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**Impact of Customer Perception towards Electronic  
payment methods on Customer Engagement with SME  
sector in Sri Lanka**

KP Thilina Kalahe

218293A

Master of Business Administration in Management of Technology

Department of Management of Technology  
Faculty of Business

University of Moratuwa  
Sri Lanka

April 2024

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Thesis/Dissertation submitted in partial fulfillment of the requirements for the degree  
Master of Business Administration in Management of Technology

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Sri Lanka

April 2024

## DECLARATION

I declare that this is my own work and this thesis/dissertation does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any other University or Institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text. I retain the right to use this content in whole or part in future works (such as articles or books).

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The above candidate has carried out research for the PhD/MPhil/Masters thesis/dissertation under my supervision. I confirm that the declaration made above by the student is true and correct.

Name of Supervisor: Professor Nalin Abeysekera

Dean: Faculty of Management Studies (FMS)

The Open University of Sri Lanka

Nawala, Nugegoda

Sri Lanka

Signature of the Supervisor:

Date: 4/29/2024

## **DEDICATION**

I dedicate this research project to my family with gratitude for the support and encouragement shown throughout the period.

I also dedicate this to my fellow colleagues, worked together during the academic period.

## **ACKNOWLEDGEMENT**

I would like to thank Prof. Nalin Abeysekara for guiding and supervising me during research period.

Special appreciation for Mr. Lasantha Laksiri for motivating and support extended during the research. I would also thank all the lectures and supervisors from Technology management department for sharing the knowledge.

## **ABSTRACT**

This research is carried out to examine the impact of customer perception towards electronic payment methods on customer engagement with small and medium size enterprises (SMEs) sector of Sri Lanka. With the Physical limitation brought up by the COVID-19 pandemic, the need for electronic contactless payment intensified. Electronic payment methods are an alternative to bypass the weakness of traditional payment methods and will eventually Replace paper-based money in future. Comparing customer usage of Electronic Payment System (EPS) in Sri Lankan with Developed countries, the usage in Sri Lanka is insignificant. SMEs are moving towards EPS and offering Digital solutions to their customers coinciding with Digital Transformation and e-commerce. These enterprises need to identify barriers to implementing proper operational procedures, required infrastructure, equipment and security protocols and trends in information technology that impact their sales and performance. Additionally, businesses should identify the perception factors that influence customer engagement with their businesses with digital payment methods and identify the short coming of physical cash, the customers are trying to mitigate. With the limited literature resources on factors impacting customers perception towards using e-payment with SME, there is no general agreement nor understanding on what perception factors towards e-payment influence their engagement. This study examines different types of EPS, customer perception towards them and how the perception factors identified affect the customer engagement with SMEs through identifying the relationship between trust, benefits, subjective norm, Security and ease of use on the engagement operational elements; customer retention and satisfaction, repurchase and positive word of mouth. To analyze the relationship of identified perception and engagement factors within the Sri Lankan SME sector, Quantitative research was carried out gathering data via an online questioner from a sample of the population. General consumers with knowledge, facilities and will power of making digital transactions was considered as the population for the study accounting for 36% of the general consumers in Sri Lanka. The study revealed that only Trust, Benefits and Ease of use as the significant factors affecting the Customer engagement with SME, through e-payments. Firms thus should focus on improving the Trust, benefits and ease of use of e-payment systems to increase the customer engagement with their business. Based on the data analysis the research has suggested areas where businesses and E-payment system providers can improve to provide the customers with better service offering.

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## LIST OF ABBREVIATIONS

| Abbreviation | Description                  |
|--------------|------------------------------|
| SME          | Small and Medium enterprises |
| E-payment    | Electronic payment method    |
| EPS          | Electronic payment system    |
| Engagement   | Customer engagement          |
| TPB          | Theory of Planned Behavior   |
| TAM          | Technology Acceptance Model  |

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# 1. INTRODUCTION

## 1.1 Background of the Study

Electronic payment system is a solution to overcome the weakness of traditional payment system like cash or cheque payment. E-payments can be defined as the process of payment made without the use of paper-based money in transactions (Junadi & sfenrianto, 2015) providing more benefits to customer and business. With the improvement of technology, digitalization trend and the number of payment methods increased rapidly (Akujor, Chinyere, Eyisi, & sabina, 2020). Electronic payments make it convenient for people to transact without going to bank or teller (Adzroe, Asante, & Agbenyegah, 2018). The spread of online payment is pushed by the evolution of new technology, including the availability of internet connectivity, new systems, and devices such as computers and smartphones (Camilleri & Agius, 2021). The improvement of information technology, number of internet users, availability of online systems for business and mobile applications (Yulianti & Wiguna, 2020) create opportunity to increase electronic payment. Consumers transition to electronic payment was accelerated with quarantine restrictions and attitudes emerged to protect against pandemic (Polovenko, Merinova, & Kopniak, 2021). SMEs should anticipate these trends and develop their infrastructure. There are many electronic payment methods available such as credit cards, internet payment, online payment through banks, mobile applications, payment through mobile service providers, quick Response (QR) and near field communication (NFC) (Nimansa & Kuruwitaarachchi, 2020). The challenge in expanding EPS services in Sri Lanka is the lag in the perception to use digital services (Nimansa & Kuruwitaarachchi, 2020) or EPS in day today transactions.

## 1.2 SME sector in Sri Lanka

SME sector in Sri Lanka plays a pivotal role in fostering economic growth, employment generation and innovation with the country's economy. Of the enterprises SME sector accounts for over 75% and contribute to 52% of the GDP of Sri Lanka (Rassool, 2019). In Sri Lanka SME are considered as institutes where the employees do not exceed 300 and with an annual revenue below 750 million. The sector is comprised of wide array of businesses including manufacturing, services, agriculture and trade.

Considering the state of the economy in Sri Lanka, SME sector provide valuable contributions to the export sector while providing employment opportunities and support the battle against the poverty (THE ROLE OF SMES IN SRI LANKAN EXPORTS, 2021). Development in SME sector can result in wider economic expansion driving consumption and reducing inequality. In the strategic government policy, the development of SME sector is seen as driver of change for inclusive growth and poverty reduction (National Policy Framework for Small Medium Enterprises (SME) Development, 2017).

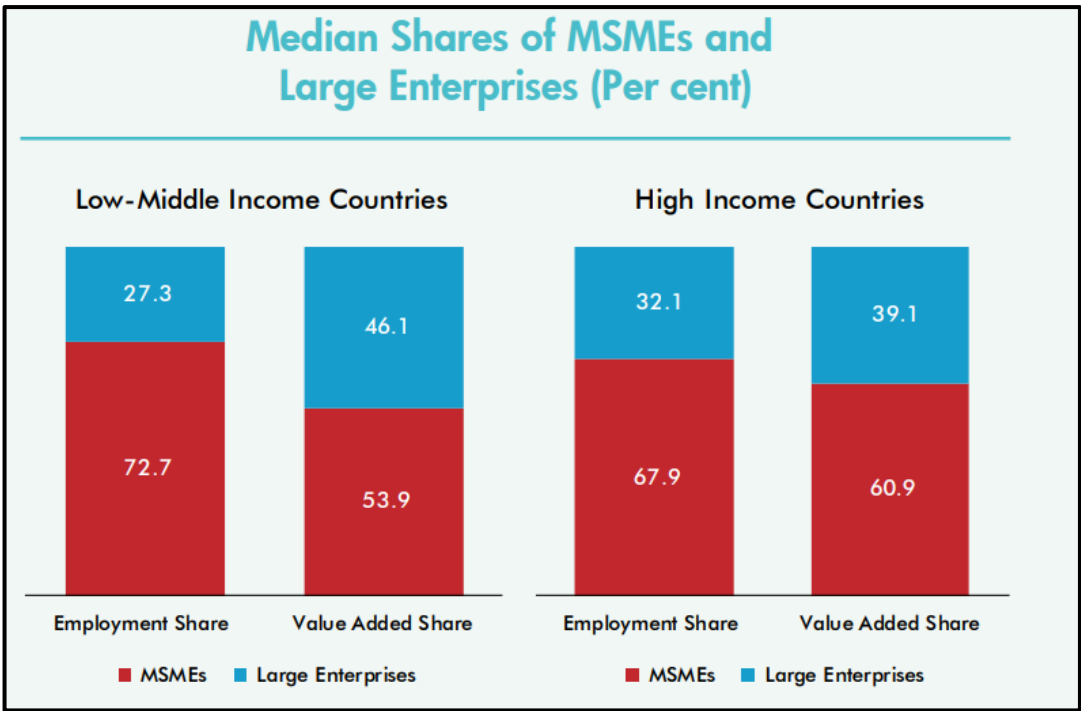
With the aim of revitalizing the Sri Lankan economy, government has deployed policies to support SME sector allowing them to swiftly respond to changing market demands and contribute to overall economic diversification. To address the issues and promote SME development, government has initiated several policies targeting the below areas.

- Export oriented institutions & Import substitution.
- High value adding and innovative organizations.
- Employment generation and reduce urban-rural imbalances.
- Efficient resource usage and Sustainability

According to the institute of certified management accountants of Sri Lanka, one of the main issues hindering the growth of SME in Sri Lanka are issue in cash flow, insufficient access to finance (SMEs: A Boon to the Sri Lankan Economy, 2021) complemented by lack of expertise in finance, accounting and low adaptation technology (Central Bank of Sri Lanka - Annual Report, 2021).

**Figure 1.1**

*MSMEs vs large enterprises median share (Central Bank of Sri Lanka - Annual Report, 2021)*



According to CBSL though large firms are productive and facilitate new knowledge creation, Micro small and medium enterprises (MSMEs) play an important role as a breeding ground for large scale organizations. Considering contribution of the SME sector to GDP, The Development of the SME sector is one of the main aspects of achieving sustainable recovery from current economic downfall (Kulatunga, 2023). It is estimated, Sri Lanka to reach economic sustainability, the output of SME sector should reach 75% (Bamunusinha, 2022) of the GDP.

Analyzing the above facts, it is evident that the improvements for performance of SME sector is more than important now. Where businesses should be dynamic ready to integrate with new technologies (Chen & Mitra, 2022) such as EPS.

### **1.3 E-payment usage in Sri Lankan SME sector**

Adaptation and usage of electronic payments in Sri Lankan context, not seems promising (Kariyawasam & Jayasiri, 2016). SME in Sri Lanka with internet and ICT perform better than off that do not have facilities, creating 2 times higher profits. Adapting digital platforms also enhances productivity and lower the cost of doing business (Yusof, Hariri, Taheer, & Omar, 2019). Yet large number of these firms are unconnected and have not implemented e-payment platforms. 96% of SMEs do not use mobile money services (LIRNEasia, 2020) and only 6% of the businesses can receive credit or debit card payments (Jayasinghe, 2020). Firms can suffer losses when customers walk away from their business due to unavailability of e-payment systems (Yusof, Hariri, Taheer, & Omar, 2019).

The slowness of e-payment adaptation in Sri Lanka is due to the fact, 95% of all the retail transactions are still cash based (Jesuthasan & Jesuthasan, 2021) and there's a reluctance among the consumers to switch to alternate payment methods due to various factors. This trend can clearly observe through the customers often opting to use Cash on delivery on online platforms. Security, Trust and Subjective norm are some of the barriers hindering the adaptation by consumers (Perera & Galdolage, 2021). The adaptation and continuance of e-payment is hindered due to the perception about Trust, security and knowledge gap (Madurapperuma & Wijayanayake, 2021). Therefore, more research is required in identifying customer perception factors influence their engagement with SMEs through e-payments.

### **1.4 Research Problem**

The development of information system technology and e-commerce, the transformation of the traditional economy into digital economy, the expansion of communication channels, the number of innovative payment methods and the number of new electronic devices push consumers to electronic payment systems (Polovenko, Merinova, & Kopniak, 2021). In this digital age, if there is trust and security, customers will use new payment instruments to make transactions (Sumanjeet, 2009). EPS is solution to slowness, cost and risk of traditional payment methods and have become essential infrastructure for commercial transactions. (Mushkudiani, 2018) further stating the possibility of performing transaction anytime anywhere.

Young people are attracted to innovation and are more comfortable to speed up the number of electronic payments (Mushkudiani, 2018). Over the years, advances in technology have evolved the EPS and enhanced transactions. Specially e-commerce infrastructure and online payments through banks (Mushkudiani, 2018) (Tounekti, Ruiz-Martínez, Skarmeta-Gómez, & F., 2021). As the e-payment capability improves,

modern machines including Electronic Data Capture (EDC) and Automated teller machine (ATM) are replacing roles of tellers (Wasiaturrahma & Kurniasari, 2021)

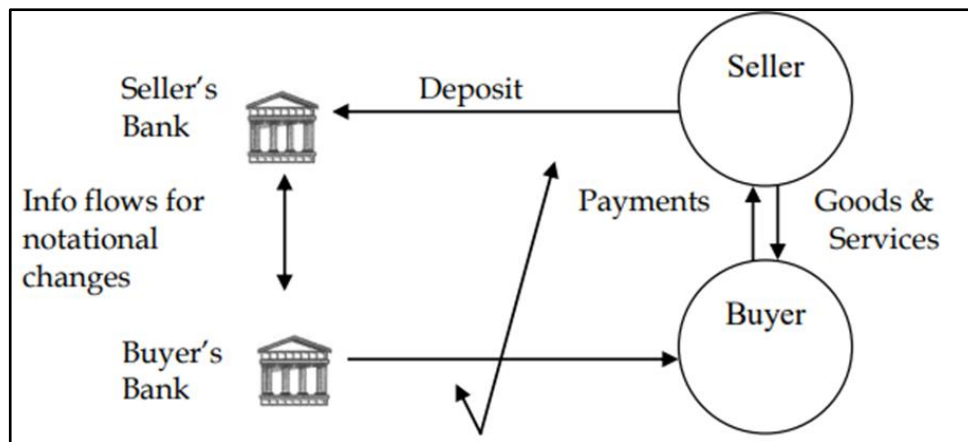
The payment industry supports mix of digital payment instruments and next-generation payment methods to embrace sustainable growth. EPS provide many benefits such as reducing costs, improving customer retention rate, easy and convenient to operate, saving time and increasing propensity to pay (Akujor, Chinyere, Eyisi, & sabina, 2020). Challenges for the development of electronic payments are the cost of the internet, underdeveloped infrastructure, power interruptions, lack of coverage and lack of funds and knowledge to create an electronic payment (Akujor, Chinyere, Eyisi, & sabina, 2020). Electronic payments are driving factor of e-commerce along with innovative devices and contactless payment methods such as QR, Online transfers, remote transfers by phone and mobile wallets (Swiecka, Terefenko, & Paprotny, 2021)

In the Sri Lankan context, although the development of technological infrastructure is significant, popularity of electronic payments does not reach that level (Kariyawasam & Jayasiri, 2016). Covid-19 and prevailing economic turmoil has severely affected Sri Lanka economy and SME sector. Additionally recent political crisis, economic crisis, fuel crisis resulted in customers to perform their transactions through EPS. Amid Difficulties, to continue operations SMEs should Balance their working capital Evolving to digital platforms, e-commerce and adapting EPS is thus essential to survive. credit/debit cards, Mobile service payments QR and other digital transaction services are such options.

With predicted global digital transaction value of USD 9 trillion, annual growth rate of 11.8% and the projected total e-commerce transaction value of USD 6 Trillion (Digital Payment - Worldwide, 2023) EPS continue to expand. The Sri Lankan scenario with digital transaction value of USD 7 billion, annual growth rate of 20.54% and markets largest market mobile POS with total transaction value of USD 3 Billion (Digital Payment - Sri Lanka, 2023) will continue to grow. Though the growth rate is significant, the usage of EPS is not up to expected level. Therefore, identifying the customer perception factors influencing their engagement with SME with e-payment channels is important.

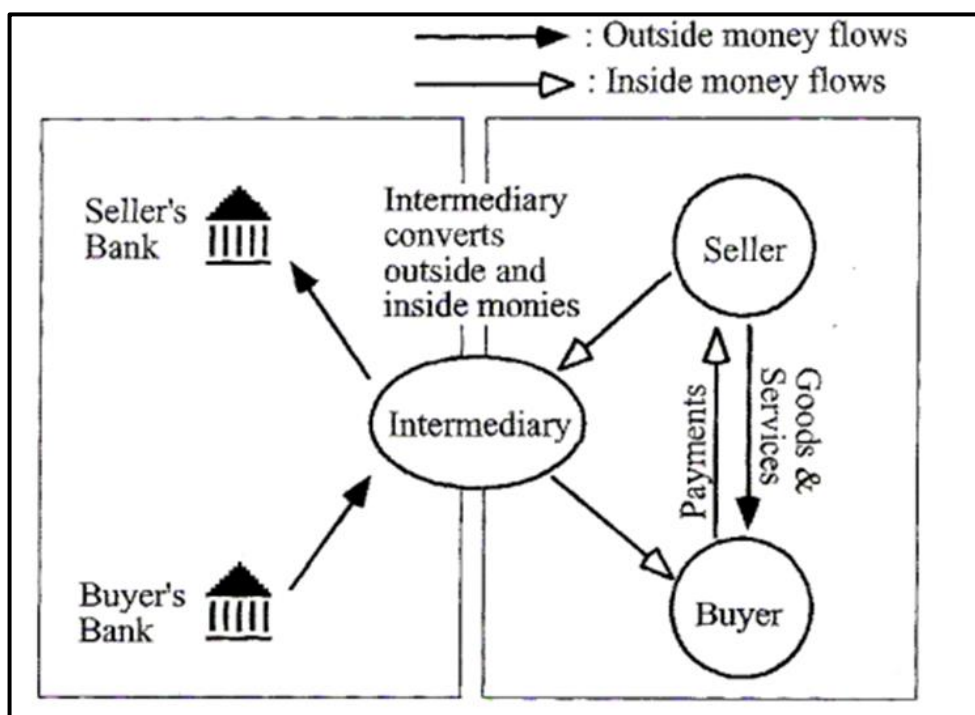
**Figure 1.2**

*Conventional payment flow (Sumanjeet, 2009)*



**Figure 1.3**

*Electronic payment flow (Sumanjeet, 2009)*



### **1.5 Problem Statement**

What are the factors influence customer perception towards electronic payment methods when customers engage with SMEs in Sri Lanka?

### **1.6 Research objectives**

1. Identify the factors influencing customer perception of electronic payment methods.
2. Evaluate the perception factors influence the customer, when the customer engages with SME sector using e-payments methods.

### **1.7 Research Questions**

Reasons for customers choosing alternate payment methods for their payment are ease of use, security, privacy, confidentiality, visual interface design, reliability, usefulness, payment method preference and user satisfaction. (Tounekti, Ruiz-Martínez, Skarmeta-Gómez, & F., 2021). Therefore understanding what factors influence the customers shift from traditional payment to electronic payments is necessary to study (Tounekti, Ruiz-Martínez, Skarmeta-Gómez, & F., 2021).

Therefore, these research questions will help guide this research towards the desired objectives.

1. What are the factors affecting customer's perception of electronic payments methods?
2. What perception factors influence the customer when customers engage with SMEs in Sri Lanka using e-payments?

### **1.8 Scope of the research**

The primary focus of the research was to identify the factors affecting the customer perception towards digital payment systems through the use of existing literature and underline theories. Identifying the wide range of payment instruments and practices was done through referring the central bank report. Compiling the collected data through literature, an online questioner was developed to identify hierarchy of customers choice of payment methods, Identify consumer behavior, lifestyle and customer trends in relation to customer engagement with Digital payment methods.

Relationship between Customer engagement and perception factors towards E-payment was analyzed through the collected sample data and inferences were made on strategies that SME sector should implement to increase customer engagement based on the results.

## **1.9 Significance of the study**

In the global pandemic situation, consumers tried to avoid pay at tellers and cashiers. Complimenting, the economic downfall has created increase in travel cost and risk of carrying cash. Changing payment practices, the SME sector can expect higher velocity in transactions and cash flow. However, the understanding of electronic payments must be clearly identified before consumers can be convinced to pay using modern devices.

According to literature review, different research found different reasons for negative cognition and there is no unique consensus among them. To the best of the researcher's knowledge, research on the above subject is very rare in Sri Lanka. Selected SME sector covers an important aspect of the overall countries economy. Therefore, the researcher aims to identify the reasons that influence the customer perception towards e-payment when engage with SMEs.

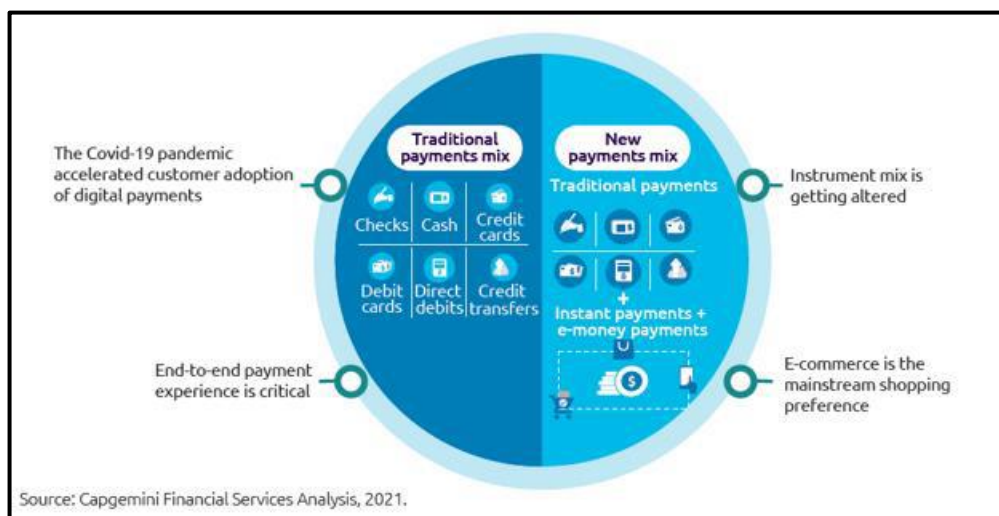
## 2. LITERATURE REVIEW

### 2.1 Introduction to the research theme

Usefulness of traditional payment is limited. And that limitation was affected highly in Covid-19 pandemic. However, electronic payment has evolved drastically as it embraces complimenting technological innovations. It has become an essential instrument for e-commerce, where majority of transactions are starting with EPS.

**Figure 2.1**

Traditional vs new payment mix (*CAPGEMINI'S WORLD PAYMENTS REPORT, 2021*)



E-commerce gives more solutions to today's business. They enhance their target customers, address them, and manage them through e-commerce. Traditionally Most of the Sri Lankan SME sector, especially small-scale enterprises just receive cash for their services. However, with the digital development, significant number of these enterprises have move to e-commerce platforms and provide their services through e-commerce platforms. Further, prevailing working capital issue has led them to embrace more digital solutions. As a result, understanding the trend towards e-payment adaptation and usage is very important to the SME sector.

### 2.2 Theoretical Explanation about the key words in the research

#### 2.2.1 Electronic payment Systems (EPS)

Electronic payment system is used by the payer to transfer value electronically to the receiver (Fatonah, Yulandari, & Wibowo, 2018). (Mushkudiani, 2018) defines EPS as transactions that transfer value to each other electronically. The evolution of electronic payments, associated with equipment, innovation and efficiency has been greatly evolved by the industrial digital transformation 4.0 (Selfira, Abdillah, Harahap, & Muda, 2018).

An electronic payment should be reliable and efficient so that it can lead to better tracking, cost reduction, reduction of multiple transactions like ATM transaction, reduction of paper wastage. Time saving faster payments improved, trust and transparent transactions (Fatonah, Yulandari, & Wibowo, 2018). Additionally, researchers highlight the benefit of EPS to the overall economy from increase tax revenues decrease of shadow economy through reduction of unregistered transactions and will shape the perception and trends of consumers (Mushkudiani, 2018). According to (Tan, 2004) referred by (Tounekti, Ruiz-Martínez, Skarmeta-Gómez, & F., 2021) electronic payments can be categorized into three sub-sections as retail electronic payments, wholesale electronic payments and corporate electronic payment.

### **2.2.2 Perception of payment**

According to the study (Abrazhevich, 2004) consumers perception towards electronic payments is highly dependent on their attitudes. And therefore, has significant impact on their acceptance. Furthermore, (S.Eastin, 2002) asserts that consumers only acquire new services if they have recognizable effect because they had this experience before. This study evaluates the consumers attitude towards electronic payment system based on the diffusion of innovation model in terms of perception because it is more efficient, easy to use, secure and reliable than traditional payment systems.

### **2.2.3 Customer engagement**

In the study of by Masłowska, Malthouse, & Collinger, 2015 4 aspects of engagement are identified. Customer brand experience, brand dialog, brand consumption and shopping behavior. Responding to Stimuli, customers engage with brand/retailer resulting in increased satisfaction, trust and loyalty. (Masłowska, Malthouse, & Collinger, 2015) In the business context, customer engagement is linked with enhancing performance, sales growth of an organization (Brodie, Hollebeek, Juric, & Ilic, 2011) through superior points of differences. In marketing context customer engagement is viewed as a psychological process which drives customer loyalty and promotion of an organization or a brand by becoming a brand advocate.

With the development of relationship marketing and Service dominant logic concepts, customer engagement is viewed as an opportunity for Value co-creation in B2B aspect. Customer engagement in B2C is linked with experience, learning and interactions (Brodie, Hollebeek, Juric, & Ilic, 2011). To promote the purchase intention, organizations should understand and facilitate aspects of customer engagement (N.Bolton, 2011). To retain and win customers, organizations should fulfil customer demands through providing effective customer service (Šonková & Grabowska, 2015). These services are essential elements in building effective relationships with the customer.

## **2.3 Customer perception on electronic payments**

### **2.3.1 Technology acceptance model**

In understanding the factors influencing the customer perception of using e-payments, TAM model can be identified as the core model defining why users accepts and use a new technology. The core factors identified in this model are Usefulness and Ease of use. This model suggests that to influence the customer behavioral and actual intention to use depend on the above factors (Manandhar, 2021).

Customers perception about perceived usefulness of a technology can be influenced by social processes identified as subjective norm (Karki i. , Magar, Devkota, & Parajuli, 2021).

### **2.3.2 Unified theory of acceptance**

Further to elaborate the psychological factors affecting acceptance of information, Unified theory of acceptance was developed. Researchers have identified what information needs to be conveyed to users.

Efficiency and effectiveness of e-payments of payments analyses the customers perception about the performance expectancy of using alternates to physical cash (Davis, Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology, 1989). Reference by influencers can also promote customers to use e-payment systems (Venkatesh V. , Technology Acceptance Model 3 and a Research Agenda on Interventions, 2008). Overall, this model provides a framework in understanding cognitive and social influencers affecting the e-payment adaptation and usage.

### **2.3.3 Herzberg's theory of motivation**

Customer use e-payments systems due to the hygiene factors; protection of personal data and confirmation of transaction completion. Motivational factors, speed ease of use enhance their satisfaction (Treiblmaier, Pinterits, & Floh, Success factors of internet payment systems, 2008).

### **2.3.4 Theory of planned behavior**

The rational human reasoning and information-based decision making are the underline assumptions of this model. While explaining Social and psychological factors influencing customer behavior in specific contexts. Customers knowledge and attitudes towards e-payments affect the decision of use. while the attitude to use, is shaped by experiences and directly influence the behavior. Level of e-payment usage also varies depending on the level of attitude and knowledge (Prayidyaningrum & Djamaludin, 2016). Characteristics of individuals and families have significant relationship with subjective norm and behavior. The influence by parents and friends influences the users to use e-payments (Ayudya & Wibowo, 2018).

### **2.3.4 Impact of customer perception factors on e-payment adaptation and usage**

Brumerickova, Bukova, Komsta, & Rybicka, (2021) have identified six essential attributes of EPS: simplicity and convenience, compatibility, universality, safety, speed and versatility. According to them, the features of good payment system can support future extensions, they should trust the payment system and protect their personal data during transactions, there is no limit to specific payment purpose, no waste of time and can be paid at an acceptable speed, ability to be used for several transaction types to ensure satisfaction. Also, it should be free from complex setup, connectivity with other systems. Ahmed, Aziz, & Muneeb (2019) states that the adoption of e-payment is entirely dependent on time, cost and security.

According to (Treiblmaier & Floh, Success factors of internet payment systems, 2008) study based on model similar to Herzberg's theory of motivation, consumers use e-payment due to hygiene factors; protection of personal data and confirmation of completion of transaction while motivational factors; speed and ease of use enhance their satisfaction. However, (Ozkan, Bindusara, & Hackney, 2010) state that safety, trust, usability, and web assurance seal have significant relationship towards usage of electronic payments while perceived risk has no relationship. This is contrary to much other previous research. Similarly in the study by (Teoh, Chong, & Lin, 2013), it was found that trust and security do not have significant relationship towards e-payment. Contrary to the above finding (Harris, Guru, & Avvari, 2022) found that security, privacy, functionality, and flexibility were critical factors. Alyabes & Alsalloum (2018) reveal that perception of e-payment associate ease of use, self-efficacy and benefits, security, trust towards payment instruments and compatibility.

E-payment usage is affected by the customer perception of advantage, usefulness, trust and ease of use compared with conventional payment methods (Kulathunga & Ekanayake, 2019), importance of contactless transactions brought up by health and epidemic effects, personal innovativeness, perceived integrity are few psychological factors affecting the adaptation while negatively affected by perceived risk (Coskun, Saygili, & Karahan, 2022). Apathy and lack of awareness lead to negative behavior, delaying the study and adaptation of modern payments (Camilleri & Agius, 2021) and electronic payment system should adhere to integrity and authorization, confidentiality and availability and reliability (Naeem, Hameed, & Taha, 2020); ease of use, awareness of usefulness, trust, and product awareness (Huong, Ha, Uyen, & Phuong, 2022). (Hassan, Shukur, Hasan, & Al-Khaleefa, 2020) investigating the security of electronic payments states that the electronic payment system must have security properties such as non-repudiation, confidentiality, integrity, availability and authentication.

Inertia and lack of awareness lead to negative behavior, delaying the study and adoption of modern payments (Camilleri & Agius, 2021). They further reveal that the tendency of the younger generation to use electronic payments is much higher than the tendency of the older generation. However, (Timilsina, 2021) examined the Kathmandu market and found that no significant relationship between e-payment trend

with age, income or gender while in the study by (Karki D. , Magar, Devkota, Parajuli, & Paudel, 2021) Gender and education had significant impact on the perception towards e-payment use. According to (Bagnall, et al., 2014) states that there are several variables that affect the choice of payment method: transaction size, characteristics of the POS, demographic data, and location of operation and acceptance of the buyer's choice of payment instrument. The studies by (Timilsina, 2021) and (Karki D. , Magar, Devkota, Parajuli, & Paudel, 2021) have based their research on TAM model in identifying and describing factors affecting the perception.

Therefore, businesses implement effective verification software and machine-generated information to secure privacy companies should makes sure that the security of the devices minimizes the errors and vulnerabilities of the software (Hassan, Shukur, Hasan, & Al-Khaleefa, 2020).

System security should be highly concerned by businesses (Primadineska & Jannah, 2021). Authentication conflicts with security, when transacting online such as one-time password and payment confirmation. Therefore, companies are deploying multi-factor authentication (MFA) to reduce the impact of hackers (Hassan, Shukur, Hasan, & Al-Khaleefa, 2020). E-payment service providers create comprehensive security systems that improve security and trust (Primadineska & Jannah, 2021). The triple inertia effects of online payments are transition costs, loss aversion and sunk costs, reducing electronic payment behavior (Gong, Zhang, Chen, Cheung, & Lee, 2020).

Efficient payment system can increase the velocity of transactions, resulting in increase of purchasing power of customers (Wasiaturrahma & Kurniasari, 2021). This will result in multiplier effect on the overall economy and SME sector. In the study (Li, et al., 2023) demonstrate this effect through customer retention and satisfaction as a measure of operation performance of an enterprise.

## **2.4 Research gaps**

According to the literature review, there is confusion about the causes of negative behavior and positive behavior towards electronic payments and their quantitative effects. Various researchers examined various factors such as adoption of e-payments, benefits of e-payment acceptance and satisfaction with the e-payment experience (Lai & Ahmad, 2015) (Dehbini, Birjandi, & Birjandi, 2015) (Roy & Sinha, 2014), ease of use, awareness of utility, trust and product uncertainty (Huong, Ha, Uyen, & Phuong, 2022). Most of the researchers have examined the perception of electronic payments on the adaptation aspect (Timilsina, 2021) and very few on the impact on country's economy (Timilsina, 2021). The researcher aims to reveal its impact on the countries SME Sector and provide strategies to improve its performance. Several researchers have provided different influencing factors and definitions for electronic payments so that the researcher has provided clear definitions for all identified variables. This subject area is changing rapidly with digital innovations. Therefore, more recent study is needed to reveal clear ideas.

Therefore, this research paper is prepared to examine the research gaps in the perception to use of e-payment systems and the resulting effects on the engagement with SME Sector.

**Table 2.1**

*variables, their definition and sources*

| Variable                                   | Definition                                                                                                                                                                                                    | Source                                                                                                    |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Electronic payment                         | Exchange of funds initiated via electronic communication channel                                                                                                                                              | (Shon & Swatman, 1998)                                                                                    |
|                                            | payments made through electronic signals linked directly to deposit or credit accounts                                                                                                                        | (Gans & Scheelings, 1999)                                                                                 |
|                                            | non-cash payment that does not involve a paper base                                                                                                                                                           | (Hord, 2007)                                                                                              |
| Customers perception of electronic payment | positive impact on customers intention to use                                                                                                                                                                 | (Teoh, Chong, & Lin, 2013)                                                                                |
| perceived usefulness                       | the opportunities provided by mobile banking and whether it is advantageous to conduct financial transactions using a mobile phone                                                                            | (Aldas-Manzano, Lassala-Navarre, Ruiz-Mafe, & Sanz-Blas, 2009)                                            |
| Benefits                                   | Significant driver for e-payment systems acceptance and use                                                                                                                                                   | (Chou, Lee, & Chung, 2002)                                                                                |
| Perceived risk                             | Belief in the potential uncertainty of customers' mobile money transactions                                                                                                                                   | (Akturan & Tezcan, 2012)                                                                                  |
| Security issues                            | Safe and threat free of electronic payment system                                                                                                                                                             | (Arya, 2021)                                                                                              |
| Ease of use                                | The degree to which one believes it would be simple to use a specific system is referred to as perceived ease of use. Consumers are more inclined to adopt an application that is simpler to use than another | (Davis, Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology, 1989) |
| Trust                                      | function of the degree of risk involved in financial transactions, and the outcome of trust is reduced perceived risk, leading to positive intentions toward e-payment adoption                               | (Yousafzai, Pallister, & Foxall, 2003)                                                                    |
| Subjective norm                            | Impact of Customers, friends, family members and other perceptions                                                                                                                                            | (Venkatesh & Zhang, UNIFIED THEORY OF ACCEPTANCE AND USE OF TECHNOLOGY : U.S. VS. CHINA, 2010)            |
| Customer Engagement                        | mutual beneficial relationship between the customer and business                                                                                                                                              | (Bolton, 2011)                                                                                            |

## **2.5 Chapter conclusion**

Several researchers investigate the impact of electronic payments on society. Few of them consider the factors influencing the choice of payment methods, with special focus on electronic payments. There are more arguments about positive and negative reasons for electronic payments. Researcher has considered development of underline theory models to identify factors. For example, Technology acceptance model (TAM) determines consumer acceptance of electronic payments, but it alone does not explain the customers complex buying behavior patterns and intentions. Therefore, these underline theories; Technology acceptance model, Innovation diffusion model, unified theory of acceptance etc. were combined with additional constructs in identifying factors and developing model.

The researcher found a research gap for the research paper, on factors influencing consumer perception to engage with a business using electronic payment methods with special focus on SME sector in Sri Lanka. The findings relevant to research is mentioned in this chapter. Finally, the operation table is included in the chapter with definitions.

### **3. METHODOLOGY**

#### **3.1 Introduction**

This chapter is focused on how to scientifically answer the research problem, how the factors that affect the customer perception towards electronic payment on customer engagement with SME sector in Sri Lanka. This chapter contains a conceptual framework considering the literature review of previous studies. The researcher has used the models with variables including benefits, trust, subjective norm, security and ease of use of electronic payments. The conceptual framework allows for hypothesis development. Next, data collection methods, sample design and data analysis techniques are discussed.

#### **3.2 Customer perception about Benefits of e-payment systems**

Customers use e-payments because of the many benefits they receive. The speed and practicality are important aspects associated with buying behavior (Cupiadi, Susilawati, & Suganda, 2022). Convenience and versatility identified by (Brumercikova, Bukova, Komsta, & Rybicka, 2021) can also be interpreted as benefits of e-payments. As a base construct in the TAM model perception about perceived benefits of e-payments influence the customer to adapt and use e-payments systems. (Foster, Hurriyati, & Johansyah, 2022)

Therefore,

H1: Perception about Benefits of E-payment positively affects customer's engagement with the SME sector

#### **3.3 Customer perception about Trust of e-payment systems**

Features of a good payment system is trust (Brumercikova, Bukova, Komsta, & Rybicka, 2021). Protection of personal data and confirmation of transactions are characteristics of a trusted payment system (Treiblmaier, Pinterits, & Floh, Success factors of internet payment systems, 2008). (Ozkan, Bindusara, & Hackney, 2010) has identified trust as a factor having significant relationship with electronic payment usage. Trust about e-payment systems also affects customers perception and intention to adopt digital payment (GUPTA & HAKHU2, 2021).

Therefore,

H2: Perception about Trust of E-payment positively affects customer's engagement with the SME sector

#### **3.4 Customer perception about Subjective norm of e-payment systems**

Subjective norm is identified as a significant factor influencing customer behavior in theory of planned behavior model. Subjective norm identified by the variables; knowledge and attitudes shaped by experiences influence the customer behavior and

level of use. Influence by parents, friends and family can have a significant impact on intention to use (Ayudya & Wibowo, 2018).

Therefore,

H3: Perception about Subjective norm of E-payment positively affects customer's engagement with the SME sector

### **3.5 Customer perception about Security of e-payment systems**

Identified as a basic hygiene factor in Herzberg's two factor theory, a secure payment system should protect users personal data and provide confirmation of transactions (Treiblmaier & Floh, Success factors of internet payment systems, 2008). Security is found to have significant relationship towards usage in of e-payment systems (Ozkan, Bindusara, & Hackney, 2010). In the study of (Teoh, Chong, & Lin, 2013), security was found not to have significant relationship towards e-payment. Contrary, (Harris, Guru, & Avvari, 2022) found that security as a critical factor influencing customer engagement.

Therefore,

H4: Perception about Security of E-payment positively affects customer's engagement with the SME sector

### **3.6 Customer perception about Ease of use of e-payment systems**

TAM model identified that adaptation of a new technology is affected by the perceived ease of use. Customers perception of ease of use compared with cash, affect the e-payment usage (Kulathunga & Ekanayake, 2019). To influence the usage of e-payment systems, they should be simplified and convenient (Brumercikova, Bukova, Komsta, & Rybicka, 2021). In the study (Ahammad & Keerthi, 2021) found simplicity has beneficial influence of e-payment adaptation and usage.

Therefore,

H5: Perception about Ease of use of E-payment positively affects customer's engagement with the SME sector

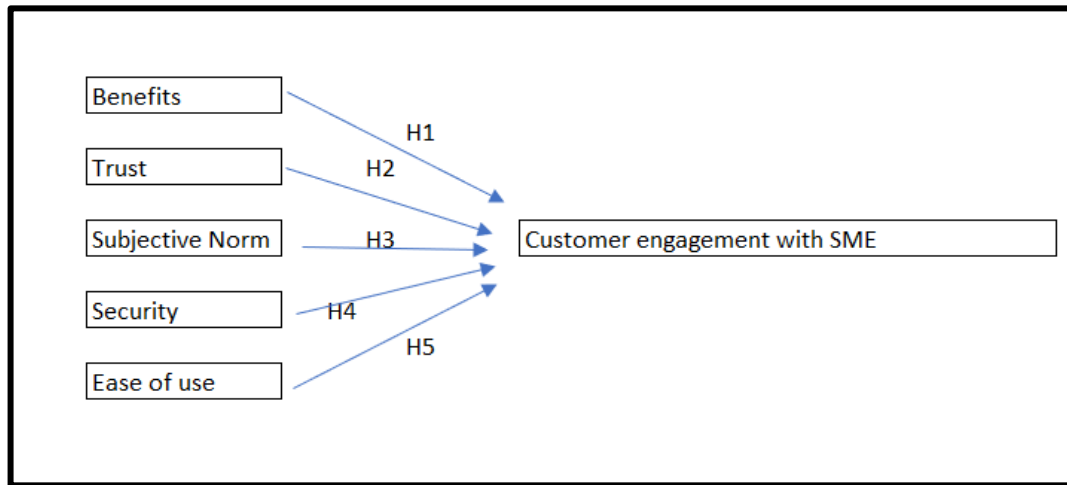
### **3.7 Hypothesis**

1. H1: Perception about Benefits of E-payment positively affects customer's engagement with the SME sector.
2. H2: Perception about Trust of E-payment positively affects customer's engagement with the SME sector.
3. H3: Perception about Subjective norm of E-payment positively affects customer's engagement with the SME sector.
4. H4: Perception about Security of E-payment positively affects customer engagement with the SME sector.
5. H5: Perception about Ease of use of E-payment positively affects customer engagement with the SME sector.

### 3.8 Conceptual Framework

**Figure 3.1**

*Conceptual model*



#### 3.8.1 Independent variables

Customer perception about e-payment systems

1. Benefits (5-point Likert scale)
2. Trust (5-point Likert scale)
3. Subjective norm (5-point Likert scale)
4. Security (5-point Likert scale)
5. Ease of use (5-point Likert scale)

#### 3.8.2 Dependent Variable

1. Customer engagement with the SME sector (5-point Likert scale)

### 3.9 Operationalization Table

**Table 3.1**

*Operationalization table*

| Variable            | Definition                                                                     | Indicator                 | Measure                 | Reference                  |
|---------------------|--------------------------------------------------------------------------------|---------------------------|-------------------------|----------------------------|
| Engagement with SME | Level of Customer engagement via e-payment transactions than cash transactions | 1. Repurchase intention   | Five-point Likert scale | (Bolton, 2011)             |
|                     |                                                                                | 2. Customer Satisfaction  |                         | (Li, et al., 2023)         |
|                     |                                                                                | 3. Positive word of mouth |                         | (Roderick J. Brodie, 2011) |

|                 |                                                                                     |                                         |                         |                                                                                          |
|-----------------|-------------------------------------------------------------------------------------|-----------------------------------------|-------------------------|------------------------------------------------------------------------------------------|
|                 |                                                                                     | 4. Customer retention                   |                         |                                                                                          |
| Benefits        | Advantages receiving from e-payment rather traditional payment.                     | 1. Less cost                            | Five-point Likert scale | (Alyabes & Alsalloum, 2018)                                                              |
|                 |                                                                                     | 2. Time saving                          |                         |                                                                                          |
|                 |                                                                                     | 3. Flexible                             |                         |                                                                                          |
|                 |                                                                                     | 4. Speed                                |                         |                                                                                          |
|                 |                                                                                     | 5. Convenient                           |                         |                                                                                          |
| Trust           | Mitigate perceived risk with intentional adoption or continuous electronic payments | 1. Privacy                              | Five-point Likert scale | (Alyabes & Alsalloum, 2018)                                                              |
|                 |                                                                                     | 2. Confidentiality of given information |                         |                                                                                          |
|                 |                                                                                     | 3. Confidentiality of invoice           |                         |                                                                                          |
|                 |                                                                                     | 4. Fraud                                |                         |                                                                                          |
|                 |                                                                                     | 5. Low risk                             |                         |                                                                                          |
| Subjective norm | Perception about people close, consider should adapt                                | 1. Influence of family members          | Five-point Likert scale | (Venkatesh & Bala, 2008)<br>(Liébana-Cabanillas, Muñoz-Leiva, & Sánchez-Fernández, 2015) |
|                 |                                                                                     | 2. Influence of friends                 |                         |                                                                                          |
|                 |                                                                                     | 3. Recommendations                      |                         |                                                                                          |
|                 |                                                                                     | 4. Self-Esteem                          |                         |                                                                                          |
|                 |                                                                                     | 5. Popularity                           |                         |                                                                                          |

|             |                                                                                       |                       |                         |                                                          |
|-------------|---------------------------------------------------------------------------------------|-----------------------|-------------------------|----------------------------------------------------------|
|             |                                                                                       |                       |                         |                                                          |
| Security    | Possible losses due to such as errors and frauds, unauthorized access, privacy issues | 1. Concern            | Five-point Likert scale | (Alyabes & Alsalloum, 2018)<br>(Camilleri & Agius, 2021) |
|             |                                                                                       | 2. Comparison         |                         |                                                          |
|             |                                                                                       | 3. Safe feeling       |                         |                                                          |
|             |                                                                                       | 4. Influence          |                         |                                                          |
| Ease of use | The degree to which e-payment would be simple to use                                  | 1. Easy to understand | Five-point Likert scale | (Alyabes & Alsalloum, 2018)                              |
|             |                                                                                       | 2. Adaptation         |                         |                                                          |
|             |                                                                                       | 3. Clarify to others  |                         |                                                          |
|             |                                                                                       | 4. No doubt           |                         |                                                          |
|             |                                                                                       | 5. Easy to use        |                         |                                                          |

### 3.10 Methodology

Identifying the variables through literature, a quantitative analysis was conducted to examine and explore factors influencing customer perception of e-payments when engaged with SMEs.

### 3.11 Population, sample and sampling technique

Before selecting the sample size, the total population must be clearly identified and defined. This is a tough task but it's vital to know what is the lowest that can be allowed and what is the highest that can be managed. Therefore, the sample size error can be divided into two, low and large. An undersized sample may not yield valid results and may increase the margin of error. While an over-sized sample will result in more time and cost. the sample size is determined by identifying the similar characteristics of the

sample population and taking into account the margin of error that the researcher can afford and based on the type of analysis (Saunders, Lewis, & Thornhill, 2009)

The preferred margin of error is the positive or negative deviation that the researcher allows on the results of the survey known as the level of precision. The confidence level indicates the certainty of margin of error.

General consumers in Sri Lanka with Buying decision power accounts for 17,161,973 individuals (Statistics, 2023). Considering the internet penetration in Sri Lanka is still at 50.8% and 7.9 million social media users, only 36% (Kemp, 2021) of the general population can be considered to have facilities to use digital payment facilities in their transactions.

The population for this study can be thus, defined as consumers who have the decision-making power to choose mode of payment, with sufficient knowledge and facilities to use Digital payment methods. Since the research is focused on identifying the influencing perception factors to adapt and use e-payment, consumers using e-payment systems or having the capability to use such systems were considered. Using online questioner to get the responses are also inline considering the user capabilities. Similar sampling technique can be seen in the study by (Kulathunga & Ekanayake, 2019). Having the capability the selected population will become the early adopters of potentially expanding e-payment adaptation and usage in SME sector (Madurapperuma & Wijayanayake, 2021). Therefore, the total study population is about 6 million. For a population greater than 100,000 the sample size is 384.

**Figure 3.2**

*Sample size calculation (The Survey System, n.d.)*

**Determine Sample Size**

Confidence Level: ☒ 95% ☐ 99%

Confidence Interval:

Population:

Sample size needed:

In gathering data researcher used nonprobability sampling based on personal judgment and due to importance of experience of some individuals over the entire population for

the purpose of the research. Due to constraints in gathering data the sample size was reduced to 133.

### **3.12 Data Collection Methods**

A data collection can be done through primary data collection and secondary data collection. If there are data to answer research questions elsewhere, researchers seek those data, because they are easy to use and comprehensive, within their reach. For the present study, there were not enough such data to answer the research questions. For this research, the researcher used a self-administered questionnaire to the less biased sample population. Questionnaire is widely used technique that contains series of questions in predetermined order, asks respondents to complete the same responses, and collects data for different surveys (Saunders, Lewis, & Thornhill, 2009). It provides standardized data and facilitates comparison, saving researchers time and benefiting from less personal interaction (Saunders, Lewis, & Thornhill, 2009)

### **3.13 Data Collection tools and plan**

With the aim of gathering relevant data and persuading participant response rate, researcher used the [www.googleforms](http://www.googleforms) platform with clearly defined questions. The online platform allowed participant enough time to think, use their experience and complete the questionnaire while finding enough participants.

The questionnaire for this research contains general information, questions related to independent variable, dependent variable, and demographic variables. These variables are subdivided into sub variables. General information consists of four questions while there are 24 questions to evaluate the independent factors and 5 questions for the dependent factors. Finally, the questions on demographic factors.

The researcher compared the 5-point parallel scale with 7-point scale. The pilot scale was carried out with 7-point Likert scale where rarely one and seven was chosen. Therefore, five-point scale was used for the questioner. The questioner includes list questions and category questions for general information and demographic questions to facilitate respondents. In addition, rating questions were included for independent and dependent variables. The rating type was “agreement” and the equivalent scale had five categories; strongly disagree, disagree, moderately agree and strongly agree.

### **3.14 Data Analysis method**

To determine meaning of collected and tabulated data, analysis was conducted with SPSS software after coding the questions and entering them into the excel sheet followed by the regression analysis. Relationship between selected numerical independent variable and dependent numerical variable were evaluate through the linear regression method with correlation coefficient and coefficient determination to analyze the regression of the study. Finally, the researcher built the multiple regression model regression equation.

### **3.15 Chapter Summary**

Once the researcher developed the model based on existing literature. Based on successful data collection, the analysis was done to identify how the variables factors will influence the dependent factor, customer engagement with SME sector through E-payment systems.

## 4. DATA ANALYSIS

### 4.1 Introduction

In this chapter overview of the data analyzed is presented via different statistical tests. Diagnostic test, descriptive statistics, correlation analysis and regression analysis are carried out to make inferences based on the collected data. The sample characteristics are explained using tables and graphs where necessary. Data analysis is started by analyzing the general characteristic of the respondents followed by the demographic analysis. The reliability and validity of the sample is analyzed by diagnostic test followed by normality tests. The relationship between the variables were analyzed by regression analysis.

### 4.2 Test sample

The data collection method used by the researcher was based on convenience sampling. The data collection was through questioner distributed through \google form. The platform was selected considering the media to the research area. The questioner consisted of question with multiple choices and check boxes, where depending on the question the respondent was given the freedom to select multiple choices.

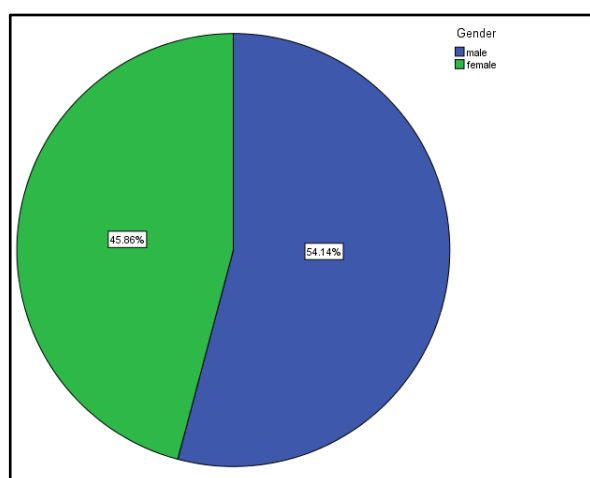
The characteristics of the sample is described using descriptive statistic tests. Frequency analysis was used to explain the characteristics of the sample. The section of the questioner on the demographic factors is used as the base for this analysis.

### 4.3 Demographic analysis

#### 4.3.1 Gender

**Figure 4.1**

*Analysis of variable - gender*



Based on the sample, majority of the respondents were male while the females accounting for 45% of the responses.

#### 4.3.2 Age

**Table 4.1**

*Analysis of Age*

|       |         | Frequency | Percent | Valid<br>Percent | Cumulative<br>Percent |
|-------|---------|-----------|---------|------------------|-----------------------|
| Valid | below20 | 12        | 9.0     | 9.0              | 9.0                   |
|       | 21-30   | 35        | 26.3    | 26.3             | 35.3                  |
|       | 31-40   | 40        | 30.1    | 30.1             | 65.4                  |
|       | 41-50   | 37        | 27.8    | 27.8             | 93.2                  |
|       | Over 50 | 9         | 6.8     | 6.8              | 100.0                 |
|       | Total   | 133       | 100.0   | 100.0            |                       |

Majority of the response were of age group 31-40, while 21-30 and 41-50 age groups proving similar rates of responses. The boundary categories have recorded data accounting to 15.8% of the response.

#### 4.3.3 Occupation

**Table 4.2**

*Analysis of Occupations*

|       |              | Frequency | Percent | Valid<br>Percent | Cumulative<br>Percent |
|-------|--------------|-----------|---------|------------------|-----------------------|
| Valid | Student      | 17        | 12.8    | 12.8             | 12.8                  |
|       | Employee     | 83        | 62.4    | 62.4             | 75.2                  |
|       | Unemployed   | 18        | 13.5    | 13.5             | 88.7                  |
|       | Entrepreneur | 12        | 9.0     | 9.0              | 97.7                  |
|       | Retired      | 3         | 2.3     | 2.3              | 100.0                 |
|       | Total        | 133       | 100.0   | 100.0            |                       |

Of the occupation categorization 62% of the respondents are employees. Entrepreneurs and retirees accounting for nearly 12% of the sample. While students and unemployed personal accounting for nearly 13% each.

#### 4.3.4 Income levels

**Table 4.3**

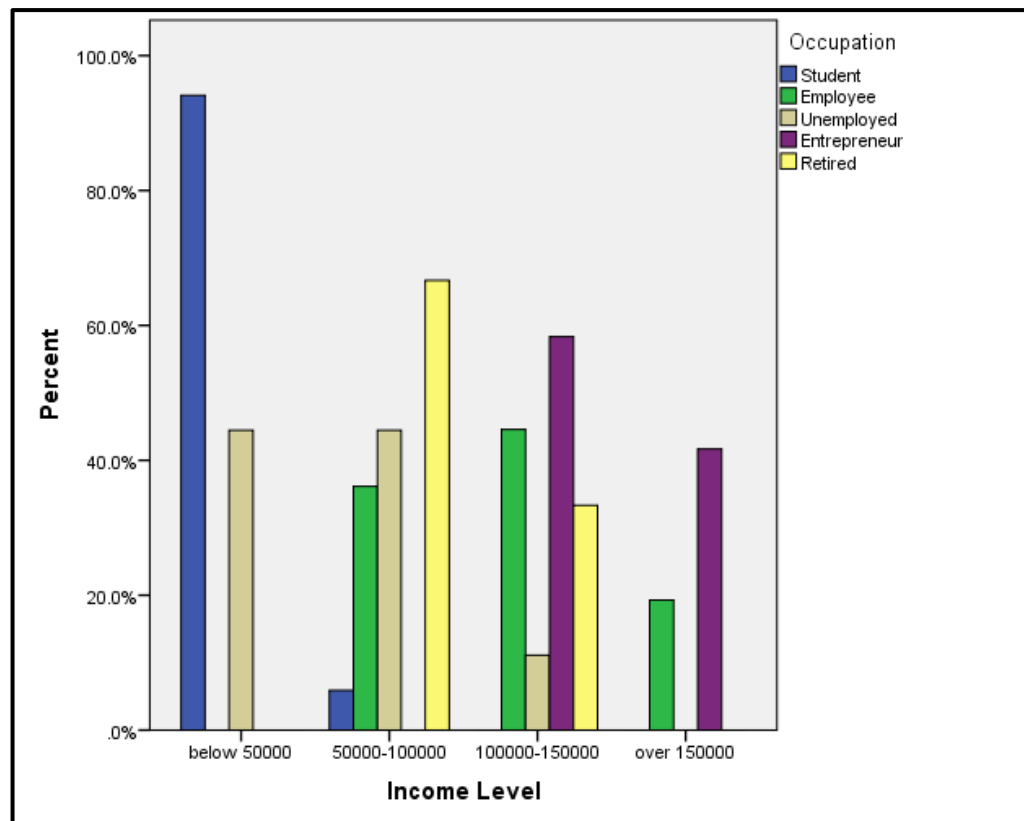
*Analysis of Income*

|                     | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------------------|-----------|---------|---------------|--------------------|
| below 50000         | 24        | 18.0    | 18.0          | 18.0               |
| 50000-100000        | 41        | 30.8    | 30.8          | 48.9               |
| Valid 100000-150000 | 47        | 35.3    | 35.3          | 84.2               |
| over 150000         | 21        | 15.8    | 15.8          | 100.0              |
| Total               | 133       | 100.0   | 100.0         |                    |

Considering the income distribution, 24 respondents have income below 50000. While majority are with income levels 50000-100000 and 100000-150000. 15.8% of the sample earn an income above 150000.

**Figure 4.2**

*Income variation with occupation*



Analyzing the income level with the occupation, majority of the students are below income of 50000. Unemployed personal are distributed among 'below 50000' and '50000-100000'. Entrepreneurs are distributed among the '100000-150000' and 'over 150000' income categories. Employees in the sample are distributed among the 3 income categories of '50000-100000', 100000-150000' and 'over 150000'

## 4.4 Reliability test

### 4.4.1 Reliability of independent variables

Reliability test is performed to ensure the answers given by the respondents to a measured variable is reliable and acceptable. The test is measured through the Cronbach Alpha value. The independent variable measured, “Trust” “Benefits” “ease of Use” “subjective norm” and “Security” are measured through 24 indicators.

**Table 4.4**

*Reliability analysis for independent variables*

| Variable        | Number of indicators | Cronbach's Alpha value | Internal consistency (Darren George, 2003) |
|-----------------|----------------------|------------------------|--------------------------------------------|
| Benefits        | 5                    | 0.819                  | Good                                       |
| Trust           | 5                    | 0.812                  | Good                                       |
| Subjective Norm | 5                    | 0.823                  | Good                                       |
| Security        | 4                    | 0.8                    | Acceptable                                 |
| Ease of use     | 5                    | 0.817                  | Good                                       |

Based on test results, the reliability values for all the independent variables are in between “.7” and “.9”. the reliability if the independent variables are thus assured.

### 4.4.2 The Reliability test for Dependent variable

**Table 4.5**

*Reliability analysis for dependent variables*

| Variable   | Number of indicators | Cronbach's Alpha value | Internal consistency (Darren George, 2003) |
|------------|----------------------|------------------------|--------------------------------------------|
| Engagement | 4                    | 0.794                  | Acceptable                                 |

The result of the test value is within the acceptable range. Thus, the reliability of the dependent variable is assured.

## 4.5 Construct validity

The validity test is aimed at measuring whether the researcher is measuring what is supposed to be measured. The questioner is developed with few questions focused at a single variable or few elements focused on 1 factor. For an acceptable variable, should have 1 construct validity explaining the majority. The validity of a construct of assured by analyzing the KMO value, Bartlett's test of sphericity and Average Variance Explained. A valid construct should carry KMO and AVE value greater than 0.5 and Bartlett's test for sphericity of below 0.05.

#### 4.5.1 Validity of Benefits

**Table 4.6**

*Correlation matrix for factor - Benefits*

|                 |                                                     | Cost of E-pay is less | Performing transactions with E-pay saves time | Flexibility when performing transactions | Transaction speed compared with traditional payment |
|-----------------|-----------------------------------------------------|-----------------------|-----------------------------------------------|------------------------------------------|-----------------------------------------------------|
|                 | Performing transactions with E-pay saves time       | .442                  |                                               |                                          |                                                     |
|                 | Flexibility when performing transactions            | .489                  | .404                                          |                                          |                                                     |
|                 | Transaction speed compared with traditional payment | .425                  | .431                                          | .604                                     |                                                     |
|                 | convenient in performing transactions               | .504                  | .437                                          | .552                                     | .569                                                |
| Sig. (1-tailed) | Performing transactions with E-pay saves time       | .000                  |                                               |                                          |                                                     |
|                 | Flexibility when performing transactions            | .000                  | .000                                          |                                          |                                                     |
|                 | Transaction speed compared with traditional payment | .000                  | .000                                          | .000                                     |                                                     |
|                 | convenient in performing transactions               | .000                  | .000                                          | .000                                     | .000                                                |
|                 |                                                     |                       |                                               |                                          |                                                     |

According to the above table correlation among the elements of benefit are correlated and statistically significant.

**Table 4.7**

*KMO test for validity of Benefits*

|                                                  |         |
|--------------------------------------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | .835    |
| Approx. Chi-Square                               | 218.269 |
| Bartlett's Test of Sphericity df                 | 10      |
| Sig.                                             | .000    |

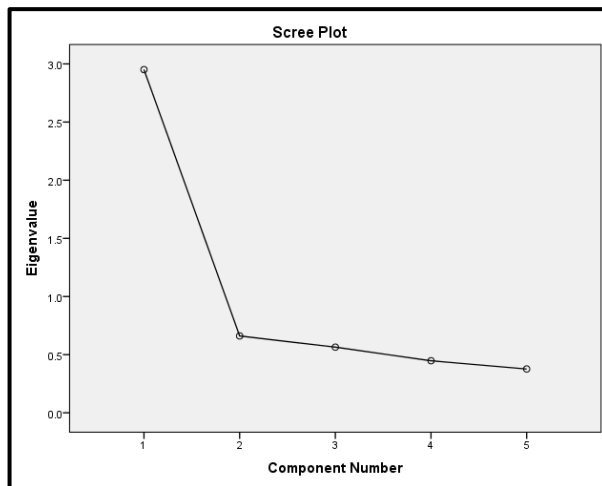
The KMO test value is greater than 0.5. The significance value is below 0.05

**Table 4.8***Test for variance of elements of Benefits*

| Component | Initial Eigenvalues |               |              | Extraction Sums of Squared Loadings |               |              |
|-----------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|
|           | Total               | % of Variance | Cumulative % | Total                               | % of Variance | Cumulative % |
| 1         | 2.951               | 59.020        | 59.020       | 2.951                               | 59.020        | 59.020       |
| 2         | .661                | 13.214        | 72.234       |                                     |               |              |
| 3         | .564                | 11.289        | 83.523       |                                     |               |              |
| 4         | .447                | 8.946         | 92.469       |                                     |               |              |
| 5         | .377                | 7.531         | 100.000      |                                     |               |              |

According to the above table AVE value is greater than 50% and 59% of the total variance is explained by 1 component. Thus, the elements of Benefits has 1 factor and validity of Benefits is assured.

This is further validated by the Scree plot and the Component matrix.

**Figure 4.3***Scree plot for factor - Benefits***Table 4.9***Component matrix for elements of Benefits*

|                                                     | Component |
|-----------------------------------------------------|-----------|
|                                                     | 1         |
| Cost of E-pay is less                               | .739      |
| Performing transactions with E-pay saves time       | .690      |
| Flexibility when performing transactions            | .803      |
| Transaction speed compared with traditional payment | .797      |
| convenient in performing transactions               | .805      |

#### 4.5.2 Validity of Trust

**Table 4.10**

*Correlation matrix for elements of Trust*

|                                               | Trust E-pay<br>protect my<br>privacy in a<br>transaction | No effect to<br>the<br>confidential<br>information | Transaction<br>receipts are<br>delivered on<br>time | Will not lead<br>to transaction<br>fraud |
|-----------------------------------------------|----------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------|------------------------------------------|
| No effect to the confidential<br>information  | .424                                                     |                                                    |                                                     |                                          |
| Transaction receipts are<br>delivered on time | .461                                                     | .464                                               |                                                     |                                          |
| Will not lead to transaction fraud            | .421                                                     | .432                                               | .543                                                |                                          |
| Risk associated is low                        | .490                                                     | .436                                               | .471                                                | .503                                     |
| Sig. (1-tailed)                               |                                                          |                                                    |                                                     |                                          |
| No effect to the confidential<br>information  | .000                                                     |                                                    |                                                     |                                          |
| Transaction receipts are<br>delivered on time | .000                                                     | .000                                               |                                                     |                                          |
| Will not lead to transaction fraud            | .000                                                     | .000                                               | .000                                                |                                          |
| Risk associated is low                        | .000                                                     | .000                                               | .000                                                | .000                                     |

Correlation among the elements of trust is correlated and statistically significant.

**Table 4.11**

*KMO test for validity of elements of Trust*

|                                                  |         |
|--------------------------------------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | .839    |
| Approx. Chi-Square                               | 192.134 |
| Bartlett's Test of Sphericity df                 | 10      |
| Sig.                                             | .000    |

The KMO test value is greater than 0.5. The significance value is below 0.05

**Table 4.12**

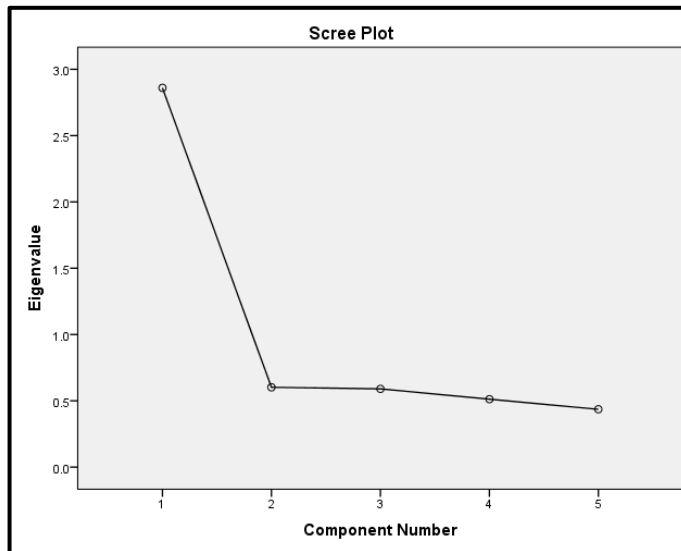
*Test for variance of elements of Trust*

| Component | Initial Eigenvalues |               |              | Extraction Sums of Squared Loadings |               |              |
|-----------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|
|           | Total               | % of Variance | Cumulative % | Total                               | % of Variance | Cumulative % |
| 1         | 2.860               | 57.198        | 57.198       | 2.860                               | 57.198        | 57.198       |
| 2         | .602                | 12.036        | 69.234       |                                     |               |              |
| 3         | .590                | 11.803        | 81.037       |                                     |               |              |
| 4         | .512                | 10.243        | 91.280       |                                     |               |              |
| 5         | .436                | 8.720         | 100.000      |                                     |               |              |

AVE value for elements of Trust is greater than 50% and 57% of the elements are explained by 1 component. Thus, has only 1 factor. Therefore, the validity of Trust is assured.

**Figure 4.4**

*Scree plot for factor Trust*



**Table 4.13**

*Component matrix for elements of Trust*

|                                                 | Component<br>1 |
|-------------------------------------------------|----------------|
| Trust E-pay protect my privacy in a transaction | .736           |
| No effect to the confidential information       | .722           |
| Transaction receipts are delivered on time      | .782           |
| Will not lead to transaction fraud              | .770           |
| Risk associated is low                          | .770           |

### 4.5.3 Validity of Subjective norm

**Table 4.14**

*Correlation matrix for elements of Subjective norm*

|                   | Family and<br>relatives<br>use E-pay | Friends use<br>E-pay | Users<br>recommends<br>E-pay for<br>transactions | Proud to use<br>E-pay |
|-------------------|--------------------------------------|----------------------|--------------------------------------------------|-----------------------|
| Friends use E-pay | .435                                 |                      |                                                  |                       |

|                 |                                         |      |      |      |      |
|-----------------|-----------------------------------------|------|------|------|------|
|                 | Users recommends E-pay for transactions | .481 | .451 |      |      |
|                 | Proud to use E-pay                      | .475 | .407 | .595 |      |
|                 | E-pay improves my status                | .501 | .430 | .561 | .513 |
|                 | Friends use E-pay                       | .000 |      |      |      |
| Sig. (1-tailed) | Users recommends E-pay for transactions | .000 | .000 |      |      |
|                 | Proud to use E-pay                      | .000 | .000 | .000 |      |
|                 | E-pay improves my status                | .000 | .000 | .000 | .000 |
|                 |                                         |      |      |      |      |

Based on the above data, elements of the subjective norm are corelated and statistically significant.

**Table 4.15**

*KMO test for validity of Subjective norm*

|                                                  |         |
|--------------------------------------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | .845    |
| Approx. Chi-Square                               | 213.412 |
| Bartlett's Test of Sphericity df                 | 10      |
| Sig.                                             | .000    |

The KMO test value is greater than 0.5. The significance value is below 0.05

**Table 4.16**

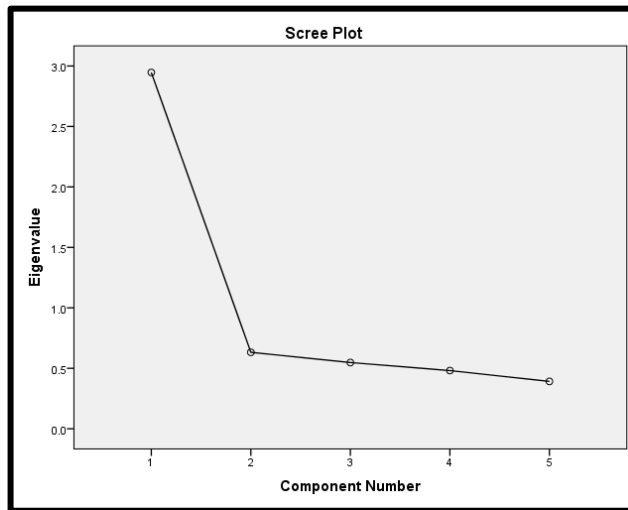
*Covariance matrix for elements of Subjective norm*

| Component | Initial Eigenvalues |               |              | Extraction Sums of Squared Loadings |               |              |
|-----------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|
|           | Total               | % of Variance | Cumulative % | Total                               | % of Variance | Cumulative % |
| 1         | 2.947               | 58.938        | 58.938       | 2.947                               | 58.938        | 58.938       |
| 2         | .632                | 12.648        | 71.586       |                                     |               |              |
| 3         | .548                | 10.954        | 82.540       |                                     |               |              |
| 4         | .481                | 9.622         | 92.163       |                                     |               |              |
| 5         | .392                | 7.837         | 100.000      |                                     |               |              |

AVE value for elements of Subjective norm is greater than 50% and 59% of the variance of the elements are explained by 1 component. Therefore, the elements correspond to one factor and the validity is assured.

**Figure 4.5**

*Scree plot for factor Subjective norm*



**Table 4.17**

*Component matrix for elements of Subjective norm*

|                                         | Component |
|-----------------------------------------|-----------|
|                                         | 1         |
| Family and relatives use E-pay          | .751      |
| Friends use E-pay                       | .695      |
| Users recommends E-pay for transactions | .814      |
| Proud to use E-pay                      | .785      |
| E-pay improves my status                | .788      |

#### 4.5.4 Validity of Security

**Table 4.18**

*Correlation matrix for elements of Security*

|                                             | Less Concerned<br>about the<br>security when<br>using E-pay | E-pay is secure<br>than traditional<br>payment | feels safe after<br>performing<br>transaction |
|---------------------------------------------|-------------------------------------------------------------|------------------------------------------------|-----------------------------------------------|
| E-pay is secure than<br>traditional payment | .426                                                        |                                                |                                               |
| feels safe after performing<br>transaction  | .428                                                        | .475                                           |                                               |

|                 |                                                                          |      |      |      |
|-----------------|--------------------------------------------------------------------------|------|------|------|
| Sig. (1-tailed) | Security of E-pay influence<br>me on to perform transaction<br>with SMEs | .473 | .478 | .762 |
|                 | E-pay is secure than<br>traditional payment                              | .000 |      |      |
|                 | feels safe after performing<br>transaction                               | .000 | .000 |      |
|                 | Security of E-pay influence<br>me on to perform transaction<br>with SMEs | .000 | .000 | .000 |

Based on the above results, the elements of the security are correlated and statistically significant.

**Table 4.19**

*KMO validity test for elements of Security*

|                                                  |      |         |
|--------------------------------------------------|------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. |      | .733    |
| Approx. Chi-Square                               |      | 193.905 |
| Bartlett's Test of Sphericity                    | df   | 6       |
|                                                  | Sig. | .000    |

The KMO test value is greater than 0.5. The significance value is below 0.05

**Table 4.20**

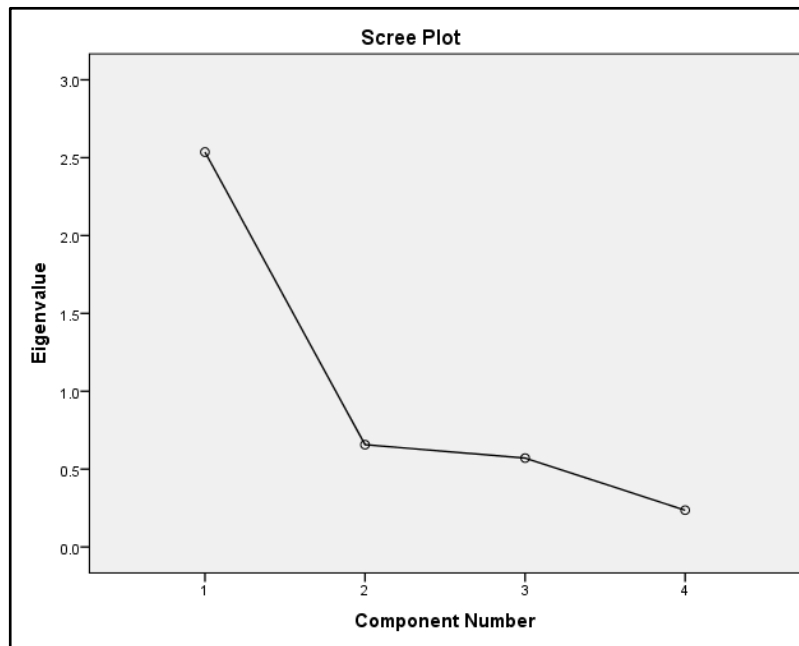
*Covariance matrix for elements of Security*

| Component | Initial Eigenvalues |               |              | Extraction Sums of Squared Loadings |               |              |
|-----------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|
|           | Total               | % of Variance | Cumulative % | Total                               | % of Variance | Cumulative % |
| 1         | 2.536               | 63.403        | 63.403       | 2.536                               | 63.403        | 63.403       |
| 2         | .657                | 16.419        | 79.822       |                                     |               |              |
| 3         | .571                | 14.274        | 94.096       |                                     |               |              |
| 4         | .236                | 5.904         | 100.000      |                                     |               |              |

Based on variance analysis AVE value for elements of security is greater than 50% and 63% of the elements are explained by 1 component. Therefore, the elements of security correspond to 1 factor and the validity is assured.

**Figure 4.6**

*Scree plot for factor Security*



**Table 4.21**

*Component matrix for elements of Security*

|                                                                    | Component |
|--------------------------------------------------------------------|-----------|
|                                                                    | 1         |
| Less Concerned about the security when using E-pay                 | .710      |
| E-pay is secure than traditional payment                           | .733      |
| feels safe after performing transaction                            | .857      |
| Security of E-pay influence me on to perform transaction with SMEs | .872      |

#### 4.5.5 Validity of Ease of use

**Table 4.22**

*Correlation matrix for elements of Security*

|                                                     | E-pay<br>process is<br>clear and<br>easy to<br>understand | Learning to<br>use E-pay is<br>easy | can clarify<br>others on E-<br>pay process | No doubt<br>about the<br>process after<br>performing<br>transactions |
|-----------------------------------------------------|-----------------------------------------------------------|-------------------------------------|--------------------------------------------|----------------------------------------------------------------------|
| Learning to use E-pay is easy                       | .458                                                      |                                     |                                            |                                                                      |
| can clarify others on E-pay<br>process transactions | .489                                                      | .455                                |                                            |                                                                      |

|                        |                                                             |      |      |      |      |
|------------------------|-------------------------------------------------------------|------|------|------|------|
| Sig.<br>(1-<br>tailed) | No doubt about the process after<br>performing transactions | .459 | .615 | .414 |      |
|                        | Convenient to perform<br>transaction with E-pay             | .407 | .451 | .561 | .425 |
|                        | Learning to use E-pay is easy                               | .000 |      |      |      |
|                        | can clarify others on E-pay<br>process transactions         | .000 | .000 |      |      |
|                        | No doubt about the process after<br>performing transactions | .000 | .000 | .000 |      |
|                        | Convenient to perform<br>transaction with E-pay             | .000 | .000 | .000 | .000 |
|                        |                                                             |      |      |      |      |
|                        |                                                             |      |      |      |      |

Based on the correlation analysis, the elements of ease of use are correlated and statistically significant.

**Table 4.23**

*KMO validity test for elements for Ease of use*

|                                                  |    |         |
|--------------------------------------------------|----|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. |    | .808    |
| Approx. Chi-Square                               |    | 211.547 |
| Bartlett's Test of Sphericity                    | df | 10      |
| Sig.                                             |    | .000    |

The KMO test value is greater than 0.5. The significance value is below 0.05

**Table 4.24**

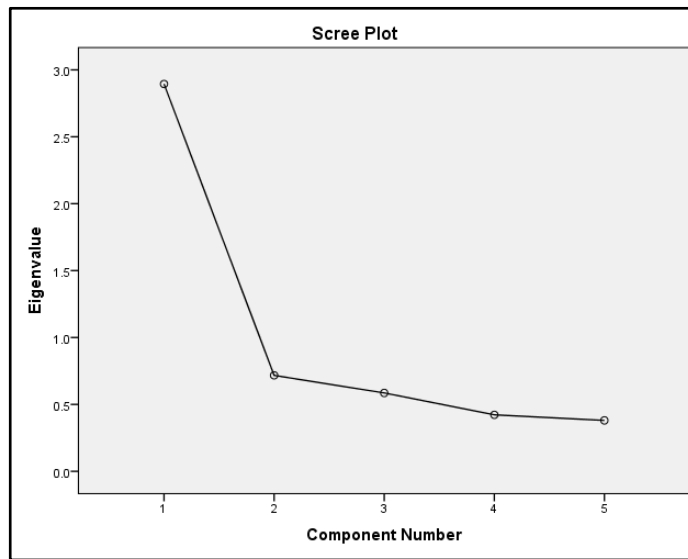
*Variance of elements of Ease of use*

| Component | Initial Eigenvalues |               |              | Extraction Sums of Squared Loadings |               |              |
|-----------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|
|           | Total               | % of Variance | Cumulative % | Total                               | % of Variance | Cumulative % |
| 1         | 2.895               | 57.894        | 57.894       | 2.895                               | 57.894        | 57.894       |
| 2         | .717                | 14.340        | 72.235       |                                     |               |              |
| 3         | .586                | 11.713        | 83.947       |                                     |               |              |
| 4         | .422                | 8.445         | 92.392       |                                     |               |              |
| 5         | .380                | 7.608         | 100.000      |                                     |               |              |

Based on the variance analysis AVE for elements of Ease of use is greater than 50% and 58% of the variance of elements are explained by 1 component. Therefore, the elements correspond to one factor and validity is assured.

**Figure 4.7**

*Scree plot for factor Ease of use*



**Table 4.25**

*Component matrix for elements of Ease of use*

|                                                          | Component<br>1 |
|----------------------------------------------------------|----------------|
| E-pay process is clear and easy to understand            | .735           |
| Learning to use E-pay is easy                            | .788           |
| can clarify others on E-pay process transactions         | .767           |
| No doubt about the process after performing transactions | .768           |
| Convenient to perform transaction with E-pay             | .745           |

#### 4.5.6 Validity of Engagement

**Table 4.26**

*Correlation matrix for elements of Engagement*

|                                                            | Would consider<br>repurchasing<br>from SMEs<br>using E-pay | Performing<br>transaction with<br>E-pay is more<br>satisfying | Would<br>positively speak<br>about SMEs<br>with E-pay<br>facilities |
|------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------------|
| performing transaction with E-pay is<br>more satisfying    | .607                                                       | 1.000                                                         | .438                                                                |
| Would positively speak about SMEs<br>with E-pay facilities | .497                                                       | .438                                                          | 1.000                                                               |

|                 |                                                                       |      |      |      |
|-----------------|-----------------------------------------------------------------------|------|------|------|
| Sig. (1-tailed) | Would continue performing transaction with SMEs with E-pay facilities | .431 | .521 | .468 |
|                 | performing transaction with E-pay is more satisfying                  | .000 |      |      |
|                 | Would positively speak about SMEs with E-pay facilities               | .000 | .000 |      |
|                 | Would continue performing transaction with SMEs with E-pay facilities | .000 | .000 | .000 |

Based on the correlation results, the elements of the “engagement” are correlated and statistically significant.

**Table 4.27**

*KMO validity test for elements of Engagement*

|                                                  |         |
|--------------------------------------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | .756    |
| Approx. Chi-Square                               | 156.873 |
| Bartlett's Test of Sphericity df                 | 6       |
| Sig.                                             | .000    |

The KMO test value is greater than 0.5. The significance value is below 0.05

**Table 4.28**

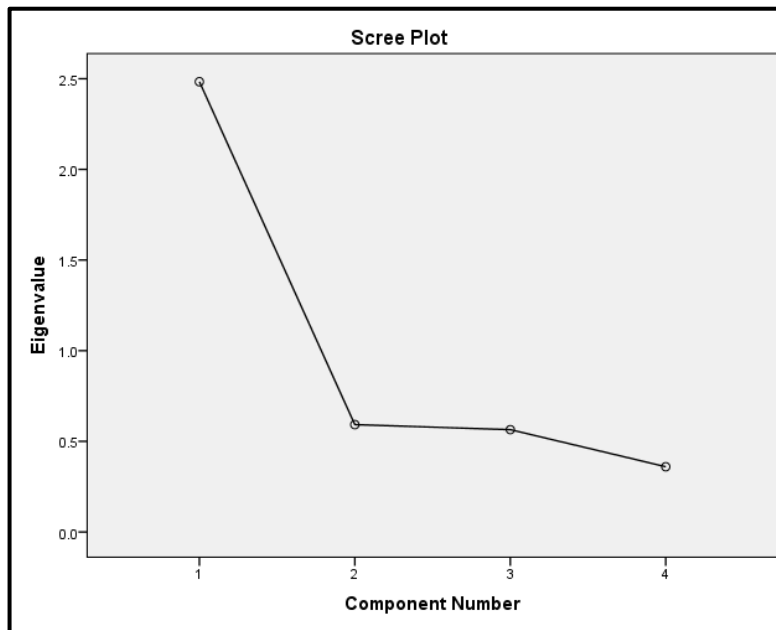
Variance of elements of Engagement

| Component | Initial Eigenvalues |               |              | Extraction Sums of Squared Loadings |               |              |
|-----------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|
|           | Total               | % of Variance | Cumulative % | Total                               | % of Variance | Cumulative % |
| 1         | 2.483               | 62.087        | 62.087       | 2.483                               | 62.087        | 62.087       |
| 2         | .592                | 14.807        | 76.894       |                                     |               |              |
| 3         | .564                | 14.111        | 91.005       |                                     |               |              |
| 4         | .360                | 8.995         | 100.000      |                                     |               |              |

AVE for elements of Engagement is greater than 50% and 62% of the variance of the elements of engagement are explained by 1 component and the elements are corresponding to 1 factor.

**Figure 4.8**

*Scree plot for Engagement*



**Table 4.29**

*Component matrix for elements of Engagement*

|                                                                       | Component |
|-----------------------------------------------------------------------|-----------|
|                                                                       | 1         |
| Would consider repurchasing from SMEs using E-pay                     | .810      |
| performing transaction with E-pay is more satisfying                  | .822      |
| Would positively speak about SMEs with E-pay facilities               | .755      |
| Would continue performing transaction with SMEs with E-pay facilities | .762      |

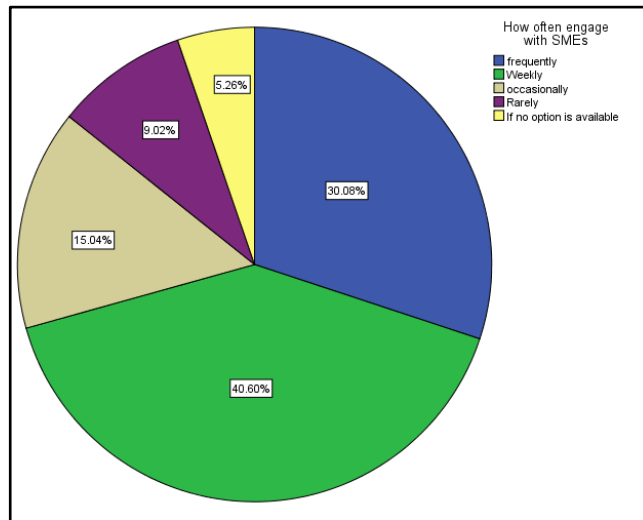
#### **4.6 General information**

Questioning behaviour pattern triggers retrieval of information and experiences (LinChiat Chang, 2003). The questioner was developed, first to get information of respondents general buying behaviour and knowledge on digital payment systems. These 4 questions prepare the respondents for the rest of the questions. The question retrieves information from the sample on the general buying behaviour through E-payment systems which is necessary to make inferences on the population of the research.

#### 4.6.1 Frequency of engagement

**Figure 4.9**

*Customer engagement frequency*

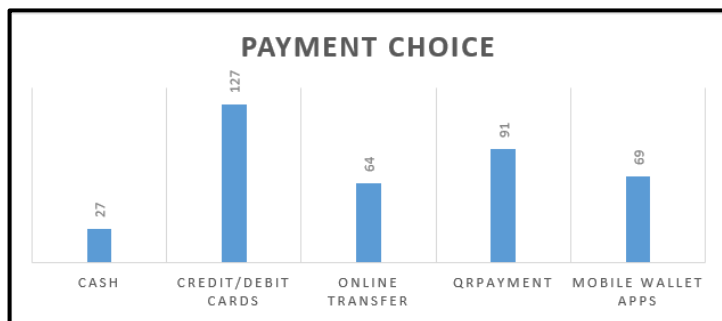


Of the population of 133 respondents 40.6% respondents engage with SMEs weekly. 30% of the population engage with SMEs frequently while 15% of the respondents occasionally engage with SMEs.

#### 4.6.2 Choice of payment

**Figure 4.10**

*Choice of payment method when engage with SMEs*

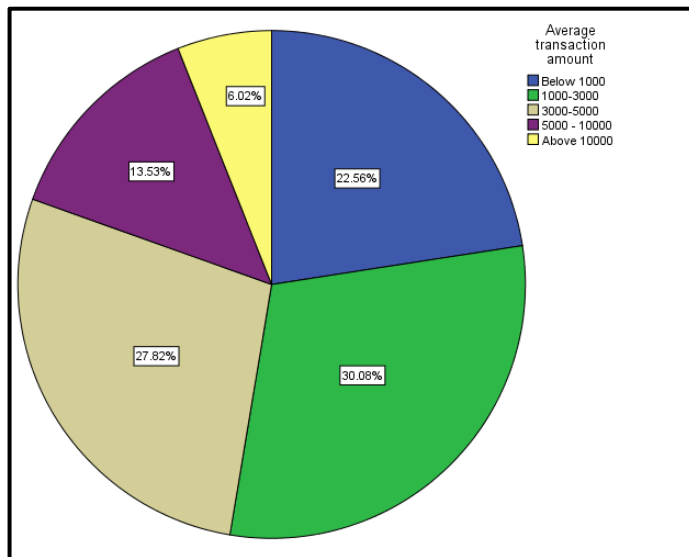


The respondents were given the choice of selecting multiple answers for the payment of their choice when they make transaction with a SME. Majority of the respondents has preferred alternative methods to cash with the most respondents selecting “credit/debit cards” as their preferred choice. 91 respondents have selected preference for “QR based” payment methods. “Mobile wallets” and “online transactions” have been selected by nearly equal respondents. Notably lowest number of respondents are for “cash” as the preferred payment method.

### 4.6.3 Average transaction amount

**Figure 4.11**

*Average transaction amount*

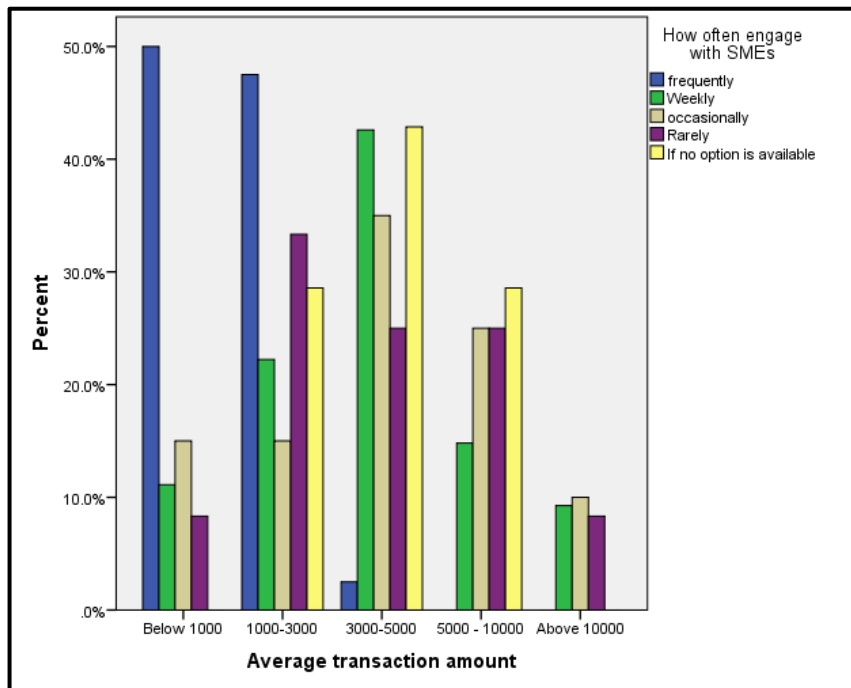


Majority of the population during a transaction spends between 1000-3000 during a transaction. While the transaction amount of 3000-5000 and below 1000 having next highest number of responses respectively. While 6%, lowest percentage spending above 10000 during a transaction.

Respondents performing transactions frequently spends nearly equal in amount of transaction value categories of “below 1000” and “1000-3000”. Respondents performing transaction weekly spends mostly between “3000-5000” and “1000-3000”. Majority of the occasional buyers spends between “3000-5000” and “5000-10000”.

**Figure 4.12**

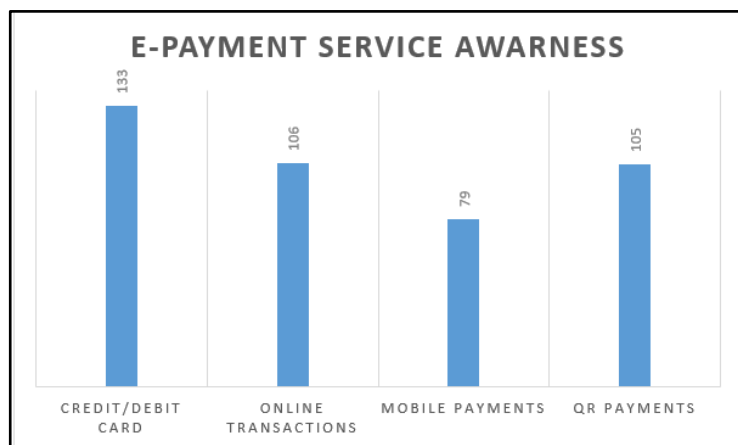
*Average Transaction amount & Frequency of Engagement*



#### 4.6.4 E-payment service awareness

**Figure 4.13**

*E-payment service awareness*



The sample consist of respondents having a fairly good knowledge on E-payment methods. All of the respondents are familiar with credit/Debit cards and this has been the most preferred method of payment. Of the 105 respondents having knowledge on QR payments, have chosen QR as a preferred payment method as well. Lowest knowledge gap among the respondents exists for Mobile payments, only 79 of the 133 respondents having familiarity.

## 4.7 Frequency analysis

### 4.7.1 Independent variables

The independent variables in this study are the factors affecting the customers perception of E-payments. Variables are based on literature. Independent variable consists of 5 factors and 24 elements. These elements were measured through the 5-point Likert scale.

**Table 4.30**

*Frequency analysis for independent variable*

| Factor          | Element                              | Strongly Disagree | Disagree | Neutral | Agree | Strongly agree | Mean value | Std dev |
|-----------------|--------------------------------------|-------------------|----------|---------|-------|----------------|------------|---------|
| Benefits        | Less cost                            | 2.20%             | 6%       | 37.3%   | 30.6% | 23.1%          | 3.67       | 0.975   |
|                 | Time saving                          | 0.7%              | 9.70%    | 29.90%  | 37.3% | 21.60%         | 3.70       | 0.945   |
|                 | Flexible                             | 10.4%             | 35.1%    | 33.60%  | 20.1% | 22.60%         | 3.64       | 0.924   |
|                 | Speed                                | 0.0%              | 7.5%     | 29.10%  | 51.5% | 11.20%         | 3.67       | 0.776   |
|                 | Convenient                           | 0.7%              | 5.2%     | 26.90%  | 56.0% | 10.40%         | 3.71       | 0.757   |
|                 |                                      |                   |          |         |       |                | 3.678      | 0.875   |
| Trust           | Privacy                              | 0.8%              | 1.50%    | 45.5%   | 38.8% | 13.40%         | 3.75       | 0.644   |
|                 | Confidentiality of given information | 0%                | 0.70%    | 29.9%   | 53.0% | 15.70%         | 3.65       | 0.730   |
|                 | Confidentiality of invoice           | 0%                | 0.70%    | 32.8%   | 53.7% | 11.90%         | 3.84       | 0.684   |
|                 | Fraud                                | 0.00%             | 2.20%    | 23.9%   | 57.5% | 15.70%         | 3.77       | 0.658   |
|                 | Low risk                             | 0.00%             | 1.50%    | 31.3%   | 56.7% | 9.70%          | 3.87       | 0.690   |
|                 |                                      |                   |          |         |       |                | 3.776      | 0.681   |
| Subjective norm | Influence of family members          | 0.00%             | 3.7%     | 41.0%   | 44.8% | 9.7%           | 3.61       | 0.716   |
|                 | Influence of friends                 | 0.00%             | 3%       | 34.30%  | 40.3% | 21.60%         | 3.81       | 0.809   |
|                 | Recommendations                      | 0.00%             | 3%       | 37.3%   | 41.8% | 17.20%         | 3.74       | 0.777   |
|                 | Self-esteem                          | 0.00%             | 10.4%    | 30.60%  | 42.5% | 15.7%          | 3.64       | 0.873   |
|                 | Popularity                           | 0%                | 6.0%     | 30.6%   | 49.3% | 13.40%         | 3.71       | 0.776   |
|                 |                                      |                   |          |         |       |                | 3.702      | 0.790   |
| Security        | Concern                              | 0.00%             | 25.40%   | 19.40%  | 44.8% | 9.70%          | 3.39       | 0.976   |
|                 | Comparison                           | 1.50%             | 23.10%   | 16.40%  | 44.8% | 13.40%         | 3.46       | 1.041   |
|                 | Safe feeling                         | 0%                | 17.20%   | 15.2%   | 53.7% | 12.70%         | 3.62       | 0.918   |
|                 | Influence                            | 0.00%             | 16.40%   | 14.9%   | 56.0% | 11.90%         | 3.64       | 0.899   |
|                 |                                      |                   |          |         |       |                | 3.527      | 0.959   |
| Ease of use     | Easy to understand                   | 0.00%             | 0%       | 41.8%   | 52.2% | 5.2%           | 3.63       | 0.584   |
|                 | Adaptation                           | 0.00%             | 3%       | 32.8%   | 49.3% | 14.2%          | 3.75       | 0.732   |
|                 | Clarify others                       | 0.00%             | 2.20%    | 41.80%  | 43.3% | 11.90%         | 3.65       | 0.718   |
|                 | No doubt                             | 0.00%             | 0.70%    | 35.80%  | 48.5% | 14.20%         | 3.77       | 0.695   |
|                 | Easy to use                          | 0.00%             | 1.50%    | 41.80%  | 41.8% | 14.20%         | 3.69       | 0.73    |
|                 |                                      |                   |          |         |       |                | 3.698      | 0.691   |

#### 4.7.2 Dependent Variable

Customer engagement is the dependent variable of this sample. This factor is measured through 4 elements. These elements are analyzed by the 4 questions on the Dependent variable.

**Table 4.31**

*Frequency analysis for dependent variable*

| Factor     | Element                | Strongly Disagree | Disagree | Neutral | Agree  | Strongly agree | Mean value | Std dev |
|------------|------------------------|-------------------|----------|---------|--------|----------------|------------|---------|
| Engagement | Repurchase             | 0.00%             | 6.80%    | 32.30%  | 43.60% | 17.30%         | 3.71       | 0.831   |
|            | Satisfaction           | 0.00%             | 4.50%    | 36.10%  | 50.40% | 9.00%          | 3.64       | 0.711   |
|            | Positive word of mouth | 0.00%             | 1.50%    | 31.60%  | 49.60% | 17.30%         | 3.83       | 0.723   |
|            | Retention              | 0.00%             | 3.00%    | 32.30%  | 54.90% | 9.80%          | 3.71       | 0.681   |
|            |                        |                   |          |         |        |                | 3.7225     | 0.7365  |

The Five-point Likert scale allow the respondents to choose between 5 answers for the questioner. Based on the literature the Likert scale can be classified into 3 measuring segments.

|                    |                          |                      |
|--------------------|--------------------------|----------------------|
| 5<br>High<br>value | 3.677<br>Medium<br>value | 2.33<br>Low<br>value |
|--------------------|--------------------------|----------------------|

For a given element or factor is the mean value is less than 2.33 it is considered as a low value. If it's between 3.67 -2.33, considered as a medium value. While if the mean value is higher than 3.67, it's considered as a high value.

For the indicators of the independent variable Benefits, 2 indicators are in the medium category while the rest in the high value segment. The mean of the Variable Benefits falls under the medium value category.

For the indicators of the independent variable Trust, all the indicators fall under the high value segment. Therefore, the mean of the variable trust falls under the high value segment.

For the indicators of the independent variable Subjective Norm, 2 of the mean values of the elements falls under the medium category and the mean of the variable is in the high value category.

For the indicators of the independent variable Security, all the mean values of the elements fall under the medium category and the mean value of the variable is in the medium value segment.

Similarly for the indicators of the independent variable Ease of use, all the mean values of the indicators and in the high value category and mean of the variable is in high value.

The Mean values of the indicators of the Dependent variable, Engagement has all the values in the high category. The mean value of the variable is a high value.

#### 4.8 Normality test

The generalization of the study is based on the normality of the sample data. Researcher has used Kurtosis and skewness as statistical test and normal probability plots as graphical test tool.

**Table 4.32**

*Test for normality of variables*

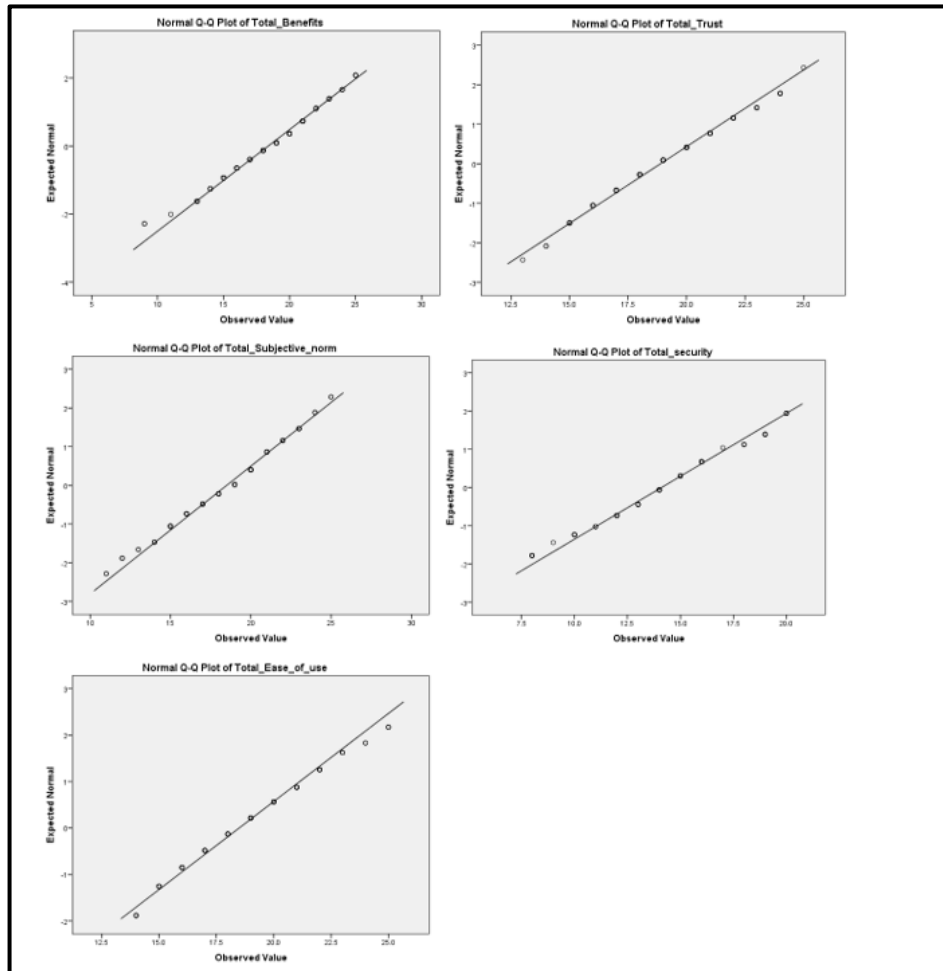
|                 |          | statistic | Std.Error | Z score  | Within + or - 1.96 |
|-----------------|----------|-----------|-----------|----------|--------------------|
| Benefits        | Skewness | -0.248    | 0.21      | -1.18095 | Yes                |
|                 | Kurtosis | -0.21     | 0.417     | -0.50359 | Yes                |
| Trust           | Skewness | -0.186    | 0.21      | -0.88571 | Yes                |
|                 | Kurtosis | -0.501    | 0.417     | -1.20143 | Yes                |
| Subjective Norm | Skewness | -0.247    | 0.21      | -1.17619 | Yes                |
|                 | Kurtosis | -0.342    | 0.417     | -0.82014 | Yes                |
| Security        | Skewness | -0.089    | 0.21      | -0.4238  | Yes                |
|                 | Kurtosis | -0.270    | 0.417     | -0.6474  | Yes                |
| Ease of use     | Skewness | 0.294     | 0.21      | 1.4      | Yes                |
|                 | Kurtosis | -0.442    | 0.417     | -1.0599  | Yes                |
| Engagement      | Skewness | 0.144     | 0.21      | 0.6857   | Yes                |
|                 | Kurtosis | -0.360    | 0.417     | -0.8633  | Yes                |

Z score of the above table depicts the value of skewness divided by the Std-Error. Value between -1.96 to 1.96 indicates that a bell shape exists in the data distribution. Variables with negative skewness indicates higher number of responses to the right side of the mean while positive skewness indicates higher number of responses to the left side of the mean. Majority of the variables are having a negative Kurtosis value. Thus, the distributions are flatter. The probability plots for the above variables represent the graphical representation of the distribution.

#### 4.8.1 Q-Q plots for independent variable

**Figure 4.14**

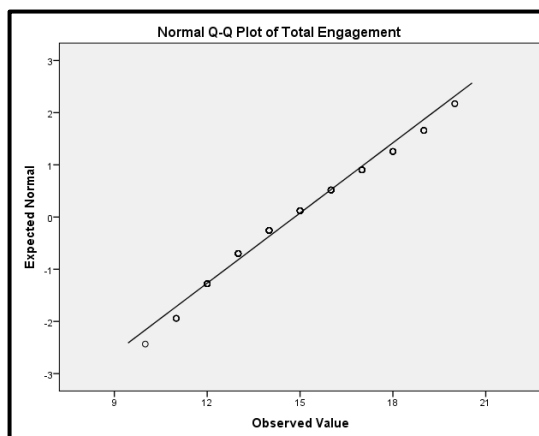
*Normality plots for independent variables*



#### 4.8.2 Q-Q plot for dependent variable

**Figure 4.15**

*Normality plots for dependent variables*



The normal plots for the Independent and dependent variable assures that the points are almost distributed on the line. Therefore, the assumption of normality is justified.

#### 4.9 Assumptions of regression

The Regression analysis between independent variables and dependent variable are based on a set of assumptions of the population (Berry, 2003). These assumptions are tested with various multivariate tests after ensuring the reliability and validity of the sample.

1. Relationship between independent and dependent variables are linear
2. No multi collinearity issue
3. Values of residual are independent
4. Variance of residual is constant
5. Value of residual are normally distributed
6. There are no influence cases biasing the model

These assumptions are tested in depth to prove no violations due to distortion or bias of the data set.

##### 4.9.1 Linearity test

The Assumption of linearity is verified through the analysis of the Anova test for each independent variable against the dependent. The test evaluates the variance between the independent variables in relation to dependent variable.

##### 4.9.1.1 Linearity test for customer engagement and Benefits

**Table 4.33**

*Anova test for Engagement & Benefits*

|                          |               |                | Sum of  | df  | Mean   | F      | Sig. |
|--------------------------|---------------|----------------|---------|-----|--------|--------|------|
|                          |               |                | Squares |     | Square |        |      |
| Engagement *<br>Benefits |               | (Combined)     | 17.949  | 14  | 1.282  | 5.691  | .000 |
|                          | Between       | Linearity      | 14.456  | 1   | 14.456 | 64.168 | .000 |
|                          | Groups        | Deviation from | 3.493   | 13  | .269   | 1.193  | .293 |
|                          |               | Linearity      |         |     |        |        |      |
|                          | Within Groups |                | 26.584  | 118 | .225   |        |      |
| Total                    |               |                | 44.533  | 132 |        |        |      |

Based on the Anova results, there is significant linearity between Engagement and independent variable Benefits. The Deviation from linearity is not significant. Therefore, the assumption of linearity between Engagement and Benefits is assured.

#### 4.9.1.2 Linearity test for customer engagement and Trust

**Table 4.34**

*Anova test for Engagement & Trust*

|                    |               |                | Sum of  | df  | Mean   | F      | Sig. |
|--------------------|---------------|----------------|---------|-----|--------|--------|------|
|                    |               |                | Squares |     | Square |        |      |
| Engagement * Trust |               | (Combined)     | 19.844  | 12  | 1.654  | 8.037  | .000 |
|                    | Between       | Linearity      | 16.825  | 1   | 16.825 | 81.777 | .000 |
|                    | Groups        | Deviation from | 3.019   | 11  | .274   | 1.334  | .214 |
|                    |               | Linearity      |         |     |        |        |      |
|                    | Within Groups |                | 24.689  | 120 | .206   |        |      |
| Total              |               |                | 44.533  | 132 |        |        |      |

Based on the Anova results, there is significant linearity between Engagement and independent variable Trust. The Deviation from linearity is not significant. Therefore, the assumption of linearity between Engagement and Trust is assured.

#### 4.9.1.3 Linearity test for customer engagement and Subjective norm

**Table 4.35**

*Anova test for Engagement & Subjective norm*

|                              |               |                | Sum of  | df  | Mean   | F      | Sig. |
|------------------------------|---------------|----------------|---------|-----|--------|--------|------|
|                              |               |                | Squares |     | Square |        |      |
| Engagement * Subjective norm |               | (Combined)     | 15.920  | 14  | 1.137  | 4.690  | .000 |
|                              | Between       | Linearity      | 12.881  | 1   | 12.881 | 53.124 | .000 |
|                              | Groups        | Deviation from | 3.039   | 13  | .234   | .964   | .491 |
|                              |               | Linearity      |         |     |        |        |      |
|                              | Within Groups |                | 28.612  | 118 | .242   |        |      |
| Total                        |               |                | 44.533  | 132 |        |        |      |

Based on the Anova results, there is significant linearity between Engagement and independent variable Subjective norm. The Deviation from linearity is not significant. Therefore, the assumption of linearity between Engagement and Subjective norm is assured.

#### 4.9.1.4 Linearity test for customer engagement and Security

**Table 4.36**

*Anova test for Engagement & Security*

|              |         |            | Sum of  | df | Mean   | F      | Sig. |
|--------------|---------|------------|---------|----|--------|--------|------|
|              |         |            | Squares |    | Square |        |      |
| Engagement * | Between | (Combined) | 14.511  | 12 | 1.209  | 4.833  | .000 |
| Security     | Groups  | Linearity  | 9.490   | 1  | 9.490  | 37.933 | .000 |

|  |                             |        |     |      |       |      |
|--|-----------------------------|--------|-----|------|-------|------|
|  | Deviation from<br>Linearity | 5.020  | 11  | .456 | 1.824 | .077 |
|  | Within Groups               | 30.022 | 120 | .250 |       |      |
|  | Total                       | 44.533 | 132 |      |       |      |

Based on the Anova results, there is significant linearity between Engagement and independent variable Security. The Deviation from linearity is not significant. Therefore, the assumption of linearity between Engagement and Security is assured.

#### 4.9.1.5 Linearity test for customer engagement and Ease of use

**Table 4.37**

*Anova test for Engagement & Ease of use*

|                             |                                       | Sum of<br>Squares | df  | Mean<br>Square | F      | Sig. |
|-----------------------------|---------------------------------------|-------------------|-----|----------------|--------|------|
|                             | (Combined)                            | 16.260            | 11  | 1.478          | 6.326  | .000 |
|                             | Between<br>Linearity                  | 13.672            | 1   | 13.672         | 58.514 | .000 |
| Engagement * Ease<br>of use | Groups<br>Deviation from<br>Linearity | 2.587             | 10  | .259           | 1.107  | .362 |
|                             | Within Groups                         | 28.273            | 121 | .234           |        |      |
|                             | Total                                 | 44.533            | 132 |                |        |      |

Based on the Anova results, there is significant linearity between Engagement and independent variable Ease of use. The Deviation from linearity is not significant. Therefore, the assumption of linearity between Engagement and Ease of use is assured.

#### 4.9.2 Multi collinearity test

If the results for multi collinearity with values for tolerance greater than 0.1 and value for VIF below 10 is accepted as having no multi collinearity issues (Menard, 1995). The values obtain are all with the accepted levels for this study.

**Table 4.38**

Multi collinearity test of variables

| Model |                 | t     | Sig. | Collinearity Statistics |       |
|-------|-----------------|-------|------|-------------------------|-------|
|       |                 |       |      | Tolerance               | VIF   |
| 1     | (Constant)      | -.355 | .723 |                         |       |
|       | Benefits        | 3.187 | .002 | .657                    | 1.521 |
|       | Trust           | 4.098 | .000 | .639                    | 1.564 |
|       | Subjective norm | 1.918 | .057 | .632                    | 1.581 |
|       | Security        | 1.748 | .083 | .741                    | 1.349 |
|       | Ease of use     | 3.886 | .000 | .754                    | 1.326 |

Dependent variable: Engagement

### 4.9.3 Test for independence of Values of Residuals

The test to identify the responses deviation are independent is done through the Durbin Watson test. The value for this test is 2.5 therefore the independency of the residuals is assured.

**Table 4.39**

*Durbin-Watson test for variables*

| Model | R                 | R Square | Adjusted Square | R Std. Error of the Estimate | Durbin-Watson |
|-------|-------------------|----------|-----------------|------------------------------|---------------|
| 1     | .762 <sup>a</sup> | .581     | .564            | .38348                       | 2.529         |

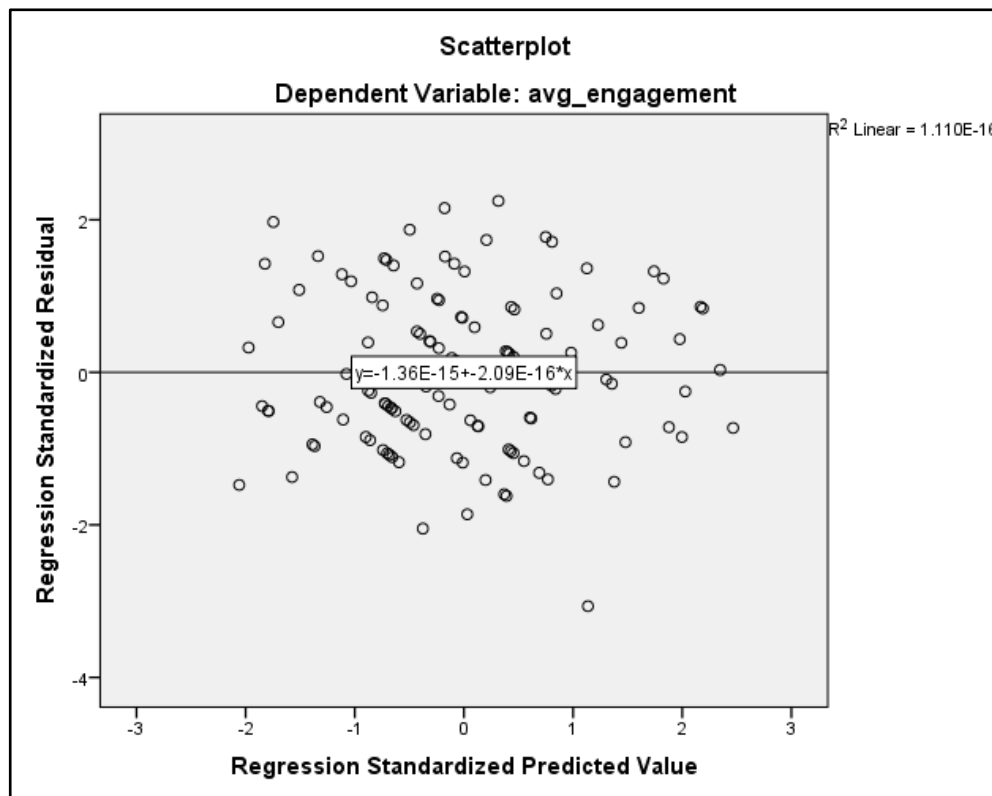
Predictors: (Intercept), Ease of Use, Security, Benefits, Trust, Subjective norm  
Dependent Variable: Engagement

### 4.9.4 Test for variance of residual

The assumption of this test, variations in the residuals is similar at each point across the model. The spread of the residuals can be seen spread fairly constant at each point of the predictor of variable. Therefore, the sample align with the assumption.

**Figure 4.16**

*Variance of residual of engagement*

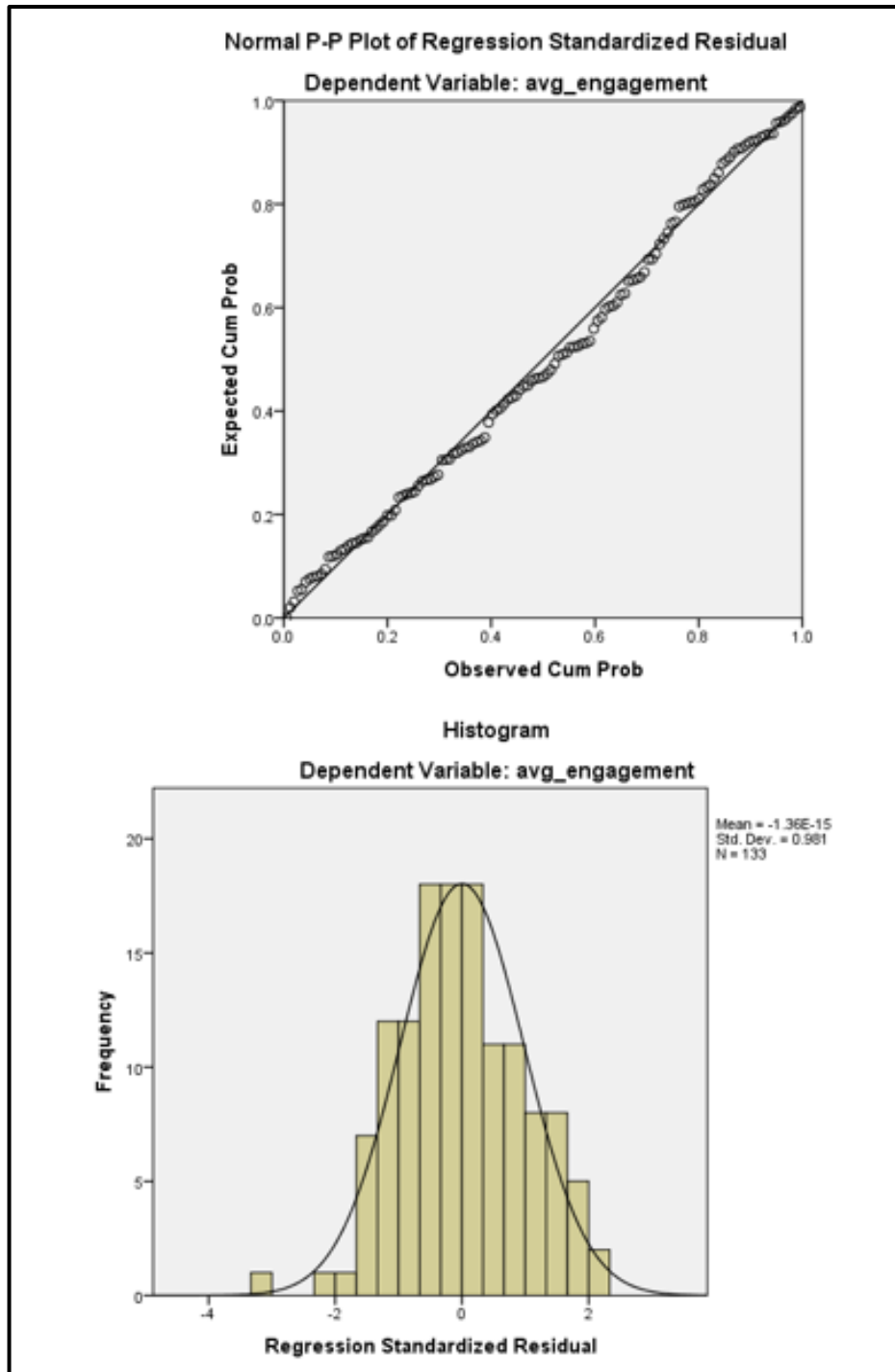


#### 4.9.5 Normal distribution of residual values

Residuals of the variables falls in line. Ensuring the assumption of normal distribution of residual values. The histogram for the residuals also ensures the normal distribution.

**Figure 4.17**

*Distribution of Residuals*



#### 4.9.6 Outlier test

Cook's distance test is used to analyse the inconsistencies of outliers against the remaining data. For the particular test the maximum cook's distance is 0.135 which is below 1. Therefore, the assumption of no influential bias of outliers is assured.

**Table 4.40**

*Test for bias of influencing outliers*

|                                   | Minimum  | Maximum | Mean    | Std. Deviation | N   |
|-----------------------------------|----------|---------|---------|----------------|-----|
| Predicted Value                   | 2.8044   | 4.7712  | 3.7237  | .44258         | 133 |
| Std. Predicted Value              | -2.077   | 2.367   | .000    | 1.000          | 133 |
| Standard Error of Predicted Value | .043     | .145    | .079    | .019           | 133 |
| Adjusted Predicted Value          | 2.8097   | 4.7883  | 3.7243  | .44326         | 133 |
| Residual                          | -1.08826 | .86189  | .00000  | .37615         | 133 |
| Std. Residual                     | -2.838   | 2.248   | .000    | .981           | 133 |
| Stud. Residual                    | -2.965   | 2.263   | -.001   | 1.003          | 133 |
| Deleted Residual                  | -1.18815 | .88795  | -.00066 | .39374         | 133 |
| Stud. Deleted Residual            | -3.061   | 2.301   | .000    | 1.010          | 133 |
| Mahal. Distance                   | .643     | 17.778  | 4.962   | 2.920          | 133 |
| Cook's Distance                   | .000     | .135    | .008    | .014           | 133 |
| Centred Leverage Value            | .005     | .115    | .038    | .022           | 133 |

Dependent Variable: Engagement

#### 4.10 Correlation analysis

The Pearson correlation test analyses the strength and direction of relationship between two variables (pallent, 2020). The commonly accepted values range from -1 to 1 where negative values suggest negative relationship.

**Table 4.41**

*Correlation matrix for variables*

|                 |                     | Benefits | Trust  | Subjective norm | Security | Ease of use |
|-----------------|---------------------|----------|--------|-----------------|----------|-------------|
| Trust           | Pearson Correlation | .441**   |        |                 |          |             |
|                 | Sig. (2-tailed)     | .000     |        |                 |          |             |
|                 | Pearson Correlation | .506**   | .475** |                 |          |             |
| Subjective norm | Sig. (2-tailed)     | .000     | .000   |                 |          |             |
|                 | Pearson Correlation | .353**   | .448** | .393**          |          |             |
|                 | Sig. (2-tailed)     | .000     | .000   | .000            |          |             |

|             |                 |        |        |        |        |        |
|-------------|-----------------|--------|--------|--------|--------|--------|
| Ease of use | Pearson         | .399** | .399** | .386** | .306** |        |
|             | Correlation     |        |        |        |        |        |
|             | Sig. (2-tailed) | .000   | .000   | .000   | .000   |        |
| Engagement  | Pearson         | .570** | .615** | .538** | .462** | .554** |
|             | Correlation     |        |        |        |        |        |
|             | Sig. (2-tailed) | .000   | .000   | .000   | .000   | .000   |

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

Pearson correlation values for independent variables are within .306 to .399 while the correlation values with Dependent variable ranges from .462 to .615. The correlations between variables and among are statistically significant.

#### 4.11 Regression analysis

Regression analysis is a statistical modelling tool used to analyse the relationship between variables (Saunders, Lewis, & Thornhill, 2009). Through regression analysis, the strength of relationship between independent and dependent variable can be examined while testing the overall validity of the model. For the particular study, researcher has used multiple linear regression to analyse the relationships between dependent variable and predictor variables of the model.

**Table 4.42**

*Regression model summary*

| Model | R                 | R Square | Adjusted Square | R Std. Error of the Estimate | Durbin-Watson |
|-------|-------------------|----------|-----------------|------------------------------|---------------|
| 1     | .762 <sup>a</sup> | .581     | .564            | .38348                       | 2.529         |

Predictors: (intercept), Ease of use, Security, Benefits, Trust, Subjective norm

Dependent variable: Engagement

The R square value for the particular study is .581 and the adjusted R square value is .564 with a variance of .017 between significant and non-significant variables. 41.9% of the dependent variable are explained by unidentified error term and 56.4% of the dependent variable is explained by the significant independent variables.

**Table 4.43**

*ANOVA Results*

| Model |            | Sum of Squares | df  | Mean Square | F      | Sig.              |
|-------|------------|----------------|-----|-------------|--------|-------------------|
| 1     | Regression | 24.615         | 5   | 4.923       | 31.389 | .000 <sup>b</sup> |
|       | Residual   | 19.918         | 127 | .157        |        |                   |
|       | Total      | 44.533         | 132 |             |        |                   |

Dependent variable: Engagement

Predictors: (intercept), Ease of use, Security, Benefits, Trust, Subjective norm

According to the Anova results, overall validity of the model and relationship between independent and dependent variable is highly significant.

**Table 4.44***Regression coefficients*

| Model             | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig. | Collinearity Statistics |       |
|-------------------|-----------------------------|------------|---------------------------|-------|------|-------------------------|-------|
|                   | B                           | Std. Error | Beta                      |       |      | Tolerance               | VIF   |
| (Intercept)       | -.105                       | .297       |                           | -.355 | .723 |                         |       |
| Benefits          | .196                        | .061       | .226                      | 3.187 | .002 | .657                    | 1.521 |
| Trust             | .332                        | .081       | .294                      | 4.098 | .000 | .639                    | 1.564 |
| 1 Subjective norm | .133                        | .069       | .139                      | 1.918 | .057 | .632                    | 1.581 |
| Security          | .089                        | .051       | .117                      | 1.748 | .083 | .741                    | 1.349 |
| Ease of use       | .283                        | .073       | .257                      | 3.886 | .000 | .754                    | 1.326 |

Based on the above coefficients table, the values for the coefficients for Benefits, Trust, Subjective norm, Security and Ease of use are 0.196, 0.332, 0.133, 0.089, 0.283 respectively. The value for intercept according to the model is -.105.

The variables Benefits, Trust and Ease of use has significant relationship to the model while the intercept is not significant.

Considering the above data, regression equation for the model can be interpreted as below.

$$EN = -0.105 + 0.196*BE + 0.332*TR + 0.133*SN + 0.089*SE + 0.283*EU + Err$$

Where Err is the error term.

- BE = Benefits
- TR = Trust
- SN = Subjective norm
- SE = Security
- EU = Ease of use

#### 4.12 Summery of hypothesis test, relationship between variables

The study is based on the hypothesis developed for the variables in the conceptual framework. Five hypotheses are used to validate research question and objectives. The validation for the hypotheses is derived based on regression and correlation analysis.

**Table 4.45**

*Relationship between Independent and dependent variable*

| Relationship    |                       | Status   | Justification      |                   |
|-----------------|-----------------------|----------|--------------------|-------------------|
| Benefits        | → Customer engagement | Accepted | R=0.570<br>t=3.187 | P<0.01<br>P=0.002 |
| Trust           | → Customer engagement | Accepted | R=0.615<br>t=4.098 | P<0.01<br>P=0.000 |
| Subjective norm | → Customer engagement | Rejected | R=0.538<br>t=1.918 | P<0.01<br>P=0.057 |
| Security        | → Customer engagement | Rejected | R=0.462<br>t=1.748 | P<0.01<br>P=0.083 |
| Ease of use     | → Customer engagement | Accepted | R=0.554<br>t=3.886 | P<0.01<br>P=0.000 |

## **5. RESEARCH FINDINGS AND CONCLUSION**

### **5.1 Introduction**

This chapter is focused on discussing the research findings based on literature review. Additionally, research questions are answered based on the findings while achieving the research objectives. These findings will be beneficial in bridging the existing practical and theoretical gaps. The theoretical contribution and managerial implications of the study is presented through empirical data and detailed discussions. The interpretations of research findings were based on the sample data collected through the survey.

### **5.2 Findings of the study**

The tested hypotheses of the study were built on factors affecting the customer perception towards e-payment methods when they perform transactions. out of the hypotheses tested, Benefits, Trust and Ease of use were accepted similar to the existing literature.

Customer engagement is a vital important aspect for a business. An engaged customer helps a business grow by retaining, promoting and creating mutual beneficial relationships (T.Rust & J.Zahorik, 1993). Based on literature, customer engagement can be identified by elements such as retention and repurchasing when provided with services and facilities that the customer expects (Hsu, 2023). With the trend of digitalization, customers expect additional platforms when performing transactions. This research also supports, elements such as benefits, ease of use, trust, subjective norm and security of digital payment systems are considered by the users during engagement with businesses. Hence, perception about digital payment systems has an impact towards engagement with a business through digital platforms.

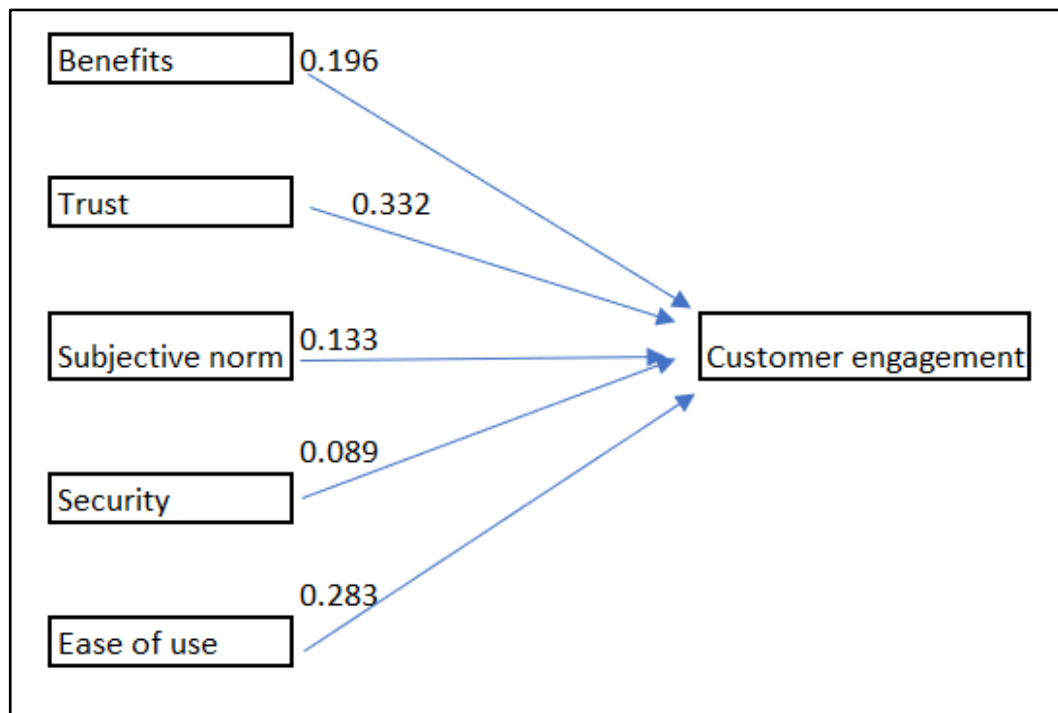
Most customers prefer to engage with SMEs through payment channels other than cash with credit/debit cards been the choice of majority and QR based platform being the second choice for payments. According to figure 19, though the customers are aware of other possible digital payment platforms, choice of majority are the most established payment methods and there exist a knowledge gap for mobile wallet-based payment systems. This finding compliments the study of (Kulathunga & Ekanayake, 2019) emphasizing the rapid adaptation of e-payment systems and the importance of perception about trust on the adaptation and intention to use.

Customers concerns about trust of e-payment systems where low risk, confidentiality of information and privacy having a high significant. Therefore, companies should be focus on concerns of customers on trust. Additionally, convenience provided by digital platforms compared with cash is rated highly by the respondents. The significance of Trust and Benefits on customer adaptation of e-payments emphasized on the research by (Kulathunga & Ekanayake, 2019)is validated through these findings. Business should try to build on customers preference of using alternates methods of performing

transaction to attract customers and to facilitate customer convenience of not to carry cash. Businesses should adapt and train the sales personal to process the e-payment transactions quickly where customers concern about speed is significant. This is supported by the research (Jesuthasan & Jesuthasan, 2021) where the speed and other Benefits of e-payments are identified as significantly influencing factors of e-payment usage. The customers are satisfied with the security provided by the digital payment platforms, elements “having no concerns” and “security than cash” has been rated considerably less and has no significant. Reducing security concerns through addressing the pain points would improve positive perception about E-payments justifying the studies (Kulathunga & Ekanayake, 2019) and (Teoh, Chong, & Lin, 2013) where the security and subjective norm has been found not being significantly affecting the e-payment usage. Customers do not see e-payment as privilege or a social status evident by the fact Subjective norm is a not significant factor affecting engagement.

**Figure 5.1**

*Conceptual model with regression coefficients*



### 5.3 Conclusion and managerial implications

This research examined the impact of Customer perception towards electronic payment methods on engagement with SME sector. SME sector in Sri Lanka is growing rapidly and is expected to increase it’s contribution to nation GDP further. To keep up with the emerging market changes and customer expectations, it is vital that these enterprises evolve and adapt latest technologies in production and customer centric service and value offerings. If not, these enterprises adapt and provide better customer offerings and services, customers can switch with options provided by

competitors and online market channels. Therefore, adapting basic service offerings such as e-payment platforms are vital for survivability and growth while enhancing customer engagement.

This study through empirical data proved Benefits, Trust, Subjective norm, Security and Ease of use are factors affecting the customer perception towards digital payment methods when they engage with SME sector. Customers engagement with a business is important as explained in literature, where engaged customers are of more profitable to a business than finding new customers. The elements of factor engagement; retention, positive word of mouth, satisfaction and repurchase are justified through the empirical data and these engagements can lead to promoting the business to new customers as well. Customer engagement with SMEs through digital platform 58.1% is depended on the perception factors identified and 56.4% of dependance is through significant factors.

Managerial implications provided by the study can be useful to all direct customer-oriented sectors. Improving profitability and growth through sustainable competitive edge are the primary targets of any firm. Measuring customer engagement is essential to achieve this. Higher customer engagements mean better customer satisfaction, customer promoting the business through positive word of mouth, higher profitability through more repurchase and customer retention.

This study examined the relationship between the factors affecting customer perception towards E-payment systems and the factor customer engagement in relation to Sri Lankan SME sector, with based underlined theories. The study examined the impact of 24 elements on engagement with SME sector in Sri Lanka while 4 elements were used to measure the customer engagement levels in relation to the perception factors. The responses gathered illustrates the perception of Sri Lankan customers perception towards digital payment systems.

Based on the study, Security and Subjective norm factors though have a positive relationship are not significant. Improvements in security protocols may have an influence on this. Rapid adaptation of digital payment systems, encouragement and promotion to usage may be the factor for customers not considering it as a social status or privilege.

#### **5.4 Recommendations**

This study has proven that the customer perception about digital payment methods is a predictor of engagement. Positive Perception is a key factor promoting customer engagement with a business. The study identified 24 elements affecting customer perception under 5 factors and the level of engagement differs based on above factors. Managers can improve the level of engagement by addressing and improving on the factors of customers expectation of Benefits, Trust and Ease of use which are the significant factors affecting the engagement.

Customers expect their data provided, stored, and retrieved to be handled with confidentiality, mitigating risks and fraudulent activities. Data security, storing and sharing must be done according to established industry standards. Platform adaptation must be done through recognized institutes where majority of customers can relate. Adapting established and recognized platforms can increase the customer reach and create a positive perception in customer's mind. Having trained staff processing digital payments quickly would increase the speed and efficiency of transaction. The availability and functioning of e-payment depends on having a strong and reliable network connection. Therefore, special emphasis should be given to maintain the availability and connection quality. Additionally, e-payment systems should be flexible and available throughout the operational hours. Businesses should be flexible in allowing different amounts of transactions, allowing wide range of buying behaviors. With collaboration of banking and E-payment service providers, businesses can introduce incentives, discount and easy payment facilities providing more benefits to customer in return increasing engagement. Displaying availability of alternative payment methods and having step by step instructions on the process of making transactions would allow customers to perform their transactions with ease and with confidence. Addressing similar elements affecting the customer perception would increase customer satisfaction resulting in increased repurchase and retention.

### **5.5 Limitations of the study**

This study is focused on electronic payment method usage with SME sector in Sri Lanka. Customer's complex buying behavior change from Industry to industry and culture to culture, limiting the generalizability, implementation and interpretations to other areas.

Elements for the Perception and Engagement factors were selected in relation to SME sector. Customer Engagement factor may be interpreted differently in other areas so the results and factors may not be generalized to all industries.

### **5.6 Future research directions**

This research is focused on digital payment system usage and affecting factors for the Sri Lankan SME sector. These relationships and predictions may change when applied to other industries. The elements considered for perception towards e-payments were chosen based on relationship to SME sector. For other industries the effect of these may be varied. Thus, the model and operational table needs to be adjusted. This study is not focused on a particular SME sector, with the expected development of SME sector in Sri Lanka, future research can focus on how factors can change according to different sectors of SME.

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## APPENDICES

### Section A: General Information

G1. How often do you engage with SMEs?

Daily      Weekly      Occasionally      Rarely      In no option available

G2. What is your choice of payment method when engaging with SMEs?

Cash      Credit/Debit cards      Online Transfer      QR payment      Mobile App wallet

G3. Average transaction amount?

Below 1000      1000-3000      3000-5000      5000-10000      above 10000

G4. Which of these services are you aware and familiar with?

Credit/Debit cards      Online Transfer      QR payment      Mobile App wallet

### Factors affecting to customer perception of electronic payment – Benefits

Rate the below Questions accordingly based on your experience performing transactions with SMEs.

| NO | Question                                                                   | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|----|----------------------------------------------------------------------------|-------------------|----------|---------|-------|----------------|
| B1 | Cost of e-payment is less than cash/Cheque payments?                       |                   |          |         |       |                |
| B2 | Using Electronic payment when performing transactions with SMEs saves time |                   |          |         |       |                |
| B3 | I have the flexibility in performing transactions (amount & time)          |                   |          |         |       |                |
| B4 | Speed of e-payment is faster than traditional payment methods              |                   |          |         |       |                |
| B5 | E-payment methods are convenient for me in performing transactions         |                   |          |         |       |                |

### Factors affecting to customer perception of electronic payment – Trust

Rate the below Questions accordingly based on your experience in performing transactions with SMEs

| NO | Question                                                                                         | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|----|--------------------------------------------------------------------------------------------------|-------------------|----------|---------|-------|----------------|
| T1 | When performing a transaction, I trust the ability of an e-payment system to protect my privacy. |                   |          |         |       |                |

|    |                                                                                                   |
|----|---------------------------------------------------------------------------------------------------|
| T2 | There is no affect to confidentiality of my information when performing an e-payment transaction. |
| T3 | Transaction receipt details are delivered timely and securely to the user by the service provider |
| T4 | I trust e-payment system will not lead to transaction fraud.                                      |
| T5 | I Believe the risk associated with e-payment is low.                                              |

### **Factors affecting to customer perception of electronic payment - Subjective norm**

Rate the below Questions accordingly based on your experience in performing transactions with SMEs

| NO  | Question                                                                            | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|-----|-------------------------------------------------------------------------------------|-------------------|----------|---------|-------|----------------|
| SU1 | Most of my family members and relatives use e-payment methods.                      |                   |          |         |       |                |
| SU2 | Most of my friends use e-payment methods.                                           |                   |          |         |       |                |
| SU3 | They recommend e-payment for paying bills and other transaction.                    |                   |          |         |       |                |
| SU4 | I am happy to say that i use e-payments                                             |                   |          |         |       |                |
| SU5 | I believe Performing e-payment transactions with SMEs improve my status in society. |                   |          |         |       |                |

### **Factors affecting to customer perception of electronic payment – Security**

Rate the below Questions accordingly based on your experience in performing transactions with SMEs

| NO | Question                                                                          | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|----|-----------------------------------------------------------------------------------|-------------------|----------|---------|-------|----------------|
| S1 | I have no concerns about my security when using an e-payment system.              |                   |          |         |       |                |
| S2 | Security of e-payment is greater than traditional payment such as cash or cheque. |                   |          |         |       |                |
| S3 | I feel safe after performing e-payment transaction.                               |                   |          |         |       |                |

|    |                                                                                                          |
|----|----------------------------------------------------------------------------------------------------------|
| S4 | Matters of security have less significant influence on me in using an e- payment transactions with SMEs. |
|----|----------------------------------------------------------------------------------------------------------|

### **Factors affecting to customer perception of electronic payment - Ease of use**

Rate the below Questions accordingly based on your experience in performing transactions with SMEs

| NO | Question                                                             | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|----|----------------------------------------------------------------------|-------------------|----------|---------|-------|----------------|
| E1 | E-payment structure and content are clear easy to understand.        |                   |          |         |       |                |
| E2 | Learning to use an e-payment is easy.                                |                   |          |         |       |                |
| E3 | I have clarified others the process of e-payment transactions.       |                   |          |         |       |                |
| E4 | I have no doubt on process after performing transaction              |                   |          |         |       |                |
| E5 | It is easy for me to perform my transactions using e-payment methods |                   |          |         |       |                |

### **Engagement With SMEs using E-payment methods**

Rate the below Questions accordingly based on your experience in performing transactions with SMEs

| NO  | Question                                                                                                        | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|-----|-----------------------------------------------------------------------------------------------------------------|-------------------|----------|---------|-------|----------------|
| EN1 | I would consider repurchasing from a SME with e-payment system.                                                 |                   |          |         |       |                |
| EN2 | Having e-payment system is more satisfying than traditional payment method in performing transactions with SMEs |                   |          |         |       |                |
| EN3 | I would positively speak about a SME with E-payment facilities to others.                                       |                   |          |         |       |                |
| EN4 | I would continue to perform transactions with a SME with e-payment facilities.                                  |                   |          |         |       |                |

## Demographic data

General information about consumers

### D1. Age

|          |       |       |       |          |
|----------|-------|-------|-------|----------|
| Below 20 | 21-30 | 31-40 | 41-50 | above 50 |
|----------|-------|-------|-------|----------|

### D2. Gender

|      |        |
|------|--------|
| Male | Female |
|------|--------|

### D3. Occupation

|         |          |            |              |         |
|---------|----------|------------|--------------|---------|
| Student | Employee | Unemployed | Entrepreneur | Retired |
|---------|----------|------------|--------------|---------|

### D4. Income Level

|             |              |               |              |
|-------------|--------------|---------------|--------------|
| Below 50000 | 50000-100000 | 100000-150000 | above 150000 |
|-------------|--------------|---------------|--------------|