roles within the government organization.

Employee interaction with IT systems and procedures is a crucial aspect of G2E applications. This integration enables streamlined communication, efficient workflow management, and improved coordination among employees and various internal departments. By leveraging technology, G2E applications aim to enhance employee productivity, facilitate information sharing, and support the overall functioning of the government organization.

In summary, G2E applications in e-government focus on strengthening the connection between the government and its employees. These applications promote knowledge sharing, support human resource management, facilitate cooperation, and integrate employees with back-office systems and processes. By utilizing G2E services, government organizations can enhance employee engagement, streamline internal operations, and improve overall organizational efficiency. These classifications, as mentioned by Backus (2001), serve as a basis for categorizing e-government services based on the involved user groups, highlighting the different types of interactions and services provided in each category.

2.4 Service Quality

Quality of service has a fundamental significance in digital government services, which aim to meet and exceed customer expectations. In the past, quality of service was commonly regarded as the distinction between customer expectations and their opinions on the received service (Grönroos, 2001; Parasuraman, Zeithaml, & Berry, 1988).

Earlier definitions of service quality focused on how well a service fulfills customer demands or expectations (Lewis & Mitchell, 1990; Dotchin & Oakland, 1994). It was additionally described as customers' overall assessment regarding the service's superiority and inferiority (Zeithaml, Berry, & Parasuraman, 1990). An influential study by Parasuraman, Zeithaml, and Berry (1985)

revealed that customers judge the quality of service by their perception of actual performance relative to their expectations.

To summarize, service quality, from the customer's perspective, may be understood to be the extent of the difference between their expectations and their perceived service. Meeting or exceeding customer expectations is vital to offering excellent e-government services. By understanding and addressing customer expectations, governments can improve service quality and enhance customer satisfaction.

With regard to e-government, two main dimensions of service quality are distinguished: e-service quality and e-government service quality. Scholars have examined these dimensions separately and provided specific definitions for each.

E-service quality, which is more focused on business, concentrates on the quality of services delivered through websites and online platforms. According to Parasuraman (2002), e-service quality refers to how effectively and efficiently a website facilitates shopping, purchasing, and product/service delivery. Santos (2003) defines e-service quality as consumers' overall evaluation of the excellence and quality of e-service offerings in the virtual marketplace. It primarily pertains to the quality of service provided via the front-office website.

On the other hand, e-government service quality emphasizes the quality of service delivery within the e-government context. It refers to customers' overall assessment of quality in the online environment and significantly influences the effectiveness or otherwise of e-government initiatives (Bhattacharya, Gulla, & Gupta, 2012). E-government service quality also emphasizes the front-office website or portal and overall user satisfaction.

In summary, e-service quality describes the quality of service delivery in e-business, while e-government service quality specifically addresses the quality of service provided by government websites and portals. Both dimensions aim to ensure effective and efficient fulfilment of user needs when using technology to access services in their respective contexts.

2.4.1 E-service quality and e-government service Quality

In the realm of e-government, service quality is divided into two main dimensions: e-service quality and e-government service quality. These dimensions were studied separately, and scholars have provided distinct definitions for each.

E-service quality, which has a more business-oriented focus, revolves around the quality of service provided through websites and online platforms. Parasuraman (2002) defines e-service quality to mean the degree to which a web page enables efficient and successful transactions, purchases, and deliveries of products and services. Santos (2003) defines it as the overall evaluation and judgment of consumers regarding the excellence and quality of e-service offerings in the virtual marketplace. It is primarily concerned with the quality of service provided through the front-office website or portal.

To summarize, e-service quality pertains to the delivery of services in the domain of e-business, while e-government service quality specifically addresses the quality of service provided by government websites and portals. Both dimensions aim to ensure the effective and efficient

fulfilment of user needs when utilizing electronic channels to consume services within their respective contexts

2.5 Assessments of E-Government service quality

Assessing the quality of e-government services is crucial for enhancing government efficiency and delivering better services to users. Several approaches and frameworks have been developed to evaluate e-government service quality.

The European Commission conducts an annual benchmark study to measure public sector achievement and the development of e-government services. This study helps to evaluate the progress of e-government efforts and identify areas that require improvement.

Moreover, Halaris et al. (2006) have identified four categories for assessing e-government service quality:

- ❖ Back-office process performance layer: This layer evaluates the performance of underlying processes supporting e-government services, drawing from quality models used in traditional government services.
- ❖ Site technical performance layer: This layer focuses on technical factors, such as site reliability and security, to ensure the effective functioning of the e-government website or portal.
- ❖ Site quality layer: This layer examines factors associated with the usability as well as the interface design of the e-government website, aiming to provide a user-friendly experience with easy navigation and interaction.
- ❖ Customers' overall satisfaction: This layer measures users' satisfaction with e-government services and their overall experience, capturing the perceived level of quality in relation to their expectations.

Measuring e-government service quality can be achieved through self-evaluation within the organization, both during the development phase and after the implementation of e-services. This approach allows for continuous evaluation and improvement of services to meet user requirements and expectations.

In summary, implementing quality measurement frameworks and conducting assessments enables governments to monitor and enhance the quality of their e-government services. This, in turn, leads to improved service delivery and user satisfaction.

2.5.1 E-Government service quality model

The SERVQUAL model has been extensively utilized and adapted for use in e-service quality research. Originally proposed in the mid-1980s, the SERVQUAL model initially included ten dimensions aimed at measuring service quality. These dimensions covered various factors such as responsiveness, competence, access, courtesy, communication, credibility, security, understanding/knowing the customer, and tangibles. However, due to the overlapping nature of

these dimensions, the model underwent subsequent revisions and was simplified into five key dimensions: reliability, assurance, tangibles, empathy, and responsiveness.

Researchers have proposed various dimensions for assessing e-service quality across various fields and contexts. For example, Lee and Lin (2005) made modifications to the SERVQUAL model to evaluate e-service quality specifically with regard to online shopping. Their model incorporated dimensions such as website design, reliability, responsiveness, trust, and personalization.

Santos (2003) introduced the e-service quality model, which emphasized the significance of service quality in achieving success in e-commerce. In this model, two dimensions were introduced: incubative and active. The incubative dimension encompassed factors like content, structure, layout, linkage, appearance, and ease of use, while the active dimension included incentives, security, communication, support, efficiency, and reliability.

Other models, such as SITEQUAL (Webb & Webb, 2004) and ETAILQ (Wolfenbarger & Gilly, 2003), focused on specific aspects of e-service quality with respect to internet shopping and online selling, respectively.

Parasuraman, Zeithaml, and Malhotra (2005) developed E-S-QUAL, a two-stage approach for assessing e-service quality. The initial E-S-QUAL scale consisted of dimensions such as efficiency, fulfilment, system availability, and privacy. The second scale, E-RecS-QUAL, incorporated dimensions such as responsiveness, compensation, and contact. The primary objective of this approach was to enhance e-service quality.

These models and dimensions significantly contribute to the comprehension and assessment of e-service quality in diverse online contexts, offering helpful information for practitioners and researchers who aim to improve the quality of e-services.

2.5.2 E-GovQual

The e-GovQual model, derived from the SERVQUAL model, provides a valuable framework to assess the quality of e-government services delivered through government websites. It encompasses four key criteria: efficiency, trust, reliability, and support. This model is specifically designed to assess users' opinions on service quality when engaging with e-government sites or portals. In essence, the E-GovQual model offers a useful tool for analysing and understanding how users perceive the quality of e-government service delivery.

In terms of efficiency, the ease of use of an e-government service plays a significant role. It refers to how simple it is for customers to interact with the e-service. Factors such as setting up links with key search engines, using a concise URL, and having a consistent website structure can help customers find the website quickly and navigate it easily. Features like site maps, customized search functions, and personalization of information contribute to enhancing the ease of use. Personalization allows tailoring the website to individual customer preferences, such as language options and accessibility features for people with disabilities. Additionally, the ability to customize the system to recognize returning users and provide relevant links or remember user settings can improve the experience for frequent visitors.

Research by Zhang and Von Dran (2001) highlighted the importance of factors such as "easy to navigate," "clear layout of information," "up-to-date information," "search tool," and "accuracy of information" in the governmental domain. These factors contribute to enhancing the efficiency aspect of e-government service quality.

The E-GovQual model is designed to assess e-government services from a customer-focused perspective, emphasizing quality evaluation on the basis of user expectations. Unlike the E-S-QUAL model, which is primarily focused on commercial service websites, the E-GovQual model provides a comprehensive framework tailored specifically for government services

By utilizing the E-GovQual model, an assessment of MOTI's e-government services can be conducted, considering the dimensions of efficiency, reliability, trust, and support.

Efficiency

Efficiency plays a vital role in assessing the quality of e-government services. It refers to simplicity, effectiveness, and convenience when employing the e-service. Evaluating the efficiency dimension involves considering various factors that contribute to a smooth user experience. One critical factor is the ease of navigation. This entails having a well-organized website structure, a consistent layout, and a user-friendly interface that allow users to navigate through the site without confusion or difficulty. Providing features such as site maps or customized search functions facilitates quick access to desired information or services, whether through specific transactions, public agencies, or relevant keywords. A study conducted by Zhang and Von Dran (2001) emphasized the significance of an "easy to navigate" component in the context of government websites

Another aspect of efficiency is the accessibility of information. Government websites should guarantee that the data provided is up-to-date, reliable, and relevant to the users' needs. A clear layout of information helps users quickly locate the information they are seeking. Offering a search tool that effectively retrieves relevant information further enhances the efficiency of the e-service

Personalization of information is an additional variable that contributes to efficiency. Tailoring the website to individual users' preferences, such as language options beyond the country's official language or features that assist people with disabilities, enhances the user experience and makes the service more user-friendly.

Lastly, providing customization options that allow frequent visitors to customize the system settings, such as recognizing the user and presenting frequently used links on the first page, improves efficiency. This feature saves users time by providing quick access to their preferred services or information. Santos (2003) emphasized the significance of recognizing users and offering customized experiences to enhance efficiency.

By focusing on these aspects of efficiency, e-government websites can create a user-friendly environment that facilitates seamless interaction, quick access to information and service, and personalized experiences for users, ultimately enhancing the overall quality of e-government services.

Reliability

Reliability is a crucial dimension of e-government service quality that focuses on the trust beneficiaries place in the website to deliver services accurately and on time. It encompasses two main aspects: technical operation and service promises.

Technical operation means the proper functioning of the e-government website. It includes accessibility and availability. Accessibility means ensuring that the website can be used by as many individuals as possible without the need for modifications. This involves considering factors such as compatibility with different web browsers and providing alternative formats for users with disabilities. By enhancing accessibility, the website can cater to a wider range of users, ensuring equal access to electronic government services

Availability refers to the reliability and continuous availability of the online government service. It indicates the extent to which it is accessible to users whenever they need it. This can be achieved by ensuring that the website is operational 24/7 without significant downtime or disruptions. Fast loading and transaction speeds contribute to a positive user experience and enhance the perception of reliability.

The accuracy of service promises is another aspect of reliability. It means a website's capacity to fulfil the commitments or promises made to users regarding the services offered. This includes providing accurate and up-to-date information, ensuring that the services are delivered as described, and meeting the expected standards of quality. Reliability in this context instils confidence in users that the e-government website can be relied on to deliver the services they need accurately and as promised.

By prioritizing reliability, e-government websites can build trust among beneficiaries, leading to increased satisfaction and continued usage. Ensuring proper technical operation, accessibility, availability, and delivery of service promises are key factors in establishing reliability and enhancing the overall quality of e-government service.

Trust (privacy/security)

Trust is a crucial dimension of e-government service quality, representing the customer's confidence in the website's ability to ensure privacy and security throughout the e-service process. It encompasses two sub-dimensions: privacy and security.

Privacy relates to the protection of personal information and ensuring anonymity. It involves safeguarding personal data, preserving the confidentiality of user information, and obtaining informed consent for data collection and usage. Customers should feel assured that their personal information will not be misused or disclosed without their consent.

Security primarily focuses on protecting users from potential risks such as financial loss and fraud associated with the use of their credit card or other sensitive monetary data. It involves implementing measures to prevent unauthorized access, encrypting messages, and data transmission, and establishing secure transaction protocols. By ensuring strong security measures, e-government websites can instil trust in users, assuring them that their transactions and interactions are protected.

Researchers, such as Gefen et al. (2003) and Zhao & Zhao (2010), have highlighted the significance of trust in e-services, especially when it comes to e-government. Trust serves a vital function in fostering customer confidence and encouraging user participation in e-government services. Implementing security measures such as data encryption, access control, and user authentication processes contributes to strengthening the trustworthiness of e-government websites. These measures enhance the overall sense of security among users and promote a greater level of trust in the services provided.

Support

Support, also referred to as interactivity, is a crucial aspect of e-government quality of service that focuses on the assistance provided to users during their interactions with the website. It encompasses various forms of support and communication channels to facilitate users' searches for information and their transactions. The support dimension has an important impact on enhancing the overall quality of electronic government services and ensuring a positive user experience.

To provide effective support, e-government websites can offer user-friendly guidelines, help pages, and frequently asked questions (FAQ) sections. These resources aim to address common queries and provide guidance to users navigating the website and accessing the available services. Additionally, the availability of various interaction channels like phone, e-mail, and message boards enables users to seek assistance and engage with the organization's representatives directly. Personalized guidance can be offered through channels like email or traditional methods such as telephone, fax, or postal mail, depending on the users' preferences and needs.

The dimensions of service quality introduced by Parasuraman et al. (1988) can be relevant in the context of user-organization employee interactions. These dimensions encompass elements such as timely and efficient handling of customer inquiries, employees' expertise, the politeness demonstrated by employees, their ability to inspire trust and confidence, and their proficiency in resolving issues. It is crucial to guarantee that users receive timely and informative responses from well-informed and respectful staff members, as this contributes to a favourable support encounter.

Moreover, enabling users to monitor the state and advancement of their deals is highly valued. This feature allows users to stay informed about the various stages of their interactions with the e-government service and provides transparency and reassurance. Users can have visibility into the processing of their requests or applications, which enhances their confidence and trust in the system.

It's essential to keep in mind that the support dimension becomes particularly relevant when users encounter problems or require assistance. Effective support mechanisms help users overcome obstacles, address concerns, and receive the necessary guidance to complete their transactions successfully.

By prioritizing support and interactivity, e-government websites can ensure that users feel supported throughout their interactions, thereby enhancing customer satisfaction, trust, and the overall quality of e-government service.

2.6 Customer Satisfaction

Satisfaction is an important consideration when evaluating the effectiveness and achievement of electronic government services. This refers to the customer's assessment of whether the service received meets their needs and expectations. Satisfaction is a subjective evaluation that arises from comparing what was received with what was expected. It represents the customer's overall attitude and perception toward a particular service or product.

Website user satisfaction pertains to the user's practical perception and evaluation of different aspects of the website. It is intricately linked to the user's overall experience with the website and significantly influences their intention to utilize and actual usage of the service. When users have positive experiences with the website and express higher levels of satisfaction, they are more inclined to continue using the service. Conversely, if users encounter dissatisfaction, it may lead to a cessation or abandonment of the service.

User satisfaction is an encompassing indicator of success, rather than a distinct aspect of success. It is a subjective assessment that reflects the degree to which customers perceive the service to fulfil their needs and meet their expectations. Maintaining customer satisfaction is vital to prevent the discontinuation or abandonment of the service. Even if the service has been initially adopted, if it fails to align with the user's needs and expectations, discontinuation becomes a possibility. Hence, customer satisfaction stands as a significant factor in ensuring the continuous utilization and acceptance of e-government services.

Studies have indicated that customer satisfaction results in, contributes to, or fosters continued intention to use, while dissatisfaction can result in discontinuation or rejection of the service. Discontinuation can take two forms: disenchantment and replacement. Disenchantment discontinuance occurs when dissatisfaction with the performance of the innovation leads to its rejection. Replacement discontinuance happens when a superior alternative is chosen over the existing service. Understanding the levels of satisfaction or dissatisfaction and the perceptions of users is crucial for service providers, including governments, to assess the genuine worth and efficacy of their e-government services.

To summarize, user satisfaction plays an essential part in assessing the level of service and effectiveness of e-government services. It encompasses users' perceptions and attitudes towards the service and directly influences their intention to use and continued utilization. Monitoring and comprehending user satisfaction levels are imperative for improving the quality and efficiency of e-government services.

2.7 Quality of e-government Services and customer satisfaction

The significance of customer satisfaction and the quality of service has been increasingly acknowledged in various domains, including e-services and e-government. Extensive research has examined the connection between service quality and customer satisfaction, recognizing them as separate but interconnected constructs.

In the realm of e-services, the level of service offered plays a vital role in shaping customer satisfaction. When users perceive the e-service to have high quality, it leads to greater satisfaction.

This aligns with the general understanding that satisfaction is an outcome of service quality, as customers tend to be more satisfied when they perceive the product or service as being of high quality.

Similarly, research has demonstrated the impact of e-government service quality on user satisfaction. The quality of e-government services directly influences the satisfaction levels of users. When users perceive the e-government services to be of high quality, their satisfaction with the experience increases.

Numerous studies have explored the cause-and-effect relationship between e-government service quality and customer satisfaction, confirming that quality is the cause and satisfaction is the outcome. Enhancing the quality of e-government services is essential for improving user satisfaction. By focusing on service quality, governments can effectively enhance user satisfaction throughout the realms of digital services and e-government.

To summarize, service quality and customer satisfaction are separate yet interconnected concepts. The quality of e-services, including e-government services, has a direct impact on customer satisfaction. Improving service quality is crucial for enhancing customer satisfaction when it comes to e-services and e-government.

EMPIRICAL LITERATURE REVIEW

Papadomichelaki and Mentzas (2012) conducted a study aimed at developing a model for e-government service quality. Their model consisted of four dimensions: confidence, effectiveness, dependability, and citizen assistance. The objective was to identify the factors influencing citizen contentment and facilitate the enhancement of government-to-citizen systems.

Zavareh et al. (2012) focused on e-banking services in Iran and investigated the impact of e-service quality on e-customer satisfaction. The research identified various factors contributing to e-service quality, including satisfaction, trust and security, dependability, efficient services, website aesthetics, contact and responsiveness, and ease of use, which positively influenced e-customer satisfaction.

Bannister and Connolly (2011) explored the concepts of transformative government and trust. They proposed that technology-driven changes have the potential to enhance citizens' trust in government, leading to transformative outcomes.

Eid (2011) examined the factors influencing customer satisfaction, loyalty, and trust in e-commerce (B2C) within the context of Saudi Arabia. The study revealed that customer satisfaction strongly impacted customer loyalty, while customer trust had a less significant influence on loyalty.

AlAwadhi, S., & Morris, A. (2008). The use of mobile services by citizens in the UAE: Service quality dimensions and their impact on user satisfaction. *International Journal of Electronic Government Research*, 4(3), 1-20. This study focused on the dimensions of service quality in mobile government services and their impact on user satisfaction in the United Arab Emirates.

Alshaikh, F. M., & Karjaluoto, H. (2015). Understanding Saudi Arabian users' trust in and satisfaction with e-government services: An empirical investigation. *Government Information*

Quarterly, 32(4), 402-420. This study explored the factors influencing trust and satisfaction with e-government services in Saudi Arabia, providing insights into the specific context and user perceptions.

Díaz-Díaz, R., Fernández, I., & Carrasco, J. A. (2013). The role of information in e-Government: An empirical analysis of citizens' perception. *Government Information Quarterly*, 30(4), 379-388. This research examined the role of information quality in citizens' perception of e-government services, highlighting the importance of accurate and reliable information for enhancing satisfaction.

Irani, Z., Love, P. E., & Elliman, T. (2008). The role of quality in e-Government: An empirical study. *Journal of Enterprise Information Management*, 21(6), 615-634. This study investigated the impact of e-government service quality on citizen satisfaction and perceived value, emphasizing the importance of quality factors in driving positive outcomes.

Rana, N. P., & Dwivedi, Y. K. (2015). Citizen's adoption of an e-Government system: Validating extended social cognitive theory (SCT). *Government Information Quarterly*, 32(2), 172-181. This research validated an extended social cognitive theory in the context of citizen adoption of e-government systems, examining the factors influencing adoption and satisfaction.

Heeks, R., & Bailur, S. (2007). Analyzing e-Government Research: Perspectives, Philosophies, Theories, Methods, and Practice. *Government Information Quarterly*, 24(2), 243-265. This article provides a comprehensive analysis of e-government research, including various perspectives, theories, methodologies, and practices. It offers valuable insights into the existing literature on e-government service quality and customer satisfaction.

Al-Hujran, O., Al-Debei, M. M., Chatfield, A., & Migdadi, M. (2015). The potential effect of online services quality on citizen satisfaction: An empirical investigation in Saudi Arabia. *Transforming Government: People, Process and Policy*, 9(2), 220-249. This study examines the potential effect of online service quality on citizen satisfaction in Saudi Arabia. It explores dimensions of online service quality and their impact on different aspects of citizen satisfaction.

Ryu, M. H., & Kim, H. D. (2007). The impact of web quality and playfulness on user acceptance of online retailing. *Information & Management*, 44(3), 263-275. Although this study focuses on online retailing, it offers insights into the impact of web quality on user acceptance and satisfaction. It highlights the importance of website quality factors in influencing customer satisfaction in an online context.

Irani, Z., Elliman, T., Jackson, P., & Williams, M. D. (2007). The impact of user satisfaction with government on trust in government. *Information Systems Frontiers*, 9(1), 35-47. This research examines the relationship between user satisfaction with e-government services and trust in government. It demonstrates how user satisfaction contributes to trust-building processes and shapes citizens' perceptions of government.

Almarashdeh, I., Ahmad, M. S., & Al-Qirim, N. (2017). Assessing the quality of e-government services: A citizen perspective. *Government Information Quarterly*, 34(4), 631-642. This study assesses the quality of e-government services from a citizen's perspective. It examines the impact

of service quality dimensions on citizen satisfaction and provides insights into factors influencing the perceived quality of e-government services.

Qureshi, I., Fang, Y., & Ramsey, E. (2008). Examining the relationship between website quality and e-commerce success: A respecification and validation of the DeLone and McLean model. *Information Systems Journal*, 18(6), 529-557. This research investigates the relationship between website quality and e-commerce success, including customer satisfaction. It presents a respecification and validation of the DeLone and McLean model, a widely used framework for assessing information system success.

Asan, U., & Montazemi, A. R. (2008). E-government satisfaction: A study of user perceptions in Kuwait. *Transforming Government: People, Process and Policy*, 2(2), 82-97. This study explores e-government satisfaction from the perspective of users in Kuwait. It examines the factors that influence citizen satisfaction with e-government services and provides insights into the specific context of Kuwait.

Deng, Z., Lu, Y., Wei, K. K., & Zhang, J. (2010). Understanding customer satisfaction and loyalty: An empirical study of mobile instant messages in China. *International Journal of Information Management*, 30(4), 289-300. Although not specific to e-government, this study examines customer satisfaction and loyalty in the context of mobile instant messaging services. It provides insights into factors influencing customer satisfaction and loyalty, which can be relevant to the e-government service context.

Dwivedi, Y. K., Papazafeiropoulou, A., & Choudrie, J. (2012). Examining the influence of service quality and secondary influence on the adoption of e-government services: A systematic approach. *International Journal of Information Management*, 32(6), 574-589. This study investigates the influence of service quality and secondary factors on the adoption of e-government services. It provides insights into the relationship between service quality, customer satisfaction, and the adoption of e-government services.

Alawadhi, S., & Morris, A. (2008). The use of the UTAUT model in the adoption of e-government services in Kuwait. *Proceedings of the European and Mediterranean Conference on Information Systems*, 6, 2-3. This research applies the Unified Theory of Acceptance and Use of Technology (UTAUT) model to understand the adoption of e-government services in Kuwait. It examines the factors that influence citizen acceptance and use of e-government services.

Al-Gahtani, S. S., & King, M. (1999). Attitudes, satisfaction and usage: Factors contributing to each in the acceptance of information technology. *Behaviour & Information Technology*, 18(4), 277-297. While not specific to e-government, this study explores factors contributing to attitudes, satisfaction, and usage of information technology. It provides insights into the factors that influence user acceptance and satisfaction with technology-based services, which can be relevant to e-government services.

Choudrie, J., Zamani, E. D., & Alrouh, B. (2016). Factors influencing e-government adoption in Saudi Arabia: A citizen perspective. *Information Systems Frontiers*, 18(2), 265-279. This study examines the factors influencing e-government adoption from a citizen perspective in Saudi

Arabia. It investigates the role of factors such as trust, perceived usefulness, perceived ease of use, and social influence in shaping citizen adoption of e-government services.

Cheng, Y. M., & Liu, C. H. (2009). Investigating the antecedents and consequences of e-government service quality: Satisfaction and user intentions. *Government Information Quarterly*, 26(3), 404-412. This study explores the antecedents and consequences of e-government service quality, focusing on user satisfaction and intentions. It examines the relationships between various dimensions of service quality, user satisfaction, and user intentions to continue using e-government services.

Kim, D. J., Ferrin, D. L., & Rao, H. R. (2008). Trust and satisfaction, two stepping stones for successful e-commerce relationships: A longitudinal exploration. *Information Systems Research*, 19(2), 260-279. While not specific to e-government, this longitudinal study investigates the role of trust and satisfaction in successful e-commerce relationships. The findings provide insights into the importance of trust and satisfaction as key factors in building and maintaining relationships in an online context.

Wang, Y. S., Wang, Y. M., Lin, H. H., & Tang, T. I. (2003). Determinants of user acceptance of Internet banking: An empirical study. *International Journal of Service Industry Management*, 14(5), 501-519. This empirical study focuses on the determinants of user acceptance of Internet banking services. Although not directly related to e-government, it provides valuable insights into factors that influence user acceptance of online services, which can be applicable to e-government service adoption.

Moon, M. J., & Kim, Y. (2001). Extending the TAM for a World-Wide-Web context. *Information & Management*, 38(4), 217-230. This study extends the Technology Acceptance Model (TAM) to the World Wide Web context. It explores factors influencing users' attitudes and intentions to use web-based services, providing insights into user acceptance and adoption behavior.

Alshehri, M., Drew, S., & Alhussain, T. (2020). E-government service quality and citizen satisfaction: A literature review and research agenda. *Government Information Quarterly*, 37(3), 101491. This literature review synthesizes existing studies on e-government service quality and citizen satisfaction. It provides a comprehensive overview of the topic, identifies gaps in the literature, and proposes a research agenda for future studies in this area.

Dwivedi, Y. K., Rana, N. P., Jeyaraj, A., Clement, M., & Williams, M. D. (2019). Re-examining the unified theory of acceptance and use of technology (UTAUT): Towards a revised theoretical model. *Information Systems Frontiers*, 21(3), 719-734. This study revisits the Unified Theory of Acceptance and Use of Technology (UTAUT) and proposes a revised theoretical model. While not specific to e-government, it provides insights into the factors that influence user acceptance and use of technology, which can be relevant to understanding e-government service adoption.

Cho, M., & Kwon, Y. (2019). The impact of perceived quality of government digital services on citizen trust and satisfaction: Evidence from South Korea. *Government Information Quarterly*, 36(3), 526-536. This study examines the impact of perceived quality of government digital services

on citizen trust and satisfaction. It highlights the importance of service quality in building trust and satisfaction among citizens in the context of e-government.

Scholl, H. J. (2011). E-government: Towards a public administration approach. *Journal of E-Government Studies and Best Practices*, 2011, 1-11. This article discusses the concept of e-government from a public administration perspective. It explores the key challenges and opportunities associated with e-government implementation and emphasizes the need for a holistic approach to e-government service delivery.

Heeks, R. (2006). *Implementing and managing e-government: An international text*. Sage Publications. This book provides a comprehensive overview of e-government implementation and management. It covers various aspects of e-government, including service quality, citizen satisfaction, and the challenges involved in effectively implementing e-government initiatives.

These studies provide valuable insights into the correlation between e-government service quality and customer satisfaction, highlighting factors such as confidence, effectiveness, dependability, citizen assistance, website aesthetics, ease of use, and information quality. Understanding these factors can contribute to improving e-government services and enhancing citizen satisfaction.

2.8 Conceptual framework of the study

The study on MOTI's e-trade likely employed a conceptual framework that considered Efficiency, Trust, Reliability, and Support as independent variables for evaluating customer satisfaction. These dimensions were derived from E-GovQual, a measurement scale used to assess the quality of e-government services on government websites, as discussed in the research conducted by Papadomichelaki and Mentzas in 2011. To examine the relationship between the independent variables (Efficiency, Trust, Reliability, and Support) and the dependent variable (customer satisfaction), a statistical model was likely utilized. The purpose of this model was to assess the significance and impact of the e-service quality dimensions on customer satisfaction, investigating the connections between these variables. The specific statistical techniques and analyses employed would depend on the research methodology and design implemented in the study.

The conceptual foundation for this study was based on the E-GovQual model.

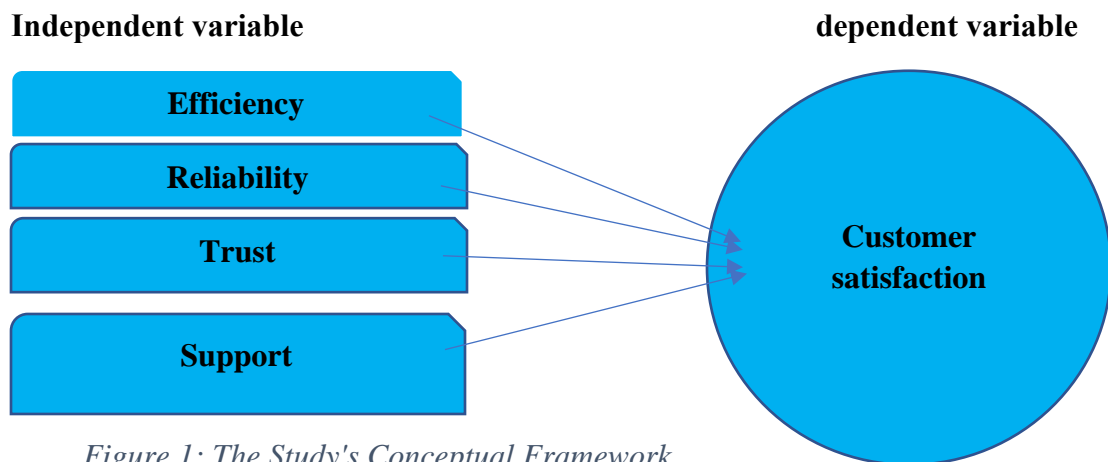


Figure 1: The Study's Conceptual Framework

Adopted from Papadomichelaki and Mentzas (2012)

The conceptual framework used in the research proposes that a relationship exists between the dimensions of service quality (efficacy, reliability, trust, and support) and customer satisfaction in the context of e-government services in e-trade. In accordance with this framework, the study puts forward the following hypotheses:

H1: The e-government service quality of e-trade directly influences customer satisfaction. This hypothesis suggests that the overall quality of e-government services in e-trade has a direct impact on customer satisfaction. It implies that higher service quality leads to higher levels of customer satisfaction.

H1a: Efficiency positively affects customer satisfaction. This hypothesis states that the efficiency dimension of e-government services, which relates to the ease and simplicity of using the services, has a positive effect on customer satisfaction. It suggests that when customers perceive the e-trade system to be efficient and user-friendly, their satisfaction levels are expected to be higher.

H1b: Reliability positively affects customer satisfaction. This hypothesis suggests that the reliability dimension of e-government services, which pertains to the consistency and dependability of the services, positively influences customer satisfaction. It implies that when customers perceive the e-trade system to be reliable and trustworthy in terms of service delivery, their satisfaction levels are expected to be higher.

H1c: Trust positively affects customer satisfaction. This hypothesis states that the trust dimension of e-government services, which involves customers' confidence in the security and privacy of their information, has a positive effect on customer satisfaction.

It suggests that when customers trust the e-trade system to protect their personal data and ensure privacy, their satisfaction levels are expected to be higher.

H1d: Support has a positive effect on customer satisfaction.

This hypothesis suggests that the support dimension of e-government services, which refers to the assistance and guidance provided to customers during their interactions with the system, positively influences customer satisfaction. It implies that when customers receive adequate support and assistance, such as user-friendly guidelines and responsive customer service, their satisfaction levels are expected to be higher.

These hypotheses propose the expected relationships between the service quality dimensions and customer satisfaction in the context of e-government services in e-trade. The study would likely test these hypotheses using appropriate research methods and statistical analyses to validate or refute the proposed relationships.

CHAPTER THREE

RESEARCH METHODOLOGY

The methodology of this research utilized a quantitative analysis approach to investigate the relationship between the variables of interest. By adopting a quantitative research methodology, the study aimed to gather empirical evidence and generate quantitative insights into the association between the dimensions of service quality (efficacy, reliability, trust, and support) and customer satisfaction within the context of e-government services in e-trade. Several studies have utilized a quantitative research approach such as, Papadomichelaki and Mentzas (2012), a quantitative analysis approach was used to develop a model for e-government service quality. Similarly, Zavareh et al. (2012) employed quantitative methods to investigate the impact of e-service quality on e-customer satisfaction in the context of e-banking services.

3.1 Research approach

Quantitative research involves systematically exploring and measuring quantitative features, phenomena, and relationships through the use of numerical data. It aims to establish hypotheses based on theoretical statements and measure variables to draw generalizations about the population of interest.

A quantitative research approach was used in this study to evaluate the impact of MOTI's e government service dimensions (efficacy, reliability, trust, and support) on customer satisfaction. This approach involves selecting representative samples from the target population, gathering numerical data through surveys or questionnaires, and applying statistical methods to analyse the data and test hypotheses

The choice of a quantitative research approach is appropriate when the aim is to quantify the relationships between variables and draw general conclusions based on numerical evidence. By employing this approach, the study seeks to investigate the connections between different facets of e-government services and customer satisfaction, offering valuable insights into how these dimensions impact users' overall satisfaction.

It is important to emphasize that choosing an approach to research should align with the study's objectives, questions, and the nature of the variables being studied. For this particular research, the quantitative approach was deemed suitable for examining the impacts of MOTI's e-government service dimensions on customer satisfaction.

3.2 Research design

The methodology used in this research encompasses both explanatory and descriptive elements. The explanatory research aspect aims to investigate how the independent variable (quality of e-government service dimensions) impacts the dependent variable (customer satisfaction) and understand the causal relationship between them. This is in line with the research's objective of exploring and explaining the impact of MOTI's e-government service aspects on achieving customer satisfaction.

Additionally, the investigation incorporates a descriptive component, which focuses on answering "what" and "how" research questions. Descriptive studies aim to describe and document the characteristics, behaviors, and relationships of the variables being investigated. In this investigation, information will be gathered through a structured questionnaire with limited response options, allowing for the description of the e-government service quality aspects and their relationship with customer satisfaction.

By combining explanatory and descriptive research designs, the investigation seeks to offer a comprehensive knowledge of the relationship between the e-government service quality dimensions and customer satisfaction. Inferential statistical tools will be utilized to analyze and interpret the data, providing insights into the strength and significance of the relationships.

It's essential to keep in mind that this research follows a cross-sectional design, capturing data at a specific point in time. This approach is suitable for examining the relationships between variables at a particular moment and can offer valuable insights into the current state of the phenomenon under investigation.

In summary, the combination of explanatory and descriptive research designs, along with the cross-sectional nature of the study, allows for a thorough exploration and explanation of how MOTI's e-government service aspects impact customer satisfaction

3.3 Data Type and Source

In this research, a combination of primary and secondary data sources was utilized to gather relevant information for achieving the research objectives. Primary data consists of data collected by the investigator herself specifically for the study, while secondary data refers to data previously collected by others for different purposes.

For collecting primary data, a questionnaire was employed to collect data regarding customers' perceptions of e-service quality and satisfaction. Through direct interaction with participants, the researcher obtained their responses to the questionnaire items. The primary data collected through the questionnaire will provide valuable insights into customers' perceptions of e-service quality and their levels of satisfaction, enabling an examination of the relationship between these variables.

In addition to primary data, secondary data was gathered from various sources such as journals, books, publications, and the Internet. The secondary data served multiple purposes in this study. Firstly, it facilitated a better understanding and clarification of the research problem by providing background information on the topic of e-government service quality and customer satisfaction. Secondly, it aided in identifying gaps in prior scholarly work, allowing the study to be positioned within the existing literature and contribute to filling those gaps. Lastly, the secondary data played a role in the formulation and testing of hypotheses, as well as in the design of the questionnaire.

To ensure credibility and reliability of the data, proper referencing and citation techniques were employed when using secondary data sources. The combination of primary and secondary data sources enhances the comprehensiveness and validity of the findings, allowing for a robust

analysis of the relationship between e-service quality and customer satisfaction in the context of e-government services

By incorporating both primary and secondary data sources, the researcher study benefits from a comprehensive and well-rounded approach to data collection. The primary data allows for the specific investigation of customers' perceptions and satisfaction, while the secondary data provides a broader context and support for your research objectives.

3.4 Sample size

In this research, the intended demographic includes MOTI customers in Yeka Sub City who receive various services in the Addis Ababa region.

3.4.1 Target population

The population to be studied is the MOTI customer base in Yeka Sub City, with a total population of 46,781. This population represents the individuals who have utilized the MOTI e-service site and have accessed the services provided by the company.

3.5 Sampling procedure

3.5.1 Sample size determination

Based on the Taro Yamane (1967) sample size determination method and the given population size of 46,781 MOTI customers in Yeka Sub City, the sample size for your study is determined to be 400. This sample size calculation ensures that the sample is representative of the population and allows for efficient, reliable, and flexible data collection.

The formula used is:

$$n = N / (1 + N(e)^2)$$

Where:

n is the sample size,

N is the population size (46,781), and

e is the sampling error (0.05).

By substituting the values into the formula, the calculation is as follows:

$$n = 46,781 / (1 + 46,781(0.05)^2)$$

$$n = 399.9 \approx 400$$

Therefore, a sample size of 400 is appropriate for this study. This sample size will provide sufficient information for drawing meaningful conclusions regarding the target population of MOTI customers in Yeka Sub City.

Table 3.1: list of samples in MOTI Addis Ababa region from 12 woreda that are found in Yeka Sub City

| Sample woreda | Total populations | Percent | Sample |
|---------------|-------------------|---------|--------|
| Woreda 1 | 2,766 | 5.91% | 23.65 |
| Woreda 2 | 3,601 | 7.7% | 30.79 |
| Woreda 3 | 1,483 | 3.2% | 12.68 |
| Woreda 4 | 1,347 | 2.9% | 11.51 |
| Woreda 5 | 2,511 | 5.4% | 21.47 |
| Woreda 6 | 2,490 | 5.3% | 21.29 |
| Woreda 7 | 3,573 | 7.63% | 30.55 |
| Woreda 8 | 7,069 | 15.1% | 60.44 |
| Woreda 9 | 7,739 | 16.5% | 66.17 |
| Woreda 10 | 3,142 | 6.7% | 26.86 |
| Woreda 11 | 4,809 | 10.3% | 41.11 |
| Woreda 12 | 6,251 | 13.4% | 53.45 |
| Total | =46,781 | = 100% | 400 |

Source: researchers' own construct

3.5.2 Sampling technique

For this study, a stratified random sampling technique was chosen as the sampling method. Stratified sampling involves dividing the population into specific subgroups or strata based on certain characteristics and then selecting samples from each stratum. By using this approach, the aim is to ensure that the sample represents the diversity and variation present within the overall population.

The decision to employ stratified random sampling is rooted in the goal of obtaining a representative sample that accurately reflects the characteristics and composition of the larger population. This technique helps to minimize bias and increase the precision of the study's findings by accounting for the heterogeneity within the population.

The strata or subgroups are defined based on relevant criteria or variables that are considered important for the research objectives. These criteria could include demographic factors, such as age, gender, or location, as well as other relevant characteristics that are deemed significant for the study.

By employing stratified random sampling, the researcher can ensure that the selected sample adequately represents the various subgroups within the population, allowing for more accurate generalizations and inferences to be made. This sampling technique enhances the validity and reliability of the study's findings, contributing to the overall robustness of the research methodology. In this case, the Addis Abeba region was divided into eleven strata: Bole (BL), Yeka (YK), Gulele (GU), Nifasilklafto (NL), Kirkos (KK), Addis Ketema (AK), Akakikaliti (AK), Lideta (LD), Kolfekeraniyo (KIK), Arada (AR), and Lemikura (LK). From each sub-city, the researcher has chosen only one sample.

Overall, by using a stratified random sampling approach, researcher aim to ensure that this sample represents the diversity within the Addis Ababa region and that can make meaningful inferences about the population of MOTI customers in Yeka Sub City.

3.6 Data collections technique

In this study, the primary method of data collection involves conducting a survey using a self-administered questionnaire. The questionnaire is designed to collect data from consumers of MOTI's e-government services and assess their perceptions and satisfaction regarding the quality of these services.

The questionnaire comprises three sections. The first section, Section A, focuses on demographic factors and includes questions related to respondents' age, gender, education level, current position, nature of their business, and access to an e-trade site. This section aims to gather information about the characteristics of the respondents.

Section B of the questionnaire is adapted from a previous study by Papadomichelaki and Mentzas (2011) and is designed to measure respondents' perceptions of the quality dimensions of e-government services, specifically efficiency, reliability, trust, and support. It consists of 17 items, and respondents are asked to rate their level of agreement or disagreement on a 5-point Likert scale, ranging from strongly disagree to strongly agree.

Section C of the questionnaire includes a single question to measure overall customer satisfaction with MOTI's e-services. Respondents are asked to rate their satisfaction on a 5-point Likert scale.

To facilitate the data collection process, an online platform, specifically, Google Forms, is utilized to administer the questionnaire. This online survey approach allows respondents to complete the survey at their convenience, without the presence of a researcher. This method offers advantages such as scalability, efficiency, and the ability to collect a large amount of data from a diverse population.

By employing this data collection technique, the researcher aims to gather comprehensive data on respondents' perceptions, satisfaction levels, and demographic characteristics related to MOTI's e-government services.

3.7 Validity and Reliability

In this study, careful attention was given to both validity and reliability to ensure the accuracy and consistency of the collected data.

Validity

Validity refers to the extent to which a measurement instrument accurately measures the construct it intends to assess. To establish validity, various steps were taken. A pilot study was conducted to assess face validity, which involved evaluating the questionnaire items to ensure they adequately represent the construct being measured. Expert judgment and a review of the relevant literature were used to verify the content validity of the questionnaire. Additionally, exploratory factor

analysis was performed to confirm the conceptual validity and convergent validity of the questionnaire, ensuring that the items accurately captured the intended construct.

Furthermore, data was collected from reliable sources, specifically respondents with experience in using online services, to enhance the validity of the study. The survey questions were developed based on a comprehensive literature review and established frameworks, aligning the study with existing knowledge. The questionnaire underwent a pre-test by a group of respondents to identify any necessary revisions for improved validity. Lastly, the data collection period was carefully chosen to avoid major external events that could significantly influence the topic of study, ensuring the stability of the data collected.

Reliability

Reliability, on the other hand, refers to the consistency and stability of the measurements obtained from a questionnaire. In this study, the reliability of the questionnaire was assessed using Cronbach's alpha coefficient, which measures the internal consistency of the scale items. The pilot survey yielded a high Cronbach's alpha score of 0.989, indicating strong internal consistency and stability of the questionnaire. This suggests that the items in the questionnaire are measuring the same underlying attribute reliably, and consistent results can be expected.

By addressing both validity and reliability, this study ensures that the data collected accurately represents the intended construct and that the measurements are consistent and dependable.

Table 3.2 - Questionnaire Reliability Analysis Results

| Reliability test | |
|------------------|----|
| Alpha value | N |
| .989 | 21 |

Source: SPSS (survey data, 2023)

In general, this study aimed to uphold the accuracy, consistency, and representativeness of the collected data by incorporating measures of validity and reliability into the questionnaire design and testing process. By doing so, the researchers sought to ensure that the data accurately reflects the intended construct and can be relied upon to yield consistent and meaningful results.

3.8 Data analysis technique

In this study, the collected data was analyzed using SPSS version 26 to address the research objectives. Various data analysis techniques were applied to gain insights and achieve the study's goals. The techniques used include descriptive statistics, reliability analysis, correlation analysis, and multiple regression analysis.

Descriptive statistics were used to summarize and describe the data, providing an overview of the responses and revealing patterns in the variables. Measures such as frequencies, percentages, means, and standard deviations were calculated to better understand the distribution and central tendencies of the data.

Reliability analysis was performed to assess the internal consistency of the questionnaire items. By calculating Cronbach's alpha coefficient, the reliability of the scale was evaluated. A high value of Cronbach's alpha indicates good internal consistency among the items, implying that they measure the same underlying construct reliably.

Correlation analysis was conducted to examine the relationships between variables. By calculating correlation coefficients, such as Pearson's correlation coefficient, the strength and significance of the associations between variables were determined. This analysis helped identify any patterns or dependencies between the variables under investigation.

Multiple regression analysis was employed to assess the impact of the independent variables (e-government service quality dimensions) on the dependent variable (customer satisfaction). This analysis enabled the quantification of the relationships between multiple independent variables and the dependent variable. By understanding the impact of changes in the independent variables on the dependent variable, the relative importance of each independent variable in explaining the variation in customer satisfaction was determined.

By utilizing these data analysis techniques, the study aimed to gain insights into the relationships, patterns, and influences among variables of interest. These techniques help in drawing meaningful conclusions and addressing the research objectives of the study

3.9 Ethical consideration

Ethical considerations are of utmost importance in conducting any research, including business research. In this study, it was crucial to address ethical issues to safeguard the well-being of participants and uphold the integrity of the research. The following ethical considerations were taken into account:

- ❖ Confidentiality: Measures were implemented to maintain the confidentiality and secrecy of participants' information. This involved securely storing any personal or sensitive data collected and ensuring that unauthorized individuals could not access or disclose this information.
- ❖ Anonymity: Participants' identities were concealed in all study materials. This means that any personal identifiers or information that could reveal the identity of the participants were removed or anonymized. By ensuring anonymity, participants' privacy and confidentiality were protected, and their responses could not be linked back to them individually.
- ❖ Informed Consent: Participants were provided with clear and understandable information about the study and its purpose. They were fully informed about the voluntary nature of their participation and their rights as research subjects. Prior to their involvement, participants gave their informed consent, indicating their complete understanding and willingness to participate.
- ❖ Violation of Privacy: Measures were taken to avoid any violation of participants' privacy. Data collection and storage procedures were designed to protect participants' personal information and prevent unauthorized access. The researcher respected participants'

privacy and ensured that their personal information was used only for the purposes of the study.

- ❖ Deception: The study did not involve any deception. Participants were provided with accurate and truthful information regarding the research objectives and procedures. Transparency and honesty were maintained throughout the study, establishing trust and upholding ethical standards.

By addressing these ethical considerations, the study was conducted in an ethical manner, with a focus on safeguarding participants' rights, privacy, and confidentiality. Adhering to ethical guidelines is crucial for maintaining trust and upholding the integrity of the research process.

CHAPTER FOUR

4.1 Introduction

The introduction serves as a foundation for the subsequent sections of the chapter, offering an overview of the study's objectives and conclusions. It outlines the chapter's structure and emphasizes the key areas that will be discussed, including the socio-demographic characteristics of the respondents, descriptive statistical analysis, and the relationship between independent and dependent variables. The chapter aims to present and analyse the findings obtained from the data collected through a questionnaire administered via Google Forms

4.2 Data analysis

In this section, the process of data analysis is described. The study's sample size is indicated, revealing that out of the initially selected 400 MOTI e-trade service customers, 362 participants responded, resulting in a response rate of 90.5%. SPSS 26 software was utilized for data analysis.

Descriptive statistics, such as frequency, percentages, means, and standard deviations, were employed to summarize the socio-demographic characteristics of the respondents. These statistical measures provide a concise summary of the participant's demographic information and their perceptions of both independent and dependent variables.

To examine the relationship between each independent variable (efficiency, trust, reliability, and support) and overall perceived satisfaction, Pearson's correlation coefficient was utilized. This statistical measure determines the strength and direction of the linear relationship between variables.

Furthermore, multiple linear regression analysis was conducted to assess the impact of each e-government service quality attribute on customer satisfaction. This analysis aids in determining the extent to which independent variables predict the dependent variable.

By employing these statistical techniques, the researcher aimed to gain insights into the participants' perceptions and establish relationships between variables, thereby drawing meaningful conclusions regarding customer satisfaction with MOTI e-government services.

4.3 Summary of socio-demographic characteristics

Table 4.1: Description of Survey Respondents' Socio-Demographic Characteristics (Age and Gender)

| | | F | % |
|--------|--------|-----|-------|
| Age | Female | 112 | 30.9 |
| | Male | 250 | 69.1% |
| Gender | 18-30 | 83 | 22.9% |
| | 31-45 | 135 | 37.3% |
| | 45-60 | 117 | 32.3% |
| | 60< | 27 | 7.5% |

Source: SPSS result (2023 survey data).

Table 4.1 presents the socio-demographic characteristics of the survey respondents, specifically their age and gender. The table provides the frequency and percentage distribution for each category.

Regarding gender, out of the total respondents, 112 (30.9%) were female, while 250 (69.1%) were male.

In terms of age, the respondents were divided into four categories. The largest age group was 31-45, comprising 135 respondents (37.3%). The second-largest group was 45-60, with 117 respondents (32.3%). The 18-30 age group consisted of 83 respondents (22.9%), and the smallest group was those aged 60 and above, with 27 respondents (7.5%).

These results indicate that the majority of the survey participants were male, and the largest age group was between 31 and 45 years old. It is important to consider these socio-demographic characteristics when interpreting the findings of the study, as they may influence the respondents' perceptions and experiences with MOTI e-government services.

Table 4.2: Socio-Demographic Profile of Survey Respondents (Education Level, Current Position, and Business Nature)

| | | F | % |
|--------------------|---------------------|-----|-------|
| Educational level | Certificate/diploma | 77 | 21.3% |
| | Degree | 148 | 40.9% |
| | Masters | 75 | 20.7% |
| | PHD | 37 | 10.2% |
| | Professor | 25 | 6.9% |
| Current position | Owner | 250 | 69.1% |
| | Representative | 112 | 30.9% |
| Nature of business | Private traders | 166 | 45.9% |
| | P.L.C | 107 | 29.6% |
| | S.C | 89 | 24.6% |

Source: SPSS result (2023 survey data).

Table 4.2 provides an overview of the 362 survey respondents of the socio demographic profile in terms of their educational level, current position, and nature of business. The data was obtained from the survey responses.

According to educational attainment, the respondents had varying degrees of education. The largest group consisted of individuals with a Bachelor's degree, accounting for 148 respondents (40.9% of the total). Following that, 77 respondents (21.3% of the total) had a diploma or certificate, 75 respondents (20.7% of the total) held a Master's degree, 37 respondents (10.2% of the total) had a Ph.D. degree, and 25 respondents (6.9% of the total) were professors. This indicates a diverse educational background among the respondents, with a significant proportion holding a Bachelor's degree.

Regarding current position, the majority of respondents (69.1% of the total) identified themselves as owners, while the remaining 30.9% identified themselves as representatives. This suggests that a significant portion of the respondents are business owners or decision-makers.

In terms of the nature of business, the respondents represented various types of businesses. Among the respondents, 166 (45.9% of the total) were private traders, 107 (29.6% of the total) were from private limited companies (P.L.C.), and 89 (24.6% of the total) were from share companies (S.C.). This indicates a diverse representation of different business types in the sample.

Overall, the findings suggest that the respondents in the sample had diverse educational backgrounds, with a significant portion holding a Bachelor's degree. The majority of respondents identified themselves as business owners, and there was a variety of business types represented, including private traders, private limited companies, and share companies

Table 4.3 Socio-Demographic description of survey of respondent (visiting the website and accessing the website)

| | | Frequency | Percentage (%) |
|--------------------------|--------------------------------------|-----------|----------------|
| Visiting the website for | Commercial Registration | 17 | 4.7 |
| | Commercial registration amendment | 38 | 10.5 |
| | Commercial registration replacement | 25 | 6.9 |
| | Commercial registration cancellation | 20 | 5.5 |
| | New business license | 37 | 10.3 |
| | Business license renewal | 87 | 24.1 |
| | Business license amendment | 57 | 15.7 |
| | Business license replacement | 38 | 10.5 |
| | Business license cancellation | 19 | 5.2 |
| | New trade name | 8 | 2.2 |
| | Trade name amendment | 12 | 3.3 |
| | Trade name replacement | 4 | 1.1 |
| | Trade name cancellation | 0 | 0 |
| Access of e-trade | Daily | 5 | 1.4 |
| | Weekly | 15 | 4.1 |
| | Monthly | 38 | 10.5 |
| | Quarterly | 157 | 43.4 |
| | Yearly | 147 | 40.6 |

Source: SPSS result (2023 survey data).

Table 4.3 provides details on the different services survey respondents accessed on the e-trade website, as well as their frequency of accessing the website. The data is presented in terms of frequency and percentage.

With regard to visiting the website for specific service related to commercial registration, the following percentages of respondents accessed the website for each service: 4.7% for commercial registration, 10.5% for commercial registration amendment, 6.9% for commercial registration replacement, 5.5% for commercial registration cancellation, 10.3% for a new business license, 24.1% for business license renewal, 15.7% for business license amendment, 10.5% for business

license replacement, 5.2% for business license cancellation, 2.2% for a new trade name, 3.3% for trade name amendment, 1.1% for trade name replacement, and 0% for trade name cancellation. The majority of respondents (24.1%) accessed the website for business license renewal, indicating that this service is commonly utilized among the surveyed e-trade customers. The fact that is interesting to note no respondents accessed the website for trade name cancellation.

Regarding the frequency of accessing the e-trade website, the following percentages of respondents reported their access frequency: 1.4% on a daily basis, 4.1% on a weekly basis, 10.5% on a monthly basis, 43.4% on a quarterly basis, and 40.6% on a yearly basis. The majority of respondents (43.4%) accessed the website quarterly, followed by 40.6% who accessed it yearly. This indicates that the majority of e-trade customers in the sample visit the website periodically for their transactions, with a significant portion accessing it on a quarterly or yearly basis.

Overall, the findings suggest that the e-trade customers in the sample primarily accessed the website for services related to business license renewal, amendment, replacement, and commercial registration. The frequency of accessing the website varied, with a substantial proportion accessing it on a quarterly or yearly basis.

4.4 Reliability and validity

Table 4.4: Exploratory Factor Analysis of Measurement Scale Items for Independent Variables

| | Item | Loading | Cronbach alpha value (CR) | Average variance extract | KM O value | Bartlett's Test of Sphericity | |
|-----|------|---------|---------------------------|--------------------------|------------|-------------------------------|------|
| | | | | | | Approx. Chi-Square | Sig. |
| Eff | Eff1 | 0.728 | 0.789 | 0.661 | 0.778 | 1971.459 | .000 |
| | Eff2 | 0.821 | | | | | |
| | Eff3 | 0.703 | | | | | |
| | Eff4 | 0.776 | | | | | |
| Rel | Rel1 | 0.623 | 0.761 | 0.516 | 0.758 | 2210.928 | .000 |
| | Rel2 | 0.715 | | | | | |
| | Rel3 | 0.812 | | | | | |
| | Rel4 | 0.639 | | | | | |
| | Rel5 | 0.594 | | | | | |
| Tru | Tru1 | 0.723 | 0.838 | 0.574 | 0.822 | 1908.851 | .000 |
| | Tru2 | 0.819 | | | | | |
| | Tru3 | 0.729 | | | | | |

| | | | | | | | |
|------|-------|-------|-------|-------|-------|----------|------|
| | Tru4 | 0.699 | | | | | |
| Supp | Supp1 | 0.640 | 0.848 | 0.585 | 0.816 | 2052.359 | .000 |
| | Supp2 | 0.754 | | | | | |
| | Supp3 | 0.559 | | | | | |
| | Supp4 | 0.574 | | | | | |

Source: SPSS result (2023 survey data).

The findings of the exploratory factor analysis performed on the items of the measurement scale for the constructs of efficiency, reliability, trust, and support are shown in Table 4.4. In order to assess the validity and reliability of the measurement scales, a number of statistical values were examined.

Efficiency: The items for efficiency (Efficiency1, Efficiency2, Efficiency3, and Efficiency4) demonstrate factor loadings of 0.728, 0.821, 0.703, and 0.776, respectively. The construct reliability (CR) Cronbach alpha value is 0.789, showing a good level of internal consistency. The average variance extraction is 0.661, showing a satisfactory level of convergent validity. The KMO value of 0.778 reflects a meritorious sampling adequacy. The correlation matrix may be adequate for factor analysis, according to Bartlett's Test of Sphericity, which is significant ($p < 0.001$).

Reliability: The items for reliability (Reliability1, Reliability2, Reliability3, Reliability4, and Reliability5) exhibit factor loadings of 0.623, 0.715, 0.812, 0.639, and 0.594, respectively. The (CR) Cronbach alpha value is 0.761, indicating acceptable internal consistency. A satisfactory level of convergent validity is indicated by the AVE of 0.516. The meritorious sampling adequacy is shown by the KMO value of 0.758. The factorability of the correlation matrix is supported by the Bartlett's Test of Sphericity, which is significant ($p < 0.001$).

Trust: These items for trust (Trust1, Trust2, Trust3, Trust4) exhibit factor loadings of 0.723, 0.819, 0.729, and 0.699, respectively. The Cronbach alpha value (CR) is 0.838, indicating good internal consistency. AVE is 0.574, indicating a satisfactory level of convergent validity. The KMO value of 0.822 reflects meritorious and adequate sampling. The Bartlett's Test of Sphericity is significant ($p < 0.001$), supporting the factorability of the correlation matrices.

Support: The elements for support (Support1, Support2, Support3, Support4) have factor loadings that are, respectively, 0.640, 0.754, 0.559, and 0.574. Good internal consistency is indicated by the Cronbach alpha value (CR), which is 0.848. At an AVE of 0.585, the level of convergent validity is excellent. The 0.816 KMO value indicates a good level of sampling adequacy. The correlation matrix's factorability is tested by the Bartlett's Test of Sphericity, which is significant ($p < 0.001$).

Overall, exploratory factor analysis results indicate that the measurement scale items for the constructs of efficiency, reliability, trust, and support exhibit satisfactory factor loadings and demonstrate good reliability and validity. These results provide support for employing measurement scales in assessing the respective constructs in the study.

Table 4.5: Reliability Analysis Results of the Questionnaire

| Statistics of Reliability | | N |
|---------------------------|-------------------|-----|
| Cronbach's Alpha | N of Items | 362 |
| .989 | 21 | |

Source: SPSS result (2023 survey data).

In Table 4.5, the reliability statistics for the questionnaire are presented. The Cronbach's alpha coefficient reported as 0.989 is an extremely high value, indicating that the questionnaire has very high internal consistency and reliability. A value close to 1.0 suggests that the instrument is highly reliable and that the questionnaire demonstrates good stability and consistency.

Based on the Cronbach's alpha value of 0.989 obtained in this research, it can be inferred that the 21-item questionnaire used to assess customer satisfaction with the e-trade service is highly reliable. This implies that the questionnaire consistently measures the intended construct and produces consistent results.

The high reliability of the questionnaire enhances confidence in the study's findings and supports the use of the questionnaire for further analysis and interpretation of the results.

4.5 Efficiency, Trust, Reliability, and Support: Respondents' Views of E-Government Service Quality Aspects

4.5.1 The Efficiency Perception of Respondents

According to the classification criteria outlined in the study, scores ranging from 1 to 2.339 were considered low, scores ranging from 2.34 to 3.669 were classified as moderate, and scores ranging from 3.67 to 5 were classified as high. The class interval width, determined by the formula (4.1), was calculated to be 1.33.

The formula for calculating the class interval (CI) width is given as $CI\ width = (HSV - LSV) / K$ (Equation 4.1). In this formula, HSV represents the largest scale value, LSV represents the lowest scale value, and K represents the category count.

Applying this formula to the given values, we have $HSV = 5$, $LSV = 1$, and $K = 3$. Therefore, the CI (class interval) Width is calculated as $(5 - 1) / 3 = 4 / 3 = 1.33$.

Based on this calculation, the class intervals are determined as follows:

- Low: 1 - 2.339
- Moderate: 2.34 - 3.669
- High: 3.67 - 5

Table 4.6 shows the respondents' distribution based on how they perceived the efficiency of the e-trade service in general.

| Level | F | % | Mean | SD |
|---------------|-----|------|------|------|
| L (1-2.33) | 14 | 3.9 | 4.28 | 0.77 |
| M (2.34-3.66) | 17 | 4.8 | | |
| H (3.67- 5) | 330 | 91.3 | | |

Source: SPSS result (2023 survey data).

The table shows the respondents' views of the efficiency dimension of e-government service quality, classified into three levels: low, moderate, and high. The frequency and percentage of respondents at each level are provided, along with the mean and standard deviation of their ratings.

According to the information, 14 respondents (3.9%) rated the efficiency dimension as low, indicating a lower perception of efficiency in e-government services. On the other side, a majority of respondents, 330 (91.3%), perceived the efficiency dimension as high, indicating a positive view of efficiency in e-government services and the percentage of respondents at the moderate level is 17(4.8%), indicating a moderate perception of efficiency in e-government service. .

The mean rating for the Efficiency dimension among all respondents was 4.28, indicating a relatively high average perception of efficiency. The standard deviation of 0.77, suggests that the ratings are relatively consistent and close to the mean.

Overall, the findings suggest that the majority of respondents perceive e-government services to be highly efficient, while a smaller proportion have a moderate perception and a minority perceive it as low. These insights provide valuable information about the overall perception of efficiency in e-government services among the respondents in this study.

Table 4.7 shows customer distribution in terms of their overall attitude towards efficiency.

| Customers 'perceptions of the efficiency of e-trade services (n = 362) | S.D % | D % | N % | A% | S.A % | Mean |
|--|-------|-----|-----|------|-------|------|
| The E-trade site provided by MOTI is easy to use | 2.2 | 1.7 | 4.1 | 20.2 | 71.8 | 4.58 |
| The e-trade site map is well organized and easy to follow. | 2.8 | 1.9 | 3.9 | 69.1 | 22.4 | 4.06 |
| The e-trade site is customized to individual users 'need. | 2.8 | 1.1 | 5.5 | 95.9 | 54.7 | 4.39 |
| The e-trade site provided is up to date. | 2.8 | 1.4 | 4.7 | 64.6 | 26.5 | 4.11 |

Source: SPSS result (2023 survey data).

The table shows the customers' views of the efficiency dimension of the e-trade service offered by MOTI. The responses are categorized into five levels: strongly disagree, disagree, neutral, agree, and strongly agree. The frequency percentages for each level are provided, along with the mean rating for each statement.

For the statement "The e-trade site provided by MOTI is easy to use," the majority of customers strongly agree (71.8%) and agree (20.2%) that the site is easy to use. Only a small percentage of customers disagree (1.7%) or strongly disagree (2.2%) with this statement. The high mean rating of 4.58 suggests that customers generally find the e-trade site easy to use.

Regarding the statement "The e-trade site map is well organized and easy to follow," a large percentage of customers agree (69.1%) and strongly agree (22.4%) that the site map is well organized. The mean rating of 4.06 indicates a positive perception of the site's organization and ease of navigation. Only a small percentage of customers disagree (1.9%) or strongly disagree (2.8%) with this statement.

For the statement "The e-trade site is customized to individual users' needs," the majority of customers strongly agree (95.9%) and agree (54.7%) that the site was customized to their needs. The mean rating of 4.39 indicates a high level of satisfaction with the site's customization. Only a small percentage of customers disagree (1.1%) or strongly disagree (2.8%) with this statement.

Regarding the statement "The e-trade site provided is up to date," a significant percentage of customers agree (64.6%) and strongly agree (26.5%) that the site is up to date. The mean rating of 4.11 suggests that customers perceive the site to be regularly updated. A small percentage of customers disagree (1.4%) or strongly disagree (2.8%) with this statement.

Overall, the result suggests that customers have a positive view of the Efficiency dimension of the e-trade service provided by MOTI. They perceived the site as easy to use, well organized, customized to their needs, and up to date. The high agreement levels and positive mean ratings reflect a satisfactory customer experience in terms of the Efficiency dimension.

4.5.2 Respondent's View of Reliability

Table 4.8 shows the distribution of customers' attitudes toward the reliability of the e-trade service. The table includes the percentage of respondents in each category (low, moderate, and high) and the mean score for reliability.

Table 4.8: The distribution of respondents according to their perception of the reliability of e-trade services is shown below.

| Level | F | % | Mean | SD |
|---------------|----------|----------|-------------|-----------|
| L (1-2.33) | 24 | 6.6 | 3.69 | 0.92 |
| M (2.34-3.66) | 152 | 42 | | |
| H (3.67- 5) | 186 | 51.4 | | |

Source: SPSS result (2023 survey data).

Table 4.8 indicates the distribution of respondents based on their perception of the reliability of e-trade services. The respondent was requested to rate the reliability of the services on a scale from 1 to 5, with higher scores indicating higher perceived reliability.

The table indicates that 6.6% of the respondent's had a low perception of reliability, as they rated the services between 1 and 2.33. On the other hand, 51.4% of the respondents had a high perception of reliability, rating the services between 3.67 and 5. The remaining 42% of the respondents had a moderate perception of reliability, falling within the rating range of 2.34 to 3.66.

The score of the mean for the reliability dimension is 3.69, which shows a moderate level of perceived reliability among the respondents. Standard deviation (SD) of 0.92 suggests some variation in the responses, indicating that there are differences in the perception of reliability among the respondents.

Overall, the majority of the respondents had positive perceptions of the reliability of e-trade services, with more than half of them perceiving it as high. This suggests that the e-commerce platform is generally seen as reliable by a significant portion of the respondents. However, it's important to note that a small proportion of respondents stated a low perception of reliability, indicating potential areas for improvement in the service.

Table 4.9: Respondent distribution based on the degree of agreement on e-trade service reliability items

| Customers 'view of the reliability of the e-trade service (n=362) | S.D % | D % | N % | A % | S.A % | Mean |
|--|--------------|------------|------------|------------|--------------|-------------|
| Forms on the e-trade site are downloaded and uploaded in a short time. | 3.0 | 3.6 | 6.1 | 26.8 | 60.5 | 4.38 |
| The e-trade site is available and accessible whenever you need it | 2.2 | 3.3 | 7.2 | 63.3 | 24.0 | 4.04 |
| The e-trade site performs the service successfully upon the first request. | 12.7 | 54.7 | 12.7 | 13.8 | 6.1 | 2.46 |
| The e-trade site provides service on time. | 5.5 | 30.4 | 12.7 | 23.2 | 28.2 | 3.38 |
| The e-trade site works properly with -your default browser. | 1.7 | 3.9 | 6.9 | 44.2 | 43.4 | 4.24 |

Source: SPSS result (2023 survey data)

The table shows the customers' view of the trustworthiness of the e-trade service based on their responses to the survey questions. The respondents had been requested to rate their level of agreement on a scale from 1 to 5, with higher ratings which indicates a higher level of trust.

Forms on the e-trade site are downloaded and uploaded in a short time: The majority of customers (60.5%) strongly agree, while 26.8% agree, and only a small percentage (6.1%) have a neutral view. The mean score of 4.38 indicates a high level of satisfaction with the download and upload speed of forms on the site.

The e-trade site is available and accessible whenever you need it: A significant majority (63.3%) agree, while 24.0% have a neutral view. The mean score of 4.04 suggests that customers generally find the site to be reliably available and accessible.

The e-trade site performs the service successfully upon the first request: This item shows a different pattern compared to the previous ones. A considerable percentage (54.7%) strongly disagrees, while 13.8% agree, and only 6.1% strongly agree. The mean score of 2.46 indicates a low level of satisfaction with the site's ability to successfully provide the service on the first request.

The e-trade site provides service on time: A significant percentage (30.4%) strongly disagrees, while 23.2% agree, and 28.2% strongly agree. The mean score of 3.38 suggests that customers have mixed views regarding the site's ability to provide service on time.

The e-trade site works properly with your default browser: The majority of customers (43.4%) strongly agree, while 44.2% agree. Only a small percentage (6.9%) have a neutral view. The mean score of 4.24 indicates a high level of satisfaction with the compatibility of the site with customers' default browsers.

In summary, customers generally have positive views regarding the download/upload speed of forms, availability/accessibility, and compatibility with their default browsers. However, there are concerns about the site's performance on the first request and its ability to provide service on time. These areas may require further attention and improvement to enhance customer reliability in the e-trade service.

4.5.2 Respondents' perspectives on trust

Table 4.10 gives an overview of the distribution of customer responses regarding their view of trust in the e-trade service. The table includes the percentage of respondents in each category (low, moderate, or high) and the mean score for the trust dimension.

Table 4.10: Respondent distribution in terms of trust in e-trade services.

| Level | F | % | Mean | SD |
|---------------|----------|----------|-------------|-----------|
| L (1-2.33) | 12 | 3.3 | 4.35 | 0.73 |
| M (2.34-3.66) | 24 | 6.6 | | |
| H (3.67- 5) | 326 | 90.1 | | |

Source: SPSS result (2023 survey data).

The tables show the distribution of respondents based on their level of trust in e-trade services. It indicates that 90.1% of respondents expressed a high level of trust in the services, while 6.6% had a moderate level of trust. Only 3.3% of respondents had a low level of trust in e-trade services. The mean trust score of 4.35 suggests an overall positive perception of trust between the respondents. The relatively low standard deviation of 0.73 indicates that the responses are clustered around the mean, indicating a consistent level of trust among the majority of respondents. These findings suggest that the e-trade services have successfully instilled a high level of trust among the customers surveyed.

Table 4.11: Respondent distribution based on level of agreement with questions related to the Trust of the e-trade Service

| Respondent's view of the trust of the e-trade service (n=362) | S.D % | D % | N % | A % | S.A % | Mean |
|--|--------------|------------|------------|------------|--------------|-------------|
| Acquisition of user name and password for e-trade site is secure, | 1.1 | 2.2 | 3.9 | 23.8 | 69.1 | 4.57 |
| Only the necessary data are provided for authentication on the e-trade site | 1.7 | 1.9 | 5.2 | 71.0 | 20.2 | 4.06 |
| Data provided by users on the e-trade site are archived securely | 1.4 | 1.7 | 6.9 | 38.1 | 51.9 | 4.38 |
| Data provided by users on the e-trade site are used only for the reason submitted. | 1.4 | 2.2 | 6.4 | 33.7 | 56.4 | 4.41 |

Source: SPSS result (2023 survey data).

According to Table 4.11, customers' responses regarding their trust in the e-trade service are presented. The table includes the percentage of respondents in each category (strongly disagree, disagree, neutral, agree, strongly agree) and the mean score for each trust item.

The outcomes show that customers have a positive perception of trust in various aspects of the e-trade service. All trust-related items scored above the mean average, suggesting that customers generally have a favourable view of trust in the service. Among these items, the highest mean score of 4.57 was obtained by the item concerning the secure acquisition of a username and password for the e-trade site. This indicates that customers highly trust the security measures implemented to protect their username and password information. Overall, the results suggest that trust is perceived as a significant factor in e-trade services and that customers have confidence in the security measures in place.

The remaining trust items, such as providing only necessary data for authentication (item 2), securely archiving user-provided data (item 3), and using user-provided data only for the intended purpose (item 4), also received favourable mean scores (that range from 4.06 to 4.41). This suggests which customers trust e-trade services in terms of data protection, authentication, and appropriate use of their information.

Overall, the findings demonstrate that customers perceive a higher level of trust in e-trade services, particularly in terms of the secure acquisition of usernames and passwords. This indicates that customers have confidence in the security measures implemented by the e-trade platform and trust that their data is handled appropriately. It is essential for e-trade platforms to prioritize the protection of customer information to maintain their trust and loyalty. Without proper security measures, e-trade platforms run the risk of losing their customer base and damaging their reputation.

4.5.4 Respondents' Perceptions of Support

Table 4.12 gives a summary of the distribution of respondents' views on the support aspect of the e-trade service. The table includes the frequency and percentages of respondents at each level (low, moderate, or high) and the mean score for support

Table 4.12: Respondent distribution in terms of support for e-trade services.

| Level | F | % | Mean | SD |
|---------------|----------|----------|-------------|-----------|
| L (1-2.33) | 39 | 10.8 | 3.89 | 0.96 |
| M (2.34-3.66) | 49 | 13.5 | | |
| H (3.67- 5) | 274 | 75.7 | | |

Source: SPSS result (2023 survey data)

According to the findings, the vast majority of customers in the sample (75.7%) perceived support for the e-trade service as high. This suggests that customers generally felt satisfied with the level of support provided. Additionally, 13.5% of respondents perceived support as moderate, while 10.8% perceived it as low. These results indicate areas where the e-trade service could improve to increase customer satisfaction.

The mean score in support is 3.89, indicating that, on average, customers perceived the support aspect of the e-trade service as high. This suggests that customers found the support provided to be helpful and satisfactory. Additionally, this positive perception of support may lead to increased customer loyalty and retention.

It is essential to notice that a higher percentage of customers rated support as high compared to those who rated it as moderate or low. This indicates that the majority of customers had positive experiences with the support provided by the e-trade service. This is a positive sign for the e-trade service and should be highlighted in their marketing efforts.

Overall, the findings demonstrate that customers generally perceived the support aspect of the e-trade service as high, indicating that they felt supported and satisfied with the support they

received. This high level of support is likely to contribute to customer loyalty and the success of the company. Additionally, customers reported that they appreciated the convenience and ease of use of the e-trade service. Generally, the positive feedback from customers suggests that the company's investment in customer support and technology has been a wise decision.

Table 4.13 shows the percentage distributions of customers by the level of agreement in four support assertions.

| Customers 'perceptions of support for the e-trade service (n = 362) | S.D % | D % | N % | A % | S.A % | Mean |
|--|--------------|------------|------------|------------|--------------|-------------|
| Employees (MOTI) showed a sincere interest in solving users 'problems. | 3.0 | 11.3 | 9.9 | 24.0 | 51.7 | 4.10 |
| Employees give prompt replies to users 'inquiries. | 3.3 | 11.9 | 14.1 | 61.6 | 9.1 | 3.61 |
| Employees have the knowledge to answer users 'inquiries. | 2.8 | 8.0 | 12.2 | 40.1 | 37.0 | 4.01 |
| Employees have the ability to convey trust and confidence. | 2.2 | 7.2 | 11.9 | 58.3 | 20.4 | 3.88 |

Source: SPSS result (2023 survey data).

Table 4.13 indicates a percentage distribution of the customers by the degree agreement on four support assertions linked to the e-trade service's support aspect. The table shows the percentages of customers that strongly disagree, disagree, are neutral, agree, or strongly agree with each statement, as well as the mean ratings for each.

Based on the results, the following conclusions were drawn:

Employees (MOTI) showed a sincere interest in solving users' problems (item 1) scored above the mean average with a mean score of 4.10. Over half of the respondents (51.7%) strongly agreed with this assertion, indicating that they ought to feel the employees showed genuine concern in resolving their issues. This suggests that the company has a positive image for addressing and resolving customer problems. This can be a valuable asset for attracting and retaining customers in the future. Additionally, it can also improve employee morale and job satisfaction.

Employees give prompt replies to users' inquiries (item 2) received a mean score of 3.61. The majority of those who responded (61.6%) agreed with that assertion, suggesting that they felt the employees responded promptly to their inquiries.

Employees have the knowledge to answer users' inquiries (item 3) obtained a mean score of 4.01. A significant percentage of respondents (40.1%) agreed, and an additional 37.0% strongly agreed that the employees possessed the necessary knowledge to address their inquiries. This indicates that customers perceived the employees as knowledgeable and capable of providing accurate information.

Employees have the ability to convey trust and confidence (item 4) achieved a mean score of 3.88. A considerable proportion of respondents (58.3%) agreed, and 20.4% strongly agreed, that the employees were able to convey trust and confidence. This implies that customers felt assured and confident in the employees' abilities. In general, the high mean score and agreement from respondents indicate that the employees were successful in building trust with customers.

In summary, the findings reveal that items 1 and 3, related to the support component of the e-trade services, scored higher than the mean average. This suggests that customers perceived the employees to be genuinely interested in solving problems and possessing the necessary knowledge. Additionally, items 2 and 4 received relatively high mean scores, indicating that customers agreed that employees provided prompt replies and conveyed trust and confidence.

Overall, the findings indicate that customers had positive perceptions of the support provided by the e-trade service, with employees demonstrating sincere interest, promptness, knowledge, and skill to build trust and confidence. This suggests that the e-trade service is successful in building customer loyalty and satisfaction.

4.6 Customer satisfaction statistical analysis

The outcomes of the statistical analysis on customer overall satisfaction with the e-trade service provided by MOTI are presented in Table 4.14.

Table 4.14 provides a breakdown of the respondents' overall satisfaction with the e-trade service provided by MOTI. The table includes the frequency, percentage, mean, and standard deviation of customer satisfaction levels.

Table 4.14 demonstrates the distribution of respondents' overall satisfaction with e-trade.

| Level | F | % | Mean | SD |
|---------------|----------|----------|-------------|-----------|
| L (1-2.33) | 26 | 7.2 | 4.07 | 0.97 |
| M (2.34-3.66) | 52 | 14.4 | | |
| H (3.67- 5) | 284 | 78.4 | | |

Source: SPSS result (2023 survey data).

According to the table, 7.2% of the respondents reported a low level of satisfaction (scores ranging from 1 to 2.33) with the e-trade services. In contrast, 14.4% of the respondents indicated a moderate level of satisfaction (scores ranging from 2.34 to 3.66). The majority of those who responded, 78.4%, reported high levels of satisfaction (scores ranging from 3.67 to 5) with the e-trade service.

The mean satisfaction score was calculated to be 4.07 with a standard deviation of 0.97. This suggests that, on average, customers were moderately to highly satisfy with the e-trade service provided by MOTI.

These findings suggest that the majority of customers had a positive perception of the e-trade service, indicating that MOTI has been successful in meeting customer expectations to a

significant extent. However, there is still room for improvement to address the needs of customers who reported lower satisfaction levels.

It is important for MOTI to focus on addressing the concerns of the small proportion of customers who expressed low satisfaction levels. This can be achieved through continuous monitoring of customer feedback, identifying areas of improvement, and implementing strategies to enhance the e-trade service quality and overall customer satisfaction.

Additionally, MOTI should strive to maintain and improve the high satisfaction levels reported by the majority of customers. This can be accomplished by consistently offering superior e-trade services, addressing customer queries and concerns promptly, and providing excellent customer support.

Overall, the findings highlight the importance of continuously assessing and improving the e-trade service provided by MOTI to ensure a high level of customer satisfaction and fulfil the evolving requirements of customers in the digital era.

Table 4.15 demonstrates the percentage distribution among customers according to their level of agreement with four assertions about overall satisfaction.

| Customers' overall satisfaction with e-trade service (n = 362) | S.D % | D % | N % | A % | S.A % | Mean |
|---|--------------|------------|------------|------------|--------------|-------------|
| I am satisfied with the efficiency of e-trade | 3.0 | 4.1 | 11.0 | 30.4 | 51.4 | 4.23 |
| I am satisfied with the reliability of e-trade | 2.5 | 4.4 | 14.6 | 43.1 | 35.4 | 4.04 |
| I am satisfied with the trust of e-trade | 2.2 | 6.6 | 10.8 | 13.3 | 67.1 | 4.36 |
| I am satisfied with the support of e-trade. | 5.8 | 8.6 | 16.6 | 55.2 | 13.8 | 3.63 |

Source: SPSS result (2023 survey data).

Based on the information provided in Table 4.15, which demonstrates the percentage distribution for customers' agreement levels regarding overall satisfaction with the e-trade service, the following conclusions can be drawn:

Trust of e-trade (item 3) received the highest mean score of 4.36, indicating that customers highly value and are satisfied with the trustworthiness of the e-trade service. This suggests that customers feel confident and secure in their transactions and interactions with the service.

Efficiency of e-trade (item 1) was also highly valued, with a mean rating of 4.23. This suggests that customers have been satisfied with the efficiency and effectiveness of the e-trade service in meeting their needs and expectations.

Reliability of e-trade (item 2) received a mean rating of 4.04, suggesting customers find the service to be reliable, although slightly lower than trust and efficiency. This implies that customers perceive the e-trade service as consistent and dependable in delivering its promised features and functionality.

Support for e-trade (item 4) received the lowest mean rating of 3.63, suggesting customers are relatively less satisfied with the support provided by the service. This indicates that there's room for improvement in addressing customer requests and concerns and providing assistance when needed.

In summary, trust and efficiency are the most highly valued aspects of the e-trade service, as indicated by their higher mean scores. Reliability is also perceived positively by customers, although slightly lower. The area that requires more attention and improvement is the support provided to customers. Enhancing the support system could contribute to increasing overall customer satisfaction with the e-trade service.

4.7 Summary of the descriptive statistical analysis

Table 4.16: Summary of descriptive data

| Descriptive data | | | |
|-------------------------|-------------------------|-------------|-----------|
| | Total population | Mean | SD |
| EFF | 362 | 4.28 | .765 |
| REL | 362 | 3.69 | .919 |
| TRU | 362 | 4.35 | .725 |
| SUPP | 362 | 3.89 | .961 |
| OVERALL SATSFACTION | 362 | 4.06 | .966 |

Source: SPSS result (2023 survey data).

According to the descriptive data presented in Table 4.16, the following summary can be made:

Trust has the highest mean score of 4.35 and the lowest SD of 0.725, indicating that customers perceive trust as the most dominant and consistent aspect of the e-trade service. Customers have higher levels of confidence and faith regarding the trustworthiness of the service.

Efficiency had a mean score of 4.28 and an SD of 0.765. This indicates that customers consider the e-trade service to be efficient and effective in meeting their needs. However, there is slightly more variability in customers' perceptions of efficiency compared to trust.

Support has a mean score of 3.89 and an SD of 0.961. This suggests that customers have a moderate degree of satisfaction regarding the support provided by the e-trade service. There's relatively more variability in customers' perceptions of support compared to trust and efficiency.

Reliability has a mean score of 3.69 and an SD of 0.919. It indicates that customers perceive the e-trade service to have a moderate level of reliability. There is some variability in customers'

perceptions of reliability, indicating that some customers may have experienced inconsistencies in the service.

Overall satisfaction has a mean score of 4.06 and an SD of 0.966. This indicates that, on average, customers are highly satisfied with their e-trade services. However, there's some variability in customers' overall satisfaction levels, suggesting that some customers may have different levels of satisfaction.

In summary, customers perceive trust as the most dominant aspect of the e-trade service, followed by efficiency, support, and reliability. Overall, customers have a high degree of satisfaction with the e-trade service, but there is some variability in their perceptions across different dimensions.

4.8 Hypothesis testing

To investigate the research hypothesis that the e-government service quality of e-trade has a direct impact on customer satisfaction, as well as the specific hypotheses related to each dimension, the researcher conducted Pearson correlation analysis and regression analysis. The specific hypotheses are as follows

H1: E-government service quality of e-trade directly influences customer satisfaction.

H1a: Efficiency has a positive effect on customer satisfaction.

H1b: Reliability has a positive effect on customer satisfaction.

H1c: Trust has a positive effect on customer satisfaction.

H1d: Support has a positive effect on customer satisfaction.

The Pearson correlation analysis was likely employed to examine the relationships among the four dimensions of the quality of e-government services (efficiency, reliability, trust, and support) and overall customer satisfaction. This analysis determines how strong the connections are and in what direction.

The above regression analysis was likely conducted to assess the impact of the four dimensions of e-government service quality on customer satisfaction. It helps determine the degree to which each dimension impacts customer satisfaction and whether the relationships are statistically significant.

By conducting these tests, the researcher aims to investigate whether the e-government service quality dimensions have had a significant impact on customer satisfaction and whether specific hypotheses can be supported by the data.

4.8.1 Pearson's Correlation Analysis

The objective of conducting Pearson's correlation analysis was to investigate the relationships among the dimensions of e-government service quality (efficiency, reliability, trust, and support) and customer satisfaction. The correlation coefficients (r) presented in Table 4.17 provide insights into the power and guidance of these relationships.

Table 4.17 demonstrates the correlation coefficients between perceived level of customer satisfaction and the independent variables.

| Correlations | | | | | |
|-----------------------------|---------------|---------------|---------------|---------------|-----------------------------|
| | EFF | REL | TRU | SUPP | Overall satisfaction |
| EFF | 1 | | | | |
| REL | .913** | 1 | | | |
| TRU | .970** | .926** | 1 | | |
| SUPP | .904** | .939** | .928** | 1 | |
| Overall satisfaction | .918** | .934** | .944** | .984** | 1 |

** . Correlation is significant at the 0.01 level (2-tailed). N =362

Source: SPSS result (2023 survey data).

Among the dimensions, support has the strongest correlation with customer satisfaction ($r = 0.984$), followed by reliability ($r = 0.944$), trust ($r = 0.934$), and efficiency ($r = 0.918$). These high correlation coefficients indicate that enhancing the quality of e-government services with regard to these dimensions is likely to result in increased customer satisfaction.

The correlations between the variables are within an acceptable range, indicating the absence of collinearity issues and confirming the distinctiveness of the constructs. This demonstrates the reliability and validity of the assessment scales utilized during the research.

The significant and positive correlations, along with the direction of the relationships, provide support for the study hypothesis (H1) that e-government service quality impacts customer satisfaction. Moreover, the specific hypotheses (H1a, H1b, H1c, and H1d) regarding the positive effects of efficiency, reliability, trust, and support on customer satisfaction are also upheld.

To summarize, the findings from the Pearson correlation analysis confirm that the dimensions of e-government service quality have a strong positive impact on customer satisfaction. Enhancing efficiency, reliability, trust, and support in the e-trade service provided by MOTI is likely to lead to higher levels of customer satisfaction.

4.5 Multiple linier regression

Multiple regression analysis is used to discover the relationship between one dependent variable and a number of independent variables or predictors (Pallant, 2005). Multiple regression also tells how much of the variance in the dependent variable can be explained by independent variables.

In this context, the researcher performed a regression analysis to examine the relationship between a dependent variable and multiple independent variables. The goal was to determine the extent to which the combination of independent variables could explain the variability in the dependent

variable. However, before conducting the regression analysis, the researcher conducted several tests to assess whether the critical assumptions of linearity, normality, and homoscedasticity were met. Unfortunately, the specific results of these tests were not provided, making it difficult to ascertain whether the assumptions were satisfied. Nonetheless, it is emphasized that fulfilling these assumptions is crucial to ensure the reliability and validity of the regression analysis, as inferences and generalizations can only be considered valid when the assumptions have been adequately tested and fulfilled.

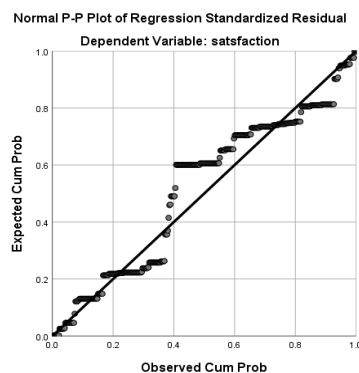
4.5.1 Assumption test

4.5.1.1 Linearity assumption

Linearity refers to the assumption that the relationship between the independent variable and the dependent variable is linear. In other words, the dependent variable can be accurately predicted as a linear function of the independent variable. To assess linearity, scatterplots were generated in SPSS to visually examine the relationship between the independent variable and the dependent variable.

The scatterplot analysis revealed that the relationship between the independent variable and the dependent variable followed a linear pattern. The data points were distributed closely along or near a diagonal line, indicating a linear relationship between the variables. This suggests that the assumption of linearity is satisfied in the dataset.

Figure 2 linearity test



Source: SPSS result (2023 survey data).

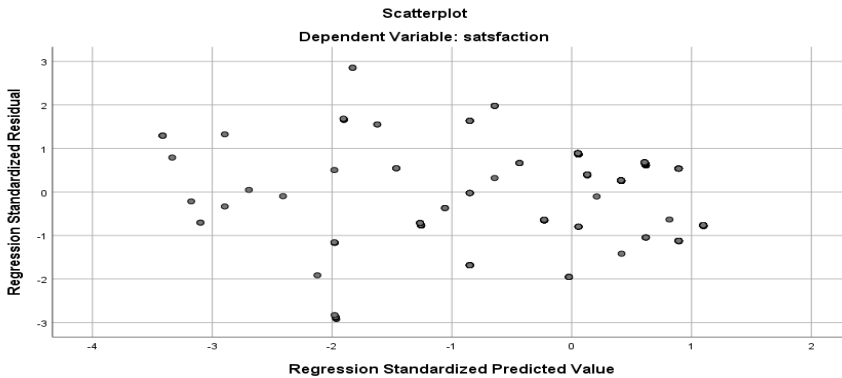
4.5.1.2 Homoscedastic test

Homoscedasticity refers to the assumption that the variance of errors or residuals is constant across all levels of the independent variables in a statistical model. It implies that the spread of errors around the regression line is the same for all values of the predictor variables. If the variance of errors varies systematically with the predictor variables, it indicates homoscedasticity.

The researcher utilized SPSS to generate scatterplots that visually represented the relationship between the predictor variables and the residuals, aiming to examine homoscedasticity. In instances of homoscedasticity, the scatterplot typically displays an even distribution of points, often resembling a fan or butterfly shape, suggesting that the variability of errors remains constant

throughout the data. In this research, the scatterplot depicted in Figure 4 demonstrates that the standardized residuals are uniformly distributed, indicating no violation of homoscedasticity.

Figure 4 Scatterplot of standardized residual



Source: SPSS result (2023 survey data).

The scatterplot output above shows that the data points are scattered and do not exhibit a discernible pattern, indicating the absence of a homoscedasticity issue in the regression model.

4.5.1.3 Auto correlation (Durbin Watson test)

Autocorrelation, also known as independence of errors, refers to the assumption that errors or residuals in a statistical model are independent of each other. This assumption implies that the responses or observations being analyzed are not influenced by the previous or future errors. To test for autocorrelation, the Durbin-Watson statistic is commonly used.

The Durbin-Watson statistic measures the degree of correlation between adjacent residuals and ranges from 0 to 4. A value close to 2 indicates that the residuals are independent and satisfies the assumption of autocorrelation. Values below 1 or above 3 indicate the presence of autocorrelation, which is a concern for the reliability of the statistical model.

Table 4.18 Durbin Watson statistics table

| Model Summary | | | | | |
|--|-------------------|----------|-------------------|----------------------------|---------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
| 1 | .988 ^a | .976 | .976 | .15068 | 1.68 |
| a. Predictors: (Constant), support, efficiency, reliability, trust | | | | | |
| b. Dependent Variable: satisfaction | | | | | |

Source: SPSS result (2023 survey data).

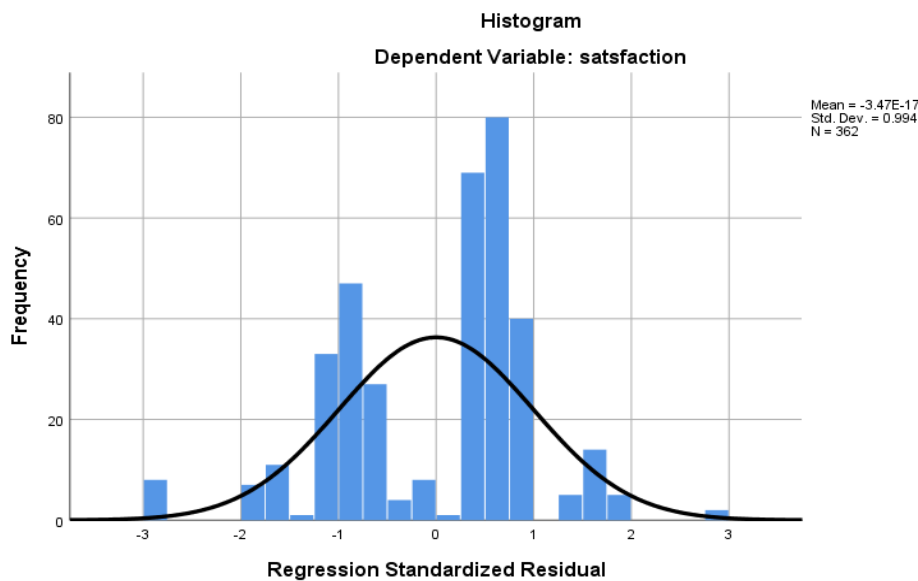
The Durbin-Watson statistic of 1.68 indicates that errors or residuals in the statistical model are responding independently, suggesting that autocorrelation is not a concern. Therefore, the assumption of autocorrelation has been met, indicating that the errors in the model are not correlated with each other.

4.5.1.4 Normality assumption test

Normality refers to a symmetric, bell-shaped distribution of data, and the normality test determines whether the error term in a statistical model follows a normal distribution. Meeting the assumption of normality is important for ensuring the reliability and validity of statistical analyses and inferences.

Frequency distributions can take various forms, so it is crucial to understand common types of distributions. In an ideal scenario, data would exhibit a symmetrical distribution around the center of all scores. This means that if a vertical line is drawn through the center, both sides of the distribution would look the same. This symmetrical distribution is referred to as a normal distribution, which is characterized by a bell-shaped curve. A normal distribution indicates that the majority of scores are concentrated around the center of the distribution. According to Field (2006), the normal distribution graph, displayed in Figure 3, demonstrated that the assumption of normality has been met.

Figure 3 Normality test



Source: SPSS result (2023 survey data).

Model summary analysis

Analysing the model summary provides essential information regarding the adequacy of the regression model in fitting the data and understanding the relationship between the independent variables (service quality dimensions) and the dependent variable (customer satisfaction).

Table 4.19 Model Summary

| Model summary | | | | | | | | | |
|--|-------------------|----------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|
| Model | R | R square | Adjusted R square | Std. Error of the Estimate | Change statistics | | | | |
| | | | | | R square change | F change | Df1 | Df2 | Sig. F Change |
| 1 | .987 ^a | .975 | .975 | .15068 | .976 | 3532.84 | 4 | 360 | .000 |
| a. Predictors: (Constant), support, efficiency, reliability, trust | | | | | | | | | |

Source: SPSS result (2023 survey data).

In Table 4.19, the model summary section displays several key statistics:

R: The multiple correlation coefficient (R) represents the strength and direction of the relationship between the independent variables and the dependent variable. In this case, the value of R is 0.987, indicating a strong positive correlation.

R Square: The coefficient of determination (R Square) represents the proportion of variance in the dependent variable that can be explained by the independent variables. In this model, the R Square value is 0.975, which means that the service quality dimensions (independent variables) account for approximately 97.5% of the variation in customer satisfaction (dependent variable).

Adjusted R Square: The adjusted R Square takes into account the number of predictors and the sample size to provide a more accurate estimate of the model's goodness of fit. In this case, the adjusted R Square is also 0.975, indicating that the model's explanatory power remains consistent after adjusting for the number of predictors.

Std. Error of the Estimate: The standard error of the estimate measures the average distance between the observed values and the predicted values by the regression model. In this model, the standard error of the estimate is 0.15068, suggesting that, on average, the actual data points deviate by approximately 15.1% from the regression line.

Furthermore, the change statistics section provides additional information:

R square change: The value that indicates the change in R square when the independent variables are added to the model. In this instance, the R square change is 0.976, indicating a substantial increase in the model's ability to explain items after including the service quality dimensions.

F change: The F change statistic assesses the overall significance of the regression model. For this analysis, the F change value is 3532.84, and the associated p-value is 0.000 (significant at the 1% level). This indicates that the model as a whole is a good fit, and the relationship between the service quality dimensions and customer satisfaction is statistically significant.

Overall, the model summary analysis indicates that the regression model, including the service quality dimensions as predictors, is fairly accurate in predicting customer satisfaction. The model explains a significant proportion of the variance in customer satisfaction, and the relationships between the independent variables and the dependent variable are statistically significant. The standard error of estimation suggests the actual points of data are relatively near the regression line, indicating a good fit. The coefficients of the variables can be utilized to assess the impact of each independent variable on customer satisfaction while considering other variables in the model.

ANOVA table analysis

The ANOVA table provides valuable information for analyzing the significance of a regression model and its individual predictors. Here is an overview of the analysis conducted using the ANOVA table:

Table 4.20 ANOVAa table analysis

| Model | | Sum of square | DF | Mean square | F | Sig. |
|--|------------|---------------|-----|-------------|---------|-------------------|
| 1 | Regression | 320.04 | 4 | 80.01 | 3532.84 | .000 ^b |
| | Residual | 8.06 | 356 | .022 | | |
| | Total | 328 | 360 | | | |
| a. Dependent Variable: customer satisfaction | | | | | | |
| b. Predictors: (Constant), efficiency, reliability, trust, support | | | | | | |

Source: SPSS result (2023 survey data).

In Table 4.20, the ANOVA results are as follows:

Regression: The sum of squares for regression is 320.04, indicating the amount of variance in customer satisfaction that is explained by the model. The degrees of freedom (DF) for regression are 4, corresponding to the number of predictors in the model. The mean square is 80.01.

Residual: The sum of squares for residuals (unexplained variance) is 8.06, representing the amount of variation in customer satisfaction that is not accounted for by the model. The degrees of freedom for residuals are 356, which is calculated as the total degrees of freedom minus the degrees of freedom for regression. The mean square for residuals is 0.022.

Total: The total sum of squares is 328, which is the sum of the squares for regression and the sum of squares for residuals.

The F statistic is 3532.84, indicating a large ratio between the mean square of regression and the mean square of residuals. The associated p-value is 0.000, which is less than the significance level of 0.01. Therefore, the regression model as a whole is statistically significant, indicating that the factors (efficiency, reliability, trust, and support) have a significant impact on customer satisfaction.

Based on these results, it can be concluded that efficiency, reliability, trust, and support significantly influence customer satisfaction. The positive relationship between the variables is supported by the larger sum of squares for regression compared to the sum of squares for residuals.

Regression model

$$Y = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_4 + \varepsilon$$

$$\text{Customer satisfaction} = -314 + 0.389(\text{Efficiency}) + 0.579(\text{reliability}) + 0.222(\text{trust}) + 0.777(\text{Support}) + \varepsilon (\text{error})$$

Table 4.21 Regression Summary of E-government service quality to Customer Satisfaction (N=362)

| Model | | Unstandardized coefficient | | Standardized coefficient | T | Sig |
|-------|------------|----------------------------|---------|--------------------------|--------|------|
| | | B | Std.err | Beta | | |
| 1 | (constant) | -0.315 | 0.104 | | -3.017 | .000 |
| | EFF | 0.497 | 0.053 | 0.389 | 9.420 | .000 |
| | REL | 0.608 | 0.043 | 0.579 | 14.02 | .000 |
| | TRU | 0.301 | 0.030 | 0.222 | 5.376 | .000 |
| | SUPP | 0.781 | 0.022 | 0.777 | 18.81 | .000 |

Dependent Variable: overall customer satisfaction

The regression model presented in Table 4.21 provides the coefficients (β) and their corresponding t-values and significance levels for each independent variable (efficiency, reliability, trust, support) in relation to the dependent variable (customer satisfaction). Here's the analysis of the regression results:

- ❖ Constant (β_0): The constant term represents the estimated value of customer satisfaction when all independent variables (efficiency, reliability, trust, support) are zero. In this case, the estimated value is -0.315. The standard error (Std. error) associated with the constant is 0.104. The t-value of -3.017 indicates the significance of the constant, and the p-value of 0.000 confirms that it is statistically significant.
- ❖ Efficiency: The coefficient (β_1) for efficiency is 0.497. It indicates that a one-unit increase in efficiency is associated with a 0.497 unit increase in customer satisfaction. The standard error of 0.053 shows the precision of the estimate. The t-value of 9.420 is highly significant (p-value = 0.000), indicating that efficiency has a significant positive impact on customer satisfaction.
- ❖ Reliability: The coefficient (β_2) for reliability is 0.608. It suggests that a one-unit increase in reliability corresponds to a 0.608 unit increase in customer satisfaction. The standard error of 0.043 reflects the precision of the estimate. The t-value of 14.02 is highly significant (p-value = 0.000), indicating that reliability has a significant positive impact on customer satisfaction.
- ❖ Trust: The coefficient (β_3) for trust is 0.301. It implies that a one-unit increase in trust is associated with a 0.301 unit increase in customer satisfaction. The standard error of 0.030 represents the precision of the estimate. The t-value of 5.376 is highly significant (p-value = 0.000), indicating that trust has a significant positive impact on customer satisfaction.
- ❖ Support: The coefficient (β_4) for support is 0.781. It indicates that a one-unit increase in support corresponds to a 0.781 unit increase in customer satisfaction. The standard error of 0.022 reflects the precision of the estimate. The t-value of 18.81 is highly significant (p-value = 0.000), indicating that support has a significant positive impact on customer satisfaction.

Overall, the coefficients show the magnitude and direction of the relationship between each independent variable and customer satisfaction. The standardized coefficients (Beta) provide a standardized measure of the impact of each variable, allowing for comparison of their relative influences. The t-values assess the statistical significance of each coefficient, and the p-values indicate the probability of observing such results by chance.

In summary, the results indicate that efficiency, reliability, trust, and support all have significant positive effects on customer satisfaction. Support has the largest impact, followed by reliability, efficiency, and trust, as evidenced by their respective standardized coefficients and significance levels.

4.22 Collinearity Statistics

| | Tolerance | VIF |
|------|------------------|------------|
| EFF | 0.330 | 3.030 |
| REL | 0.396 | 2.525 |
| TRU | 0.286 | 3.496 |
| SUPP | 0.522 | 1.915 |

Dependent variable: Customer Satisfaction

Based on the collinearity statistics provided in the table, the independent variables (efficiency, reliability, trust, and support) exhibit some degree of correlation, which is known as multicollinearity. However, the levels of multicollinearity are within acceptable limits.

The tolerance values range from 0.286 to 0.522, indicating that between 28.6% and 52.2% of the variability of each predictor variable is not explained by the other predictor variables in the model. These values suggest that there is sufficient independence among the independent variables.

The VIF values range from 1.915 to 3.496, which are below the threshold of 10. VIF values above 10 would indicate a more severe multicollinearity problem. Therefore, based on the provided VIF values, the multicollinearity is not considered severe.

Overall, although there is some degree of multicollinearity among the independent variables, the levels are within acceptable limits. This implies that the regression estimates can still be reasonably precise and evaluated individually. It is important to be aware of the presence of multicollinearity and consider its potential impact on the interpretation of the results

4.9 Discussion

The findings of the study indicate that customers of MOTI are highly satisfied with the trust and security provided by the e-government service. This is supported by the highest mean score (M=4.35) for the trust dimension, indicating that customers perceive their privacy and information security to be well-protected. The implementation of secure login and password systems, as well as guarantees on privacy, contribute to this satisfaction.

Efficiency is another significant factor that influences customer satisfaction, with a high mean score (M=4.28). The MOTI website is found to be user-friendly and customizable, allowing customers to easily navigate and tailor their experience according to their individual needs. This convenience and ease of use contribute to higher levels of satisfaction.

Reliability (M=3.89) and support (M=3.69) dimensions received moderate mean scores, indicating that customers have positive but not extremely high satisfaction levels in these areas. Customers

appreciate the speed of uploading and downloading forms, as well as the successful performance of services on the first request. The MOTI staff also received positive feedback regarding their knowledge and ability to instil trust and confidence in customers.

Overall, customers express moderate satisfaction with MOTI's online services provided through e-trade. The study concludes that the quality aspects of e-government services, including efficiency, reliability, trust, and support, significantly influence customer satisfaction. These findings are consistent with previous research conducted in different industries and countries, supporting the notion that quality aspects play a crucial role in customer satisfaction.

References to earlier studies by Chang, Wang, Yang (2009), Hassan (2006), and Kayabsi and Buyukarslan (2013) further support the existing body of knowledge on the impact of e-government service quality on customer satisfaction

To test the hypotheses associated with the regression model, we can examine the t-values and p-values for each coefficient. Here are the hypotheses and their corresponding results:

Hypothesis H1a: Efficiency has a significant impact on customer satisfaction.

- Unstandardized coefficient (B) = 0.497
- Standardized coefficient (Beta) = 0.389
- t-value = 9.420
- p-value = 0.000 (Significant at the 0.01 level)

Since the p-value is less than 0.01, we reject the null hypothesis and conclude that efficiency has a significant impact on customer satisfaction.

Hypothesis H1b: Reliability has a significant impact on customer satisfaction.

- Unstandardized coefficient (B) = 0.608
- Standardized coefficient (Beta) = 0.579
- t-value = 14.02
- p-value = 0.000 (Significant at the 0.01 level)

Based on the p-value being less than 0.01, we reject the null hypothesis and conclude that reliability has a significant impact on customer satisfaction.

Hypothesis H1c: Trust has a significant impact on customer satisfaction.

- Unstandardized coefficient (B) = 0.301
- Standardized coefficient (Beta) = 0.222
- t-value = 5.376
- p-value = 0.000 (Significant at the 0.01 level)

Since the p-value is less than 0.01, we reject the null hypothesis and conclude that trust has a significant impact on customer satisfaction.

Hypothesis H1d: Support has a significant impact on customer satisfaction.

- Unstandardized coefficient (B) = 0.781
- Standardized coefficient (Beta) = 0.777
- t-value = 18.81
- p-value = 0.000 (Significant at the 0.01 level)

Based on the p-value being less than 0.01, we reject the null hypothesis and conclude that support has a significant impact on customer satisfaction.

Based on these results, we can reject the null hypothesis for all the variables (efficiency, reliability, trust and support). There is sufficient evidence to support the alternative hypothesis that each of these variables has a significant impact on the dependent variable in the model.

CHAPTER SUMMARY

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary

This chapter provides a comprehensive analysis of the study's data findings, conclusions, and recommendations. The primary aim of the research was to investigate the impact of e-government service quality on customer satisfaction specifically at MOTI's Yeka site. The data for the study was collected using a self-administered structured questionnaire through the online Google Forms platform. To ensure the quality of the data, the validity and reliability of the questionnaire instruments were evaluated

To determine the sample size, the Taro Yemane sample size table was utilized, which is suitable for known populations. The respondents for the study were selected using a systematic random sampling process. In this study, 400 surveys were distributed to customers of an e-trade site, resulting in a high response rate of 90.5%. The questionnaires were returned and analysed using SPSS V26, a statistical software, ensuring comprehensive data analysis.

The study concentrated on evaluating the quality of e-government services at MOTI's Yeka site, focusing on four dimensions: Efficiency, Trust, Reliability, and Support. To gauge customer satisfaction, respondents were asked to rate their level of satisfaction using a five-point Likert scale. Analysis of the gathered data revealed that these dimensions of e-government service quality had a significant impact on customer satisfaction. Specifically, Efficiency, Trust, Reliability, and Support emerged as key factors in shaping customers' levels of satisfaction. These findings align with previous studies conducted in diverse industries and countries, suggesting a consistent relationship between e-government service quality and customer satisfaction.

As a result of the study's findings, several recommendations were proposed. These recommendations aimed to enhance the quality of e-government services and further improve customer satisfaction. For example, suggestions were made to continue providing secure login and password systems to ensure privacy and security. The study also recommended improving website design and ease of use to enhance efficiency. Additionally, the importance of maintaining reliable and responsive support services was emphasized.

Overall, the chapter provided a comprehensive summary of the data findings, conclusions, and recommendations, highlighting the significance of e-government service quality in influencing customer satisfaction at MOTI's yeka site.

In the analysis of the study, several statistical techniques were employed, including descriptive statistics, correlation analysis, and multiple linear regression analysis. These techniques were used to examine the relationship between e-government service quality and customer satisfaction at MOTI's yeka site.

Along with analysing the relationship between the variables that were important, the research also collected background information from the respondents. This information provides a profile of the participants and helps in understanding the characteristics of the sample.

According to the background information, the majority of the respondents were male, accounting for 69.1% of the sample. In terms of age distribution, the largest proportion of respondents fell within the 31-40 age category, comprising 37.3% of the sample. The next two age categories with significant representation were 45-60 years (32.3%) and 18-30 years (22.9%). Regarding educational qualifications, the majority of respondents held a bachelor's degree, accounting for 40.9% of the sample. This was followed by respondents with a diploma, making up 21.3% of the sample. Respondents with a master's degree constituted 20.7% of the sample.

These background information findings provide insights into the demographic characteristics of the respondents in terms of gender, age, and educational qualifications. They offer a context for interpreting the subsequent analyses and understanding the perspectives of the participants in relation to e-government service quality and customer satisfaction.

It is important to note that these findings are specific to the study sample and may not be generalizable to the entire population. However, they contribute to understanding the characteristics of the respondents involved in the study and provide valuable information for interpreting the results.

The customers of MOTI's e-trade website perceived Trust to be the most dominant e-government service quality dimension, as it received the highest mean score of 4.35 with a standard deviation of 0.725. This indicates that customers highly valued and trusted the privacy and security provided by the website. Efficiency was also highly rated, with a mean score of 4.28 and a standard deviation of 0.765. This suggests that customers found the website easy to use and customizable to meet their individual needs.

The dimension of Support received a moderately high mean score of 3.89, with a standard deviation of 0.961. This indicates that customers felt they received a satisfactory level of assistance and support from MOTI's staff while using the e-trade site. Reliability, on the other hand, received a slightly lower mean score of 3.69 with a standard deviation of 0.919, suggesting that customers had a moderate level of satisfaction with the website's performance in terms of successfully meeting their requests. Overall, customers of the e-trade site were moderately satisfied with a mean score of 4.06 and a standard deviation of 0.966, indicating that they were generally satisfied with the e-government services provided through the website.

These findings provide insights into the perceptions and satisfaction levels of customers using MOTI's e-trade website. Trust and Efficiency are identified as key strengths of the website, while Support and Reliability are areas that could potentially be further improved to enhance customer satisfaction.

The Pearson correlation analysis revealed significant correlations among the variables Efficiency, Trust, Reliability, Support, and Overall Satisfaction.

Efficiency showed strong positive correlations with reliability ($r = 0.913$, $p < 0.01$), trust ($r = 0.970$, $p < 0.01$), and support ($r = 0.904$, $p < 0.01$). This suggests that higher levels of efficiency are associated with increased reliability, trust, and support.

Reliability exhibited strong positive correlations with trust ($r = 0.926, p < 0.01$) and support ($r = 0.939, p < 0.01$), indicating that higher levels of trust are related to greater reliability and support.

Trust demonstrated a strong positive correlation with support ($r = 0.928, p < 0.01$), indicating that greater reliability is associated with better support.

Furthermore, overall satisfaction exhibited significant positive correlations with efficiency ($r = 0.918, p < 0.01$), reliability ($r = 0.934, p < 0.01$), trust ($r = 0.944, p < 0.01$), and support ($r = 0.984, p < 0.01$). This suggests that higher levels of overall satisfaction are associated with higher levels of efficiency, trust, reliability, and support.

In conclusion, the results demonstrate that efficiency, reliability, trust, and support are all positively correlated with each other and with overall satisfaction. These findings suggest that improving these factors within an e-trade service can contribute to higher levels of customer satisfaction.

The regression analysis was conducted to examine the relationship between e-government service quality dimensions (Efficiency, Reliability, Trust, and Support) and customer satisfaction. The model summary revealed that the regression model had a significant overall fit, as indicated by the highly significant R-squared value of 0.975, suggesting that approximately 97.5% of the variance in customer satisfaction can be explained by the service quality dimensions.

The coefficients of the independent variables provided insights into their individual impacts on customer satisfaction. Efficiency showed a positive and significant effect ($p < 0.001$), with a standardized coefficient (Beta) of 0.389, indicating that higher efficiency is associated with increased customer satisfaction. Reliability also had a strong positive impact ($p < 0.001$) with a Beta of 0.579, suggesting that greater reliability leads to higher customer satisfaction.

Trust exhibited a moderate positive effect ($p < 0.001$) on customer satisfaction, with a Beta of 0.222. This implies that higher levels of trust contribute to increased customer satisfaction. Support had the strongest positive impact ($p < 0.001$) on customer satisfaction, with a Beta of 0.777. This suggests that providing effective support services significantly enhances customer satisfaction.

The results confirm that the e-government service quality dimensions of Efficiency, Reliability, Trust, and Support are important factors influencing customer satisfaction. These findings emphasize the significance of prioritizing and improving these dimensions to enhance overall customer satisfaction in the context of MOTI's Yeka site.

5.2 Conclusion

In conclusion, this study has shed light on the quality of e-government services provided by the Ethiopian Ministry of Trade (MOTI) through its e-trade internet portal and its impact on customer satisfaction. The findings reveal a significant level of customer satisfaction, indicating that MOTI has made considerable strides in delivering a satisfactory e-trade experience. However, there are areas for improvement that can elevate the service to new heights.

The standout dimension of e-government service quality identified by customers is support, highlighting the crucial role it plays in shaping their satisfaction. MOTI should capitalize on this insight and make support a focal point for continuous improvement, ensuring that customers

receive the necessary assistance and guidance throughout their e-trade journey. At the same time, MOTI must not overlook the significance of the other three dimensions - efficiency, reliability, and trust - as they all contribute to customers' overall perception of service quality.

The study's findings emphasize the strong and positive relationship between e-government service quality dimensions and customer satisfaction. By investing in enhancements across all dimensions, MOTI can not only meet but exceed customer expectations, fostering a sense of efficiency, reliability, trust, and support. This, in turn, will solidify MOTI's position as a leading provider of e-government services, driving increased customer satisfaction and engagement.

As MOTI moves forward, it should leverage the insights from this study to inform its strategies and initiatives. By prioritizing the continuous improvement of e-trade services and incorporating customer feedback, MOTI can create an amazing and exceptional user experience. This will empower customers, streamline transactions, and further strengthen the bonds of trust between MOTI and its e-trade users.

In conclusion, this study sets the stage for MOTI to embrace innovation, foster a customer-centric approach, and cement its position as a trailblazer in e-government service delivery. With a steadfast commitment to excellence and a focus on meeting and exceeding customer expectations, MOTI can propel the e-trade experience to new heights, benefiting both the organization and its valued customers.

5.3 Recommendation

According to the results and conclusions of the research, the following recommendations are proposed to enhance the quality of e-government services provided by the Ministry of Trade and Industry and further improve customer satisfaction:

- ❖ **Strengthen Support Services:** Given the importance of support in influencing customer satisfaction, MOTI should invest in enhancing its support services. This can be achieved by providing timely and comprehensive assistance to users, implementing effective communication channels, and ensuring knowledgeable and responsive staff members are available to address customer queries and concerns.
- ❖ **Continuous Improvement of Efficiency:** While efficiency received a relatively high mean score, there is always room for improvement. MOTI should focus on streamlining processes, reducing response times, and optimizing the e-trade platform's performance. By minimizing delays and maximizing the efficiency of transactions, MOTI can enhance the overall user experience and increase customer satisfaction.
- ❖ **Enhance Reliability Measures:** Reliability is crucial for establishing trust and confidence in e-government services. MOTI should implement robust security measures to safeguard user information and ensure data privacy. Regular system maintenance and updates should also be carried out to minimize service disruptions and downtime, instilling confidence in users regarding the reliability of the e-trade platform.
- ❖ **Foster Trust and Transparency:** Trust is an essential factor in customer satisfaction. MOTI should prioritize building trust by transparently communicating its policies, security

measures, and data handling practices. Clear and accessible terms and conditions should be provided to users, assuring them of the integrity and confidentiality of their transactions and personal information.

- ❖ **Regular Evaluation and Feedback:** MOTI should establish a mechanism to collect and analyse feedback from e-trade users on an ongoing basis. This can be done through surveys, feedback forms, or focus group discussions. The insights gathered can help identify areas for improvement and guide future enhancements of the e-government services, ensuring they remain aligned with user expectations.
- ❖ **Collaboration and Partnerships:** MOTI should actively seek collaboration with other government agencies, private sector entities, and technology providers to leverage synergies and benefit from best practices in e-government service delivery. Collaborative efforts can lead to innovative solutions, improved service offerings, and a more seamless and integrated e-trade experience for customers.
- ❖ **User Education and Awareness:** MOTI should undertake initiatives to educate and raise awareness among users about the available e-government services, their benefits, and how to effectively utilize them. This can be achieved through user training programs, informative guides, and targeted marketing campaigns. By empowering users with knowledge and skills, MOTI can enhance their engagement and satisfaction with e-trade services.
- ❖ **Continuous Research and Development:** MOTI should remain proactive in monitoring advancements in technology, user preferences, and global best practices in e-government service delivery. By investing in research and development initiatives, MOTI can stay ahead of evolving customer expectations and incorporate innovative features and functionalities into its e-trade platform.

By implementing these recommendations, MOTI can further enhance the quality of its e-government services, foster greater customer satisfaction, and position itself as a leading provider of efficient and reliable e-trade solutions in Ethiopia

5.4 Future research and limitation

Future Research:

- ❖ **Provider Perspective:** Future research can explore the perspective of service providers and stakeholders involved in delivering e-government services. Understanding their perceptions, challenges, and strategies can provide insights into improving service quality and customer satisfaction.
- ❖ **Extended Service Quality Dimensions:** Expanding the scope of e-government service quality dimensions beyond the ones studied in this research can provide a more comprehensive understanding. Including additional dimensions, such as responsiveness, personalization, and information accuracy, can contribute to a more robust assessment of service quality.

- ❖ **Diverse Sample:** Conducting research with a more diverse and representative sample, including customers from different regions and demographic backgrounds, can enhance the generalizability of the findings. This can provide a broader perspective on customer satisfaction with e-government services.
- ❖ **Comparative Studies:** Comparative studies can be conducted to compare the e-government service quality and customer satisfaction between different government agencies or departments. This can shed light on the variations in service delivery and identify areas for improvement.

Limitations:

- ❖ **Sample Size and Generalizability:** The study's findings are based on a specific sample size and may not be fully representative of the entire population. Future research should aim for larger sample sizes and diverse participant selection to increase the generalizability of the findings.
- ❖ **Contextual Limitations:** This study focused on the Ethiopian context and the specific e-trade site of MOTI. The findings may not be directly applicable to other e-government platforms or different cultural contexts. Future research should consider multiple contexts to assess the transferability of the results.
- ❖ **Methodological Considerations:** The current study employed a specific methodology, and future research can explore alternative research designs, such as mixed-method approaches or experimental designs, to strengthen the validity and reliability of the findings.
- ❖ **Customer Perception Bias:** The study relied on customers' self-reported perceptions and satisfaction ratings, which can be subjective and influenced by various biases. Future research can incorporate objective measures and multiple data sources to mitigate potential biases and provide a more comprehensive assessment of customer satisfaction.
- ❖ **Time Constraints:** The study was conducted within a specific timeframe, and future research could consider longitudinal studies to examine the long-term dynamics of e-government service quality and customer satisfaction. This can provide insights into the sustainability and evolution of customer satisfaction over time.

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APPENDIX

APPENDIX I: QUESTIONNAIRE FOR CUSTOMERS (ENGLISH VERSION)

ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

DEPARTEMENT OF MANAGEMENT

MBA PROGRAM

QUESTIONNAIRE TO BE FILLED BY CUSTOMER

Dear respondents;

My name is FrehiwotTadesse. The purpose of this study is for a partial fulfillment of the requirements for the Masters of business administration at Addis Ababa University, College of Business and Economics. The objective of this questionnaire is to gather information on the impact of e-government service quality dimensions provided by MOTI on achieving customer satisfaction. The information supplied by you will be held strictly confidential and shall be used for academic purpose only. On the contrary, the findings of the research may be used to improve the quality of e-services rendered by MOTI to its customers. You will not be held responsible for anything advising thereof.

Thank you very much in advance for your cooperation!

Please contact me for any questions you might have.

FrehiwotTadesse: +251913139295

Email: frehiwoot2123@gmail.com

Section B: E-service quality dimensions

| Quality dimensions | 1.Strongly Disagree | 2.Disagree | 3.Neutral | 4.Agree | 5.Strongly agree |
|--|---------------------|------------|-----------|---------|------------------|
| | 1 | 2 | 3 | 4 | 5 |
| Efficiency | | | | | |
| 1. The e-trade site provided by MOTI is easy to use | | | | | |
| 2. The e-trade site map is well organized and easy to follow. | | | | | |
| 3. The e-trade site is customized to individual users 'need. | | | | | |
| 4. The e-trade site provided is up to date. | | | | | |
| Reliability | | | | | |
| 5. Forms on the e-trade site are downloaded and uploaded in a short time. | | | | | |
| 6. The e-trade site is available and accessible whenever you need it. | | | | | |
| 7. The e-trade site performs the service successfully upon the first request. | | | | | |
| 8. The e-trade site provides service on time. | | | | | |
| 9. The e-trade site works properly with your default browser. | | | | | |
| Trust | | | | | |
| 10. Acquisition of user name and password for e-trade site is secure, | | | | | |
| 11. Only the necessary data are provided for authentication on the e-trade site. | | | | | |
| 12. Data provided by users on the e-trade site are archived securely | | | | | |

| | | | | | |
|--|--|--|--|--|--|
| 13. Data provided by users on the e-trade site are used only for the reason submitted. | | | | | |
| Support | | | | | |
| 14. Employees (MOTI) showed a sincere interest in solving users 'problem. | | | | | |
| 15. Employees give prompt replies to users 'inquiries. | | | | | |
| 16. Employees have the knowledge to answer users 'inquiries. | | | | | |
| 17. Employees have the ability to convey trust and confidence. | | | | | |

Section C: Customer Satisfaction

Level of Customers Satisfaction

| Level of customer satisfaction | Strongly Disagree | Disagree | Neutral | Agree | Strongly Disagree |
|--|-------------------|----------|----------|----------|-------------------|
| | 1 | 2 | 3 | 4 | 5 |
| 19. I am satisfied with the efficiency of e-trade | | | | | |
| 20. I am satisfied with the reliability of e-trade | | | | | |
| 21. I am satisfied with the trust of e-trade | | | | | |
| 22. I am satisfied with the support of e-trade | | | | | |

Thank you for participating in this Survey.

አባሪ

አባሪ I፣ ለደንበኞች መጠይቅ (የእንግሊዘኛ ቅጂ)

አዲስ አበባ ዩኒቨርሲቲ

የንግድ እና ኢኮኖሚ ኮሌጅ

የአስተዳደር ክፍል

ኤም ቢ ኤ ፕሮግራም

በደንበኛ የሚሞላ መጠየቂያ

ውድ ምላሽ ሰጪዎች፣

ፍሬህይወት ታደሰ እባላለሁ። የዚህ ጥናት አላማ በአዲስ አበባ ዩኒቨርሲቲ የቢዝነስ እና ኢኮኖሚክስ ኮሌጅ የቢዝነስ አስተዳደር ማስተርስ መስፈርቶችን በከፊል ለማሟላት ነው። የዚህ መጠይቅ አላማ በMOTI የቀረበው የኢ-መንግስት አገልግሎት የጥራት ልኬቶች የደንበኞችን እርካታ በማሳካት ላይ ያለውን ተጽእኖ መረጃ መሰብሰብ ነው። በእርስዎ የቀረበው መረጃ በጥብቅ ሚስጥራዊ ይሆናል እና ለአካዳሚክ ዓላማ ብቻ ጥቅም ላይ ይውላል። በተቃራኒው የጥናቱ ግኝቶች ኤምኦቲቫ (ንግድ እና ኢንዱስትሪ ሚኒስትር) ለደንበኞቹ የሚሰጠውን የኤሌክትሮኒክስ አገልግሎት ጥራት ለማሻሻል ይጠቅማል። እርሶ ለሚሰጡት ለማንኛውም አስተያየት ተጠያቂ አይሆኑም።

ለትብብርዎ አስቀድል አመሰግናለሁ!

እባክዎን ለሚኖሩዎት ማንኛውም ጥያቄዎች አግኙኝ።

ፍሬህይወት ታደሰ፡ +251913139295

ኢሜል፡ frehiwoot2123@gmail.com

መመሪያ

ክፍል አንድ፡ ዳራ መረጃ

እባክዎን ምልክት ያድርጉ (✓) ወይም ባይውን ቦታ ይሙሉ።

1. ያታ ወንድ ሴት

2. እድሜ 18-30 ዓመት ከ31-45 ዓመት ከ45-60 ዓመት ከ60 ዓመት በላይ

3. የትምህርት ደረጃ

ዲፕሎማ/ የምስክር ወረቀት ዲግሪ ማስተርስ ሌላ፣ እባክዎን ይግለጹ _____

4. የአሁኑ አቋም

የባለቤት ተወካይ

5. የንግድ ተፈጥሮ

የግል ነጋዴ ታላላቅ የተወሰነ የግል ኩባንያ የአክሲዮን ኩባንያ ሌላ፣ እባክዎን ይግለጹ _____

6. ለምን አገልግሎት ኢ-ንግድ ድህረ ገጽን ጎበኙ

አዲስ የንግድ ምዝገባ የንግድ ምዝገባ ማሻሻያ የንግድ ምዝገባ ምትክ
የንግድ ምዝገባ ስረዘ አዲስ ንግድ ፈቃድ የንግድ ፈቃድ እድሳት
የንግድ ስራ ፈቃድ ማሻሻያ የንግድ ስራ ፈቃድ ምትክ የንግድ ስራ ፈቃድ ስረዘ
አዲስ የንግድ ስም የንግድ ስም ማሻሻያ የንግድ ስም ምትክ የንግድ ስም ስረዘ

7. ድህረ ገጽ ምን ያህል ጊዜ ይመለከታሉ ወይም ይደርሳሉ።

በየቀኑ በየሳምንቱ በየወሩ በየሩብ ዓመቱ በየዓመቱ

ክፍል II: የኢ-አገልግሎት ጥራት ልኬቶች

| የጥራት ልኬቶች | 1.በጠንካራ ሁኔታ አልስማማም። | 2.አልስማማም | 3.ገለልተኛ | 4.እስማማለሁ ሁኔታ | 5.በጠንካራ እስማማለሁ። |
|--|---------------------|----------|---------|--------------|-----------------|
| | 1 | 2 | 3 | 4 | 5 |
| ቅልጥፍና | | | | | |
| 1. በኤምኦቲአይ የቀረበው የኢ-ንግድ ጣቢያ ለመጠቀም ቀላል ነው። | | | | | |
| 2. የኢ-ንግድ ጣቢያ መጠይቅ በደንብ የተደራጀ እና ለመከተል ቀላል ነው። | | | | | |
| 3. የኢ-ንግድ ዊብሳይት ለተጠቃሚዎች ፍላጎት የተበጀ ነው። | | | | | |
| 4. የቀረበው የኢ-ንግድ ዊብሳይት ወቅታዊ ነው። | | | | | |
| አስተማማኝነት | | | | | |
| 5. በኢ-ንግድ ጣቢያው ላይ ያሉ ቅጾች በአጭር ጊዜ ውስጥ ይወርዳሉ እና ይሰቀላሉ. | | | | | |
| 6. የኢ-ንግድ ጣቢያው በፈለጉት ጊዜ የሚገኝ እና ተደራሽ ነው። | | | | | |
| 7. የኢ-ንግድ ጣቢያው በመጀመሪያ ጥያቄ አገልግሎቱን በተሳካ ሁኔታ ያከናውናል. | | | | | |
| 8. የኢ-ንግድ ጣቢያው በወቅቱ አገልግሎት ይሰጣል. | | | | | |
| 9. የኢ-ንግድ ጣቢያው በነባሪ አሳሽዎ በትክክል ይሰራል። | | | | | |
| 9. የኢ-ንግድ ጣቢያ ካርታ በደንብ የተደራጀ እና ለመከተል ቀላል ነው። | | | | | |
| አደራ | | | | | |

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| 10. የኢ-ንግድ ጣቢያ የተጠቃሚ ስም እና የይለፍ ቃል ማግኘት ደህንነቱ የተጠበቀ ነው። | | | | | |
| ድጋፍ | | | | | |
| 11. በ ኢ-ንግድ ቦታ ላይ ለማረጋገጫ አስፈላጊው መረጃ ብቻ ቀርቧል. | | | | | |
| 12. በኢ-ንግድ ጣቢያው ላይ በተጠቃሚዎች የቀረበው መረጃ ደህንነቱ በተጠበቀ ሁኔታ ተቀምጧል | | | | | |
| 13. በኢ-ንግድ ጣቢያው ላይ በተጠቃሚዎች የቀረበው መረጃ ጥቅም ላይ የሚውለው ለገባው ምክንያት ብቻ ነው። | | | | | |
| ድጋፍ | | | | | |
| 14. ሰራተኞች (MOTI) የተጠቃሚዎችን ችግር ለመፍታት ልባዊ ፍላጎት አሳይተዋል. | | | | | |
| 15. ሰራተኞች ለተጠቃሚዎች ጥያቄዎች ፈጣን ምላሽ ይሰጣሉ. | | | | | |
| 16. ሰራተኞች የተጠቃሚዎችን ጥያቄዎች ለመመለስ እውቀት አላቸው. | | | | | |
| 17. ሰራተኞች መተማመን እና መተማመንን የማስተላለፍ ችሎታ አላቸው. | | | | | |

ክፍል ሶስት፡ የደንበኛ እርካታ

| የደንበኛ እርካታ ደረጃ | 1.በጠንካራ ሁኔታ አልስማማም። | 2.አልስማማም | 3.ገለልተኛ | 4.እስማማለሁ | 5.በጠንካራ ሁኔታ እስማማለሁ። |
|---------------------------------|---------------------|----------|---------|----------|---------------------|
| | 1 | 2 | 3 | 4 | 5 |
| 19. በኢ-ንግድ ቅልጥፍና ረክቻለሁ | | | | | |
| 20. በኤሌክትሮኒክ ንግድ አስተማማኝነት ረክቻለሁ | | | | | |
| 21. በኤሌክትሮኒክ ንግድ እምነት ረክቻለሁ | | | | | |
| 22. በኢ-ንግድ ድጋፍ ረክቻለሁ | | | | | |

በዚህ ዳሰሳ ላይ ስለተሳተፉ እናመሰግናለን።