INSTITUTE OF JOURNALISM

SCHOOL OF GRADUATE STUDIES AND RESEARCH

(SoGSaR)

UNDERSTANDING CUSTOMER BEHAVIOUR IN PAYMENT OF UTILITY BILLS: A CASE STUDY OF THE ELECTRICITY COMPANY OF GHANA LIMITED

BY

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A DISSERTATION SUBMITTED TO THE UNIVERSITY OF MEDIA, ARTS AND COMMUNICATION (UniMAC) IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF A MASTER OF ARTS DEGREE IN STRATEGIC PUBLIC RELATIONS MANAGEMENT

FEBRUARY, 2025

STUDENT'S DECLARATION

I hereby declare that this research is a result of my own original research and that, no part of it has been presented for another degree in this university or any other higher education institute. I further declare that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

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SUPERVISOR'S CERTIFICATION

This Dissertation has been prepared and presented under my supervision according to the guidelines for supervision and formatting of Dissertation laid down by the University of Media, Arts and Communication (UniMAC).

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DEDICATION

To Rev. Joespeh, K. Akpalu and Madam Theresah

ACKNOWLEDGMENTS

I wish to express my deepest gratitude to Dr. Mavis Essandoh, my supervisor, who has exhibited uncommon professionalism during my engagement with her in the conduct of this research work. Mum, may God bless you for your patience, encouragement, and thoroughness, timely feedback that helped to enhance the quality of this work. Your level of expertise and support which were instrumental in the successful completion of this research cannot go without special mention.

I am also grateful to Dr. Usmanu Y. Adamu, Ing. Mrs. Phaney, A. Adiko, Mr. Emmauel Sam for their encouragement, and tenacity of purpose in ensuring that I obtain a Master's degree and in making sure the completion of this research work on schedule. I say, thank you.

To my parents, Rev. Joespeh, K. Akpalu and Madam Theresa Anumah, who have never given up on me but supported me with prayers and words of wisdom, I say may you both live long.

To all who have contributed in one way or the other in my academic journey and towards the completion of work, may God bless you all.

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ABSTRACT

Most utility organizations provide their clients with bundled services. For this reason, issues with billing, payment procedures, meter reading, tariff setting, and other relevant topics are vital to the maintenance and advancement of services provided by electricity utilities. The study examined

examine the understanding customer behaviour in payment of utility bills in Ghana, using the case of the Electricity Company of Ghana (ECG). Therefore, the study seeks to; establish how reliability and flexibility of payment of utility bills influence customer behavior at ECG; determine how convenience of payment of utility bills influence customer behavior at ECG; identify the challenges of the faced by customers of ECG in paying their utility bills, and how can these challenges be addressed to improve payment compliance. Data were gathered using a quantitative approach and cross-sectional research methodology. Data was collected from were some cross-section of customers who patronized products of the Electricity Company of Ghana in the Accra Metropolis, specifically Headquarters in the Accra Metropolis, Mokola, Accra-Central through a convenience sampling technique resulting in a sample size of one hundred (100) respondents. Descriptive statistics were conducted using SPSS software to analyze the data. The results indicate that the payment systems provided by ECG were reliable for consistent and timely transactions and that payment platforms were easily accessible at all times by the consumers. Results from the study found that mobile money services made it convenient to pay consumers ECG utility bills due to the online payment methods provided by ECG which were easy and convenient to use. It was found the cost of utility bills is a major challenge affecting consumers' payment compliance. The study deduced that long queues at ECG payment centers were a significant challenge for consumers and as a result, providing incentives (e.g., discounts for early payments) would encourage them to pay on time. It is recommended that management of the ECG should invest in improving the reliability and usability of digital payment systems, such as mobile money, mobile apps, and online portals. Improving these systems to lower errors and downtime will increase customer trust and encourage wider use. Working with telecom providers is also essential to ensuring that payment systems integrate seamlessly.

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LIST OF ABBREVIATIONS

ATM - Automated Teller Machines

ECG - Electricity Company of Ghana

EDT - Expectation Disconfirmation Theory

SPSS - Statistical Package for the Social Science

TPB - Theory of Planned Behaviour

CHAPTER ONE

INTRODUCTION

1.1 Background and context of the study

The capacity of any business to draw clients and sell its products determines how successful it will be (Al Hafizi & Ali, 2021). A seller must analyze customer behavior patterns and the methods used to persuade those customers to buy products in order to manufacture the right product for the right customer at the right time (Dominici et al., 2021). Customer behavior, as defined by Savelli et al. (2019), is any individual's actions during a product purchase. Knowing what customers want and need is also similar to knowing how they behave (Savelli, et al., 2019). The first and most crucial action any seller takes before delivering goods to the buyer is to analyze customer behavior and the factors influencing it (Savelli, et al., 2019).

Sellers can produce goods that satisfy customer demands and expectations by using buyer behavior to understand buyer purchasing patterns (Hu & Tracogna, 2020). Ultimately, the degree to which a company's customers are satisfied with the services they receive will determine how long it can remain in business (Jamshidi & Kazemi, 2020). Customers' payment patterns for bills will reveal their level of satisfaction with the services they got (Jamshidi & Kazemi, 2020).

Several researches have looked at the payment behavior of customers with bank cards and the underlying factors that affect their choice to use cards (Sinha et al., 2020; Bandara et al., 2021; Taghikhah, 2021). The results indicate that individual customers are primarily affected by three factors worth considering: customer characteristics, payment method characteristics, and transaction characteristics (Ching & Hayashi, 2020). Financial and demographic characteristics of the customer were found to be important variables that could significantly affect how they pay goods and services (Hayashi & Klee, 2018; Klee, 2016). For instance, Arango and Taylor (2019)

observed that the use of debit cards was higher among younger customers while cheques were used by older customers, and credit card use was more common among those with higher education levels. Income-wise, people with lower incomes spent more cash, while those with higher salaries used credit and debit cards extensively. The findings also demonstrated that the choice of payment methods, such as cash, checks, or bank cards, was not significantly influenced by the concern over being financially responsible for paying bills (Arango & Taylor, 2019).

Although studies have shown a relationship between the financial and demographic factors mentioned above and customer payment behavior, some authors most notably Schuh and Stavins (2015) have demonstrated that the acceptance and utilization of payment methods are significantly influenced by perceived payment characteristics. Each payment method has its own distinct qualities, such as acceptance, cost, speed, usability, control, security, and record-keeping (Borzekowski et al., 2016; Ching & Hayashi, 2016).

Transaction speed, for instance, indicates how long it takes a client utilizing a specific payment method to finish a transaction. Data from Borzekowski et al. (2016) indicates that speed is one of the most desired features that affects users' decisions about how much to pay. When customers decide to use bank cards, they typically consider a variety of factors, such as how long it takes to pay with a card at the register or point of sale, or how long the system takes when users withdraw cash from Automated Teller Machines.

Apart from the principal authors mentioned earlier, a number of other authors such as Yi and Nataraajan, (2018); Li et al (2019); Rahi and Ghani (2019) also came to the same conclusion, namely that a customer's payment behavior affects their preference for a specific payment method. The transaction characteristics are therefore very important. Reward incentives and payment size are examples of transaction characteristics (Ching & Hayashi, 2016). Shah et al. (2019) found that

when customers paid with credit cards, they were more likely to select a workable solution and less likely to weigh options to maximize their utility.

In Ghana, prepaid meters were implemented to better generate and collect revenue while concurrently attending to customer concerns. The system was first adopted and put into pilot use for both commercial and residential customers with small electricity consumption between 1994 and 1995, following several years of rigorous testing. Cash power was used to achieve this, especially in certain areas of SSNIT flat, Adenta, and Sakumono in the Greater Accra region, which includes Ghanna, Tema, and Kumasi (Quayson Dadzie, 2015).

The services are currently offered in nearly all major cities and urban areas in municipal and district capitals due to the numerous benefits that the service providers received, including a significant reduction in revenue losses, a sharp curtailment of illegal connections, and even something as minor as energy conservation for the utility provider (Quayson & Dadzie, 2015). Prepaid meters allow customers to purchase and consume power in a manner akin to that of scratch cards, which they can use to recharge their phones.

The system's development has made it possible for customers to use electricity in a comfortable way, and ECG will be able to provide scratch cards to their customers at any point of sale or through their vendors. Once more, ECG will see recurring gains in both operational effectiveness and cash flow management (QuaysonDadzie, 2015). In addition, systems must be implemented in order to succeed (Ogujor & Otasowie, 2015).

1.2 Problem Statement

Gronroos (1984) asserts that most utility organizations provide their clients with bundled services. For this reason, issues with billing, payment procedures, meter reading, tariff setting, and other

relevant topics are vital to the maintenance and advancement of services provided by electricity utilities. There are several unique challenges in identifying customer behavior regarding utility payments (Gafeeva, Hoelzl & Roschk, 2017). Because they see utility bills as a necessary expense rather than as a service that adds value, customers may be reluctant to pay them or may totally put off from doing so (Gafeeva et al., 2017). Paying bills on time can be difficult when one receives unexpectedly large bills and can be annoying (Gafeeva et al., 2017).

Accordingly, customer payment behavior may be impacted by mistrust of utility providers as a result of negative past experiences or the conviction that bills are unjust (Chen et al., 2017). Customers who put off paying bills typically do so out of forgetfulness, procrastination, or a lack of urgency (Farahani et al., 2022). Jia, Hall, and Sun (2014) posited that financial strains, job losses, and economic downturns may impact customers' capacity to make utility bill payments. The authors also mentioned that norms and attitudes regarding debt and bill payment can vary significantly among cultures, which can affect how people behave when making payments.

Customers' utility payment methods may also be influenced by their age, level of education, and other demographic factors (Kumar, Nim & Agarwal, 2021). The authors further indicated that limited accessibility to workable payment options, like online payment gateways or mobile financial transactions, may hinder timely payment. Individuals with limited digital literacy may encounter challenges when utilizing online payment platforms (Lee, 2019). Given this, Liu and Chou (2020) found that customers may be reluctant to use digital payment methods due to a fear of data breaches or the misuse of personal information. There are differences in the views of academics regarding organizational issues. Liu, Wu, and Yu-Buck (2021) posited that complex and confusing billing statements could lead to misunderstandings and disagreements about the amount owed. Liu, Luo, and Zhang (2020) asserted, however, that insufficient customer care can

increase client dispair and cause bill payments to be delayed. They also stressed that customers might encounter problems if there are no flexible payment options or ways to spread out payments over time. Manshad and Brannon (2021) added to the research by highlighting how customers may fail to make payments as a result of utility providers' poor communication about due dates, available payment options, and the repercussions of non-payment.

It is noteworthy that, very few of the numerous studies conducted in this where abroad focus on understanding the utility bill-paying behavior of Ghanaian customers. In fact, it appears there has been no study that specifically address the understanding customer behaviour in payment of utility bills in Ghana. This realization motivates the researcher to conduct research that will close this knowledge gap in understanding customer behavior regarding utility bill payments in Ghana. This lack of knowledge may hinder the development of strategies to improve payments compliance and overall customer satisfaction. Using the Electricity Company of Ghana (ECG) as a case study, the study looks at Ghanaian customer behavior regarding utility bill payment in an effort to address this issue. An exceptional opportunity to examine the payment system and spot patterns and issues that might not be visible from a broader perspective is provided by using the ECG as a case study.

1.3 Research Objectives

The general objective of the study is to examine the understanding customer behaviour in payment of utility bills in Ghana, using the case of the Electricity Company of Ghana (ECG).

Specifically, the study seeks to;

1. Establish how reliability and flexibility of payment of utility bills influence customer behavior at ECG
2. Determine how convenience of payment of utility bills influence customer behavior at ECG.
3. Identify the challenges of the faced by customers of ECG in paying their utility bills, and how can these challenges be addressed to improve payment compliance.

1.4 Research Questions

Given the aforementioned objectives, the following inquiries were addressed by the study's findings:

1. How does reliability and flexibility of payment of utility bills influence customer behavior at ECG?
2. How does convenience of payment of utility bills influence customer behavior at ECG?
3. What are the challenges faced by customers of ECG in paying their utility bills, and how can these challenges be addressed to improve payment compliance?

1.5 Research Methodology

A ross-sectional survey design was used for the study and adopted the quantitative research. The study's target population consisted of ECG Head Office Branch employees and customers. In this study, convenience sampling was the main sampling technique to be employed. These selected respondents who were readily available and willing to take part in the research technique. The data for this investigation was gathered using a standardized questionnaire. Quantitative data was edited by the researcher both on location and internally. SPSS was used in the study's analysis of the updated data. The results were presented and analyzed using descriptive statistics.

1.6 Significance of the study

Understanding customer payment behavior can benefit organizations in a number of significant ways such as enhanced financial performance, customer satisfaction, operational efficiency, and strategic planning are some of these benefits.

1. Knowing when and how customers prefer to pay their bills helps organizations manage working capital and forecast cash flow more accurately. This can help with planning for investment opportunities and liquidity needs.
2. The results of the study would clarify customer preferences for various payment methods, enabling organizations to offer tailored payment choices that boost customer satisfaction and loyalty. Organizations can decrease the frequency of late payments and the risk of bad debt by implementing targeted interventions, such as reminders or flexible payment plans, based on patterns in late payments or defaults.
3. Additionally, by knowing which payment options are the most popular or cost-effective, organizations can streamline their invoicing processes and cut down on transaction fees and other overhead related to bill payment.
4. Organizations can modify their communication tactics according to their customers' payment preferences. For instance, consistent late payers might get educational materials or reminders about the advantages of paying on time, and timely payers might get rewards. Organizations can make sure they are in compliance with applicable regulations, such as those pertaining to payment processing, data privacy, and customer protection, by improving their understanding of payment behaviors.
5. The study's findings would be useful as a guide for researchers looking more closely at the subject matter under consideration. It is envisaged that since Because the study's findings

are applicable to other investigations, the work will serve as a foundation for additional research.

1.7 Scope of the Study

The Electricity Company of Ghana's headquarters in Accra served as the study's within the constraints of time and money. The remaining ten (10) regions were not covered by the study due to scheduling and financial constraints. Since the general concept of examining customer behavior when paying utility bills in ECG is the same for different regional directorates, the results from the Greater Accra Region, which is the capital city of Ghana can be generalized to other regions of the country. Thus, the study was completed in January, 2025.

1.8 Organization of the Study

The study is organized into five main chapters. Chapter One which the introduction of the study encompasses the statement of problem, research objectives, research questions, significance of the study, scope of the study and organization of the study. Chapter Two reviews literature for the study and discusses the underpinning theories. Chapter Three discusses the methodological processes of the study. Chapter four analyses the data gathered provides a discussion on it. focuses on the research methodology. The fourth chapter deals with data analysis and findings of the study, and Chapter Five provides a summary of the entire work and makes recommendations for policies and further research and concludes the study.

1.9 Chapter Summary

With a description of the study, the research problem, and the study's justification, this chapter seeks to introduce the thesis. The goals and aim of the research are described. The study's scope is outlined, and the introduction of the research question and suggested methodology is done. The

remainder of the thesis discussion will be outlined in the following section of the chapter. Therefore, the next chapter review of the study and discusses the underpinning theories.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

This chapter reviews previous studies that other researchers have conducted on the subject. In addition, the review seeks to place the study within a suitable theoretical framework and empirical review by providing a thorough analysis of pertinent literature.

2.2 Theoretical Framework

The theories adopted in this study is Expectation Disconfirmation Theory advanced by Oliver (1980) and The Theory of Planned Behaviour by (Ajzen, 1985)

2.2.1 Expectation Disconfirmation Theory

The fields of social psychology and consumer research were combined to create the Expectation Disconfirmation Theory (EDT). The theory was initially applied in marketing to examine consumer decision-making and satisfaction (Oliver, 1980). A psychological theory called the Expectation Disconfirmation Theory (EDT) assesses people's level of satisfaction by contrasting their expectations with their real experiences. This theory is useful for understanding human behavior in a variety of consumer psychology contexts, where it influences decisions about purchases, brand loyalty, and overall satisfaction, claim Sinha et al. (2020). According to Oliver (1980), the idea that people have preconceived notions about a specific good, service, or experience forms the basis of EDT. These expectations are frequently influenced by a variety of factors, including past experiences, advertisements, word-of-mouth, and personal beliefs (Oliver, 1980).

According to the notion, confirmation occurs when an individual's experience corresponds with their expectations. Satisfaction results from this confirmation. But disconfirmation occurs when the expected experience differs from the real one, and this can have either positive or negative consequences (Sinha et al, 2020). The following three components make up EDT by (Oliver, 1980):

1. Expectations are the preconceived ideas, convictions, or hopes that a person has about a good, service, or encounter. A variety of things, such as advice, marketing materials, prior interactions, and cultural considerations, might have an impact on expectations.

2. Disconfirmation: When someone compares their expectations with what they really experienced, they enter this stage. Confirmation results if the encounter lives up to expectations. Disconfirmation occurs when an experience exceeds or falls short of expectations.

3. Satisfaction or discontent: The discrepancy between expectations and the real experience determines the degree of satisfaction or discontent. Falling short of expectations causes discontent, while meeting or exceeding them leads to satisfaction.

When a person's expectations and their actual experiences line up, confirmation takes place. For example, when someone expects a specific standard of service at a hotel and gets it, it validates their views and makes them happy. When an individual's expectations are exceeded by the actual experience, positive disconfirmation occurs (Sinha et al., 2020). Positive disconfirmation arises when hotel service surpasses expectations, leading to increased satisfaction and possibly a stronger emotional bond with the product or service. Negative disconfirmation, on the other hand, happens when the experience is not up to par. When hotel service falls short of expectations, guests become disappointed and dissatisfied, which can have a negative impact on word-of-mouth and decrease the chance of returning (Sinha et al., 2020).

Expectation disconfirmation theory framed by (Oliver 1980) has focused on the buyers' decision-making procedure, and they are repurchasing a certain service or product in the context of marketing. EDT (Expectation Disconfirmation Theory) is extensively used in consumer behavior studies to understand consumer satisfaction, post-purchase behavior, or post-adoption behavior expectation factors. The EDT is also considered as an intellectual process that describes the

satisfaction or disappointment of a product/service where satisfaction is governed by perceived usefulness and confirmation (Oliver 1980; Alawneh, Al- Refai & Batiha, 2013; Yi & Nataraajan, 2018; Li et al., 2019; Rahi & Ghani, 2019) and leads to continuance intention or repurchase intention of a particular service or a product.

The theory postulates that, consumers evaluate their satisfaction levels by equating their expectations with the quality of product and service experience received and their post evaluative performance and customer satisfaction. This theory can aid businesses in understanding how consumers gauge their satisfaction based on the consistency and calibre of their experience across various channels when it comes to multichannel and omni-channel marketing (Sinha et al., 2020). Customers form expectations based on prior experiences, marketing communication, and word-of-mouth, according to expectation disconfirmation theory. When a customer's experience exceeds their expectations, they feel positive confirmation and satisfaction. When their experience falls short of their expectations, they feel negative disconfirmation and dissatisfaction (Sinha et al., 2020).

2.2.1.1 Relevance of the theory to the Study

EDT becomes a helpful tool for examining how customers' satisfaction or dissatisfaction with payment processes influences their behavior when it is used to analyze utility bill payments. Consumer expectations are shaped by word-of-mouth, advertising campaigns, utility company communications, and past experiences (Oliver 1980). Customers who see a utility company marketing a new online payment system as quick and easy might expect straightforward transactions. The degree of flexibility offered by the payment options, like installment plans or mobile payments, may also raise expectations. Following their use of the payment system, the user evaluates if their expectations were fulfilled. Their perceived performance is influenced by factors

such as system speed, ease of use, transparency in the billing process, and dependability. For example, a customer's perceived performance may be lower than expected when they encounter technical difficulties when making an online payment, which could lead to dissatisfaction (Yi & Nataraajan, 2018; Li et al., 2019; Rahi., & Ghani, 2019).

Customers are more likely to pay their bills on time when they are happy with the way they are paid (Rahi., & Ghani, 2019). On-time payments can be encouraged by positive disconfirmation from convenience. A few instances of this include payment options that can be adjusted and reminders. EDT outlines the rationale behind customers switching between different payment methods (Rahi., & Ghani, 2019). Customers can choose to use more conventional payment options, such as making a payment at a bank or utility office, in the event of a negative disconfirmation in an online payment system. On the other hand, a very effective online payment system might encourage customers to use digital channels (Yi & Nataraajan, 2018).

Utility companies need to be very clear in their marketing, customer service, and communication in order to set reasonable expectations (Sinha et al., 2020). Getting positive disconfirmation may be more difficult if you overpromise and exceed expectations. Utility companies can use online platforms, customer service hotlines, and surveys to collect feedback from customers in order to determine the degree of disconfirmation and address issues that cause dissatisfaction (Sinha et al., 2020). A positive disconfirmation cycle is progressively established as a result of continuous, feedback-driven improvement, raising customer satisfaction (Rahi, & Ghani, 2019). When it comes to comprehending consumer behavior regarding utility bill payments, the Expectation Disconfirmation Theory is extremely pertinent. It illustrates how timely payments, loyalty, and general utility service satisfaction are all impacted by a customer's satisfaction with the payment process (Sinha et al, 2020). Utilities can provide better customer service and encourage responsible

payment practices by controlling expectations, enhancing perceived performance, and resolving disconfirmation (Sinha et al, 2020).

2.2.2 The Theory of Planned Behaviour

In 1985, Ajzen came up with a theory stating that human behavior is a function of behavioural intentions (Ajzen, 2012). The theory of planned behavior was developed as rebranded theory from theory of information integration and reasoned action theory (Ajzen, 2012). While theory of information integration as developed in 1971 by Norman Anderson propounded that individual behavior emanated from evaluation of all sources of information in terms of value and weight and combining such in taking actions. Fishbein and Ajzen in 1980 expanded the information integration theory to propound reasoned action theory (Ajzen, 2012). They opined that behavioural intention is a driver of specific traits exhibited by individuals, and that the behavioural intention is sharpened by individual private opinion, perceived expectation of the third parties and ability to impress third parties due to social pressure as well as the potential to tame its behavior in specific actions (Ajzen, 2012).

In the process of redefining the theory of reasoned action theory, Ajzen (1985) developed theory of planned behavior. Ajzen (1985) added that the three factors influencing individual intention to act in a specific way is driven by the background (individually, socially and on information availability). The key factors influencing behavioural intention as addressed in reasoned action theory are individual opinion, subjective and normative beliefs, and ability of the individual to tame his behavior (Caputo, 2020). Besides, these factors are subjected to personal, social and information background. Individual factors include the mood, emotions, values, stereotypes, general attitudes, perceived risk, and past behavior (Caputo, 2020). Social, education, age, gender, income, religion, race, ethnicity and culture are looked into as factors driving the behavioural

intention, while the level of exposure to knowledge, media and intervention are considered as the informational background (La Barbera & Ajzen, 2020).

The Theory of Planned Behaviour claims, at its heart, that an individual's intention to do a behaviour is the most direct determinant of that conduct. This intention is determined by three key factors (Sok et al., 2020):

1. Attitude: An individual's positive or negative appraisal of executing a given behaviour. It includes beliefs about the results of actions as well as the value the person sets on these outcomes (Sok et al., 2020).
2. Subjective Norms: This component refers to the perceived social pressure or influence that individuals experience from significant others, such as friends, family, or society in general. It takes into account the social expectations of the action as well as the person's incentive to conform to these expectations (Sok et al., 2020)
3. Perceived Behavioural Control: This refers to an individual's belief in their own ability to do the behaviour. It entails assessing one's own capabilities, resources, and external influences that may help or impede behavior (Canova & Manganelli, 2020).

These three component are attitude, subjective norms, and perceived behavioural control, all work together to shape an individual's behavioural intention (Sok et al., 2020). The stronger the intention to engage in an action, the more probable the behaviour would occur, according to the hypothesis. The degree to which a person perceives that they have control over their conduct is referred to as perceived behavioural control (Canova & Manganelli, 2020). This means that businesses must comprehend how customers perceive behavioural control over choosing which channels to use to engage with a company in the context of multichannel and omni-channel marketing (Sok et al., 2020). Customers may have low perceived behavioural control when using a chatbot if they believe

it to be unreliable or difficult to use, but high perceived behavioural control when using email if they are comfortable and secure using the channel (Sok et al., 2020).

By understanding Theory of Planned Behaviour, organizations can design and execute multichannel and omni-channel strategies that address customers' perceived behavioural control to increase adoption and satisfaction (Caputo, 2020)). This may entail enhancing the usability and dependability of new channels, offering customers training and assistance so they can use new channels efficiently, and utilizing the behaviour and preferences of current customers to promote new channels (Willis et al., 2020). Overall, TPB can help companies better understand customers' decision-making about using various channels to interact with a company and design multichannel and omni-channel strategies that suit their needs and preferences, leading to greater satisfaction and loyalty (Caputo, 2020).

2.2.2.1 Relevance of the theory to the Study

TPB offers an extensive framework for comprehending how customers behave when it comes to paying their utility bills (Willis et al., 2020). Every part of the theory provides information about the variables affecting payments that are made on time, after the deadline, or not at all. Consumer views regarding paying utility bills are influenced by their perceptions, experiences, and beliefs. Customers will be more accommodating when it comes to making on-time payments, for instance, if they see paying their utility bills as a requirement that guarantees continuous service (Caputo, 2020). Positive sentiments may also exist if people think the payment procedure is clear-cut, rational, and simple to understand (La Barbera & Ajzen, 2020).

Customers may become irrational if they believe they are being overcharged or that their utility bills are excessively high (La Barbera & Ajzen, 2020). Similarly, the probability of making on-

time bill payments is likely to decrease if the payment process is viewed as challenging or inconvenient (for example, because of restricted payment options or questionable online payment systems) (Caputo, 2020). With a variety of payment options, enhanced customer support, and transparent billing, utilities can use this insight to improve customer sentiment. One's intention to pay bills on time can be increased by maintaining a positive outlook (Caputo, 2020).

TPB suggest that, behavioral intention takes precedence over actual behavior (La Barbera & Ajzen, 2020). This implies that customers are more likely to follow through and make on-time payments if they have a strong intention to pay their utility bills (shaped by positive attitudes, favorable subjective norms, and high perceived control). Customers are more likely to form a strong intention to pay their utility bills when attitudes, norms, and control all align in a positive manner (La Barbera & Ajzen, 2020). Payments are thus consistently and punctually made. If any of the three factors are out of favor, clients might not be as motivated to pay their bills, which could lead to delays or non-payments (e.g., a bad attitude because they do not like how transparent their billing is, or a low sense of control because there aren't enough options for them to pay) (Willis et al., 2020; La Barbera & Ajzen, 2020).

Utility companies that address each TPB component can promote strong behavioral intentions (Willis et al., 2020). They can, for instance, improve attitudes by providing open billing, increase perceived control by accelerating and simplifying the payment process, and strengthen social norms by getting involved in the community (Willis et al., 2020). When it comes to comprehending consumer behavior regarding utility bill payments, the Theory of Planned Behavior is highly pertinent. It explains how customers' intentions and payment-related behaviors are influenced by their attitudes, social influences, and sense of control (La Barbera & Ajzen, 2020). Utility companies can encourage more resolute intentions to pay bills on time by addressing these

problems, which will result in more consistent payment behavior and better financial outcomes for both customers and businesses (Willis et al., 2020).

2.3 CONCEPTUAL REVIEW

2.3.1 Consumer Behavior

Consumer behavior is referred to all the activities of individuals, groups or organizations in searching for, purchasing, using and assessing of products or services, including the consumers' emotional, mental, as well as behavior responses that precede, determine, or follow these activities (Kardes, et al., 2018). Solomon et al. (2016) define consumer behavior as the decisions and actions that people and households take when they search for, evaluate, buy, use, and then discard products using the resources that are currently available to them, such as money, time, or effort. In other words, it entails all the activities of the consumers as well as the underlying motivations associated with those actions (Solomon et al., 2016). The field of consumer behavior is therefore the study of the process of how individual consumers or groups select, purchase, use and dispose ideas, products, services or experiences that fulfill customers' needs and desires (Solomon et al., 2016).

2.3.2 Factors Influencing Consumer Behaviour

Consumer behaviour is the actions that make decisions made by individuals in the process of buying like selecting, purchasing, and using goods (Kotler & Armstrong, 2017). There are several factors that influence consumer behaviour called regulating internal factors such as demographics, attitudes, beliefs, and lifestyle, and external regulating factors such as social, cultural, economic, and technological factors (Kotler & Armstrong 2017). These factors are changeable and different for every person, making every customer's thinking and choices different. Consumer buyer behaviour are significantly influenced by internal and external factors where the major ones are cultural, social, personal, and psychological (Khaniwale 2015).

Also, the influencing factors have a distinction on environments. These internal and external influences have completely different environments. There are some few internal fixed demographics that effect consumer behaviour. Those are personality, lifestyle, occupation, economic situation, and age (Kotler & Armstrong, 2017). Gender differences affect consumer behavior, which is an important consideration when making a purchase, because men and women have different values, attitudes, and buying habits (Solomon, 2016). Also, different research says that men and women prefer different product details such as packaging attribute, colour, and functionality that influences perception and buying decisions.

2.4 Factors affecting Consumer Behavior for Using Payment of Utility Bills

Over the decades, there have been dozens of studies that investigate consumer behavior towards the use of payment of utility bills, together with the fundamental motives influencing card payment of utility bills choice amongst consumers (Ching & Hayashi, 2016). The results have showed that individual consumers are mostly effected by three main groups of factors worth considering, which are consumer characteristics, payment method characteristics and transaction characteristics (Ching & Hayashi, 2016).

2.4.1 Consumer characteristics

Consumer characteristics which are demographic and financial attributes were found to be fundamental determinants that potentially have a great influence on payment behavior of consumers (Hayashi & Klee, 2015; Klee, 2016; Zinman, 2018). Another research by Schuh and Stavins (2017) also asserted that the effect of those components is consistent with preceding studies. Demographic variables include age, gender, education, income, race, marital status, etc. For example, Arango and Taylor (2019); Schuh and Stavins (2017), pointed out that while younger customers were associated with the use of more debit cards, the older used more checks; and the

better-educated people tended to use credit cards. In regards to income, people with low income spent more cash; in contrast, those with higher salary used debit and credit cards intensively. It was found that the matter of having financial responsibility for paying bills did not considerably influence the choice of payment methods, such as cash, checks or payment bank cards.

2.4.2 Payment method characteristics

Although the aforementioned demographic and financial variables have been found to be correlated to consumer payment behavior, some authors, notably Schuh and Stavins (2017) identified that the perceived characteristics of payment are of crucial importance for both the adoption and the use of payment method. Each payment instrument carries with it some exclusive attributes, such as transaction speed, cost, convenience, security, restraint, records keeping and acceptance (Borzekowski et al., 2016; Ching & Hayashi, 2016; Schuh & Stavins, 2017). Accordingly, each attribute of payment instrument will be discussed in terms of payment card as follows:

2.4.2.1. Transaction speed

Transaction speed is referred to the time a certain payment method takes for customers to perform a payment transaction (Arango & Taylor (2019). Borzekowski et al. (2016) provided evidence that a preference for speed is amongst the most desired features that drive the payment choice of users. For instance, the time that card payment takes at the check-out counters/point of sales, or the time the system consumes when customers withdraw the money from Automated Teller Machines (ATM) is typically taken into consideration to customers' choice of using bank cards.

2.4.2.2. Cost

Cost includes service fees, interest paid or lost, penalties, subscriptions or materials (Borzekowski et al., 2016). It is obvious that customers who are using payment bank card services have to pay for some certain fees such as per-transaction cost and monthly, term or annual fees depending on

regulations of each bank. Furthermore, for the users of credit cards, they must pay their credit balance in full by the due day; otherwise, the interest on the charge starts immediately. Previous research has established that cost substantially contributes to the choice of payment methods (Borzekowski et al., 2016; Schuh & Stavins, 2017). Cost is therefore significant both in adoption as well as in use of bank cards.

2.4.2.3. Convenience

Schuh and Stavins (2017) mentioned that, convenience is regarded to the degree to which people can save time, effort to carry, or ability to keep or store, or do some physical requirements at the time of payment. In their study, convenience driver was statistically demonstrated to be associated to the consumer choice of card usage. This view is also reinforced by Borzekowski et al. (2016), in their empirical paper, convenience is overwhelmingly cited as a main reason for using debit cards. Additionally, the convenience in consumers' use of bank cards was specifically investigated in the study by (Arango & Taylor, 2019). These authors found that consumers perceiving bank cards to be more convenient and less risky than cash use them more frequently and consumers substantially shift away from cash and towards alternative payment methods (Arango & Taylor, 2019).

2.4.2.4. Security

Security is defined as Security against permanent financial loss or wanted disclosure of personal information when a payment method has been stolen, misused or accessed without the owner's permission (Schuh & Stavins, 2017). Based upon the research by Zinman (2018), the improved security was a significant proximate of recent growth of debit card users. Security is, in fact, of crucial importance in explaining the payment methods that customers choose to do transactions. For many, in this age of advanced technology, they would prefer holding bank cards due to the prevention of theft, robbery, loss, or counterfeit money (Zinman, 2018).

On the other hand, others are still fond of spending by cash instead of cards as they are afraid of disclosing personal information, and exposing risks of fraud activities when the cards are lost or stolen (Zinman, 2018). Customers, however, would mostly feel secure and put their mind at ease because they are always protected by liability agreements with card issuers and merchants when these problems happen (Zinman, 2018). Furthermore, the concern of security was emphasized in the research by Schuh and Stavins (2017) who concluded that people seeing the payment method as relatively more secure are more likely to adopt it and vice versa. Security is, therefore, vital when it comes to understanding the consumer behavior for using payment bank cards.

2.4.2.5. Restraint and Records Keeping

Payment card adoption was also affected by the characteristics of restraint which is a desire to limit and control overspending, and record keeping that is an ability to track and record purchases (Foster & Greene, 2021; Schuh & Stavins, 2017). As a matter of fact, by using payment bank card services, cardholders can easily keep track of their expenses, the actual payment as well as deduction of funds from their bank accounts over the time in order better to avoid overspending. Moreover, additional information such as time and date of payment or where the payments made is also shown in transactions record which might help the users to control and manage their account (Stavins, 2018). Particularly, in case of credit card users, the feature of record keeping can potentially help in building credit history that would bring benefits for customers. Results of the 2006 survey regressions found that the effect of record keeping was strong for credit and debit cards although the coefficient is quite negative for debit (Schuh & Stavins, 2017). Hence, these characteristics of restraint and record keeping would be potentially favored by card users, and definitely significantly affect the choice of payment instruments.

2.4.2.6. Acceptance

Schuh and Stavins (2017) defined acceptance as how likely each payment method is to be accepted for payment by stores, companies, online merchants, and other people or organizations. In fact, the effect of acceptance has a strong influence on the card usage. To be more specific, it is usually seen that for some retail stores or departments, only cash is accepted. This could be seen more clearly in some Asian countries, such as Vietnam, where the payment bank cards have not been used extensively and widely as expected; and there has been a limited number of Automated Teller Machines and Point of Sales units. These disadvantages are therefore barriers that partially prevent customers' choice of card payments (Zhou et al., 2018).

Several previous empirical papers have proved the influence of physical environment, namely the availability of card payment acceptance at Point of Sales, on payment method choices of whether or not using bank cards (Zhou et al., 2018). Specifically, Bolt et al. (2008) investigated the difference in payment instrument use between Norway and The Netherlands and eventually concluded that due to the fact that Norway started with more payment terminals than the Netherlands, thus leading to the higher point of card usage on the growth curve (Singh, & Singh, 2017).

2.4.3 Transaction characteristics

Aside from the main contributors above, several authors concluded that customer's choice of payment methods is also derived from their use in transactions. Therefore, the transaction characteristics are of high importance. The transaction characteristics include reward incentives and payment size (Bounie & François, 2016; Ching & Hayashi, 2016).

2.4.3.1. Reward incentives

As a leading strategic way, in order to propel the growth of payment card usage, banks usually offer reward programs to their customers, such as gifts, discounts, coupons or accumulated points for special offers (Zhou et al., 2018). Specifically, for instance, by doing card payments Point of Sales or Automated Teller Machines (ATM), customers are capable of saving certain points to their credit history; and in the end, when the total value of transactions reaches a certain level set by bank, they will receive some special offers.

Ching and Hayashi (2016) suggested that consumers who are granted credit card rewards use credit cards much more extensively than those who are not, and reward card transactions are inclined to replace both paper-based and non-reward card transactions. Furthermore, Carbó-Valverde and Liñares-Zegarra (2011) also emphasized the importance of rewards by saying that reward programs significantly affect the preferences for cards relative to cash payment and that the marginal effect of these programs is the highest among the posited set of explanatory factors. Due to this feature, it can be said that reward could be a good predictor for the preferences of different payment methods.

2.4.3.2. Payment size

Payment size which is explained as a value of each transaction is shown to be a concerned determinant to the payment choice of consumers (Ching & Hayashi, 2016). It is likely that consumers have a tendency of spending cash for small value payments; whereas larger value transactions are conducted by payment bank cards. Bounie and François (2016) also affirmed on this point of view that the transaction size influences the probability of a transaction being paid by one of three payment instruments, namely cash, check and bank cards, and that the larger a transaction, the higher the probability of it being paid by check or bank cards.

2.5 Billing Issues and Payment Behavior

In spite of the low-income levels in developing countries, cost recovery is a prerequisite for the sustainability of electricity utilities. It is argued that, by 2015, 88 per cent of the global population will reside in urban centres (UNICEF, 2015). These newly developed urban centres are likely to pose a daunting challenge to the electricity utilities both in terms of service provision and cost recovery. The bill payment and collection efficiency to support adequate service provision are generally very poor in developing countries. For instance, Kayaga et al. (2014) argued that the bill collection efficiency, which is often referred to as the headline efficiency2, in African urban electricity utilities is lower than 50 per cent. This situation is quite representative of a rather gloomy picture of other African utilities as well. An effective billing and payment mechanism may therefore help improve the cost recovery levels of these utilities (Zhou et al., 2016).

Chipofya et al. (2019) argued that utilities do not achieve efficiency in billing because (i) bill packages fail to establish the customer base, (ii) bills delivery is irregular, often resulting in non-payment by registered consumers especially in slum areas, (iii) there are incidences of undercharging and overcharging due to billing errors, creating dissatisfaction among consumers and (iv) ineffectiveness of the billing system. They suggest that utilities should explore opportunities to hand deliver bills during meter reading and also outsource meter reading to subsidiary companies. Therefore, electricity utilities must focus on improving bill presentments instead of concentrating too much only on power generation and distribution in order to achieve better customers' bill payment behavior (Zhou et al., 2016).

Ogujor and Otasowie (2016) argued that prepaid system ensures adequate and proper billing of customers. Under the prepaid system there is no debt accumulation. The dependence on huge material and human resources needed for disconnection and reconnection is avoided. In addition,

the prepaid system may help to reduce the danger and inconveniences associated with such disconnection and reconnection. Ironically, in some jurisdictions, regulators and consumer advocates have expressed concerns that utilities might impose prepaid system on customers in low income areas, thus stigmatizing customers whose positive history of bill payment may equal or frequently exceed that of their wealthier neighbors (Ang, Wei, & Arli, 2021). Consistent with this line of argument, Oracle (2019) suggested that most consumers are not in favour of the prepaid system because of its cost, fairness and health and safety concerns.

Most utility companies provide bundle of services to their clients (Sun and Xing, 2022) and the electricity utility is no exception. Hence, issues relating to tariff setting, meter reading, billing, and payment options form an important part of facilitating and support services for electricity utilities. In an exploratory study of five small urban electricity utilities in Uganda, Mugabi, Kayaga, and Smout (2017) identify that bill delivery, dependability or correctness of meter reading and bills, clarity of bills, flexibility, and choice in payment options are among the main factors that customers believe to be the facilitators of, or barriers to, timely payment of their electricity bills. These issues, which we may collectively term as the billing issues, if not managed properly, may easily add to customer dissatisfaction and eventually lead to more delayed payments (or outright non-payments) and poorer revenue performance for the utility.

Chipofya, Hoko, and Gustaff (2019) argued that utilities do not achieve efficiency in billing because they do not employ appropriate billing practices. If so, then one could argue that it is the reason for the abysmal bill payment on the part of consumers (Sualihu & Rahman, 2014). In addition to behavioral and institutional constructs such as those reviewed in the preceding paragraphs, Mugabi et al. (2017) and (Kayaga, Calvert, & Sansom, 2014; Waldron, 2014) argued

that some other institutional factors, namely, transaction time of customers at the bill payment points and monitoring and control measures on the part of water utilities, may also play critical independent roles in determining customers' satisfaction level and their bill payment behavior. For example, a reduction in the transaction time at bill collection centers is likely to increase customers' satisfaction levels and encourage water utility clientele to pay off their bills on time.

Sualihu and Rahman (2014) find that a reduction in transaction time at bill collection centers does not only increase the satisfaction level of customers but also reduces the number of days it takes utility customers, on average, to pay off their bills after presentment. Furthermore, it is also argued that if utility companies' step-up their monitoring and control roles, they are likely to detect faults such as metering errors and burst pipes, and fix them on time (Waldron, 2017). This would not only increase the level of customer satisfaction toward the water utility but also reduce the unusual delays in customers' bill payment. Therefore, transaction time and monitoring and control are more likely to negatively influence bill payment behavior.

2.6 Empirical Review

The study by Kamran et al. (2021) examined the impact of trust in utility providers on Pakistan's electrical industry, focusing on consumer behavior, service satisfaction, and overall performance in the sector. The study aimed to investigate the role of trust in utility providers in shaping consumer perceptions and behaviors in Pakistan's electrical industry. It specifically sought to understand how trust influences customer satisfaction, loyalty, and compliance with utility service regulations. The research was conducted across various regions of Pakistan, focusing on consumers who rely on the country's major electricity providers. The study targeted urban and semi-urban areas where access to electricity and interaction with utility services are more structured. The study analyzed Pakistan's main electricity suppliers, their customer service

practices, and service delivery standards. The study employed a quantitative research method, using surveys and questionnaires distributed to a sample of residential consumers across the selected regions. The study found that trust in utility providers was a significant determinant of customer satisfaction and loyalty. Consumers who trusted their electricity providers were more likely to be satisfied with the service, despite issues such as frequent power outages. The study recommended that utility providers improve communication with consumers to build trust. Transparent billing systems, prompt responses to outages, and regular updates on service improvements were suggested as ways to enhance consumer trust.

Lawrence and Weber (2020) investigated the effects of income inequality on utility bill payments in American cities. The study's main aim was to evaluate the connection between utility bill payment patterns and income inequality, with an emphasis on how income differences impact households' capacity to pay for necessities and the wider ramifications for utility companies and policymakers. The study was conducted across several major American cities, with a particular focus on urban areas with high levels of income inequality, such as New York, Los Angeles, Chicago, and Houston. The cities were chosen to represent a range of economic conditions and income distributions. These were a primary focus since they are disproportionately affected by income inequality. The study also looked at how rising inequality impacted this group's ability to pay utility bills. The research examined how utility providers are affected by increasing payment delinquencies and service disconnections. They employed a mixed-methods approach, combining quantitative data analysis with qualitative interviews They discovered that because of financial hardships, low-income households are more likely to forget or postpone their utility payments. The study recommended expanding utility assistance programs for lower-income households to prevent service disconnections and long-term financial instability. The present study underscores

the significance of financial assistance programs and affordability in enhancing the payment practices of low-income households.

The study by Gaur et al. (2015) investigated the effects of household size and income on payment practices in the electricity sector in India. The primary aim of the study was to explore how household size and income levels influenced the payment behaviors of electricity consumers in India. The research sought to understand whether these socio-economic factors affected how consistently households paid their electricity bills, as well as any difficulties they faced in making timely payments. The study was conducted in India, focusing on a variety of urban and rural settings to capture the diverse economic and household dynamics that exist in the country. India was selected as the study site due to its vast population, varying income levels, and the challenges faced by utility companies in ensuring consistent bill payments. mall and large households were analyzed to understand how the number of individuals in a household affected electricity payment practices. The research employed a quantitative survey-based approach. Data was collected through household surveys, where information on household size, income, and payment practices was gathered. The study discovered that larger, higher-income households were more dependable at paying their bills on time, while smaller, lower-income households had higher rates of delinquency. The author arrived at the conclusion that a customer's payment habits are significantly influenced by their socioeconomic status**.**

The study by Khandker et al. (2012) aimed to explore the impact of government utility subsidies on lower-income households, particularly focusing on their financial burden and compliance rates with bill payments. The main goal was to assess whether government subsidies for utility services, such as electricity, could alleviate financial pressure on lower-income households, and in turn, increase their willingness and ability to comply with bill payments. The study was conducted in

developing countries, where utility bill payments often represent a significant proportion of household income. Although the study draws from multiple case studies, its analysis is frequently centered on South Asia, where energy access and affordability are crucial issues. These were the primary focus of the study. The research aimed to understand how these households were affected by the financial burden of utility bills and whether subsidies helped them. The research used a combination of quantitative and qualitative methods, including household surveys, interviews, and the analysis of utility payment records. Khandker et al. (2012) said, lower-income households reported feeling less financially burdened as a result of government utility subsidies, which increased their compliance rates with bill payments. The researchers stressed that well-thought-out subsidy programs can help low-income customers while safeguarding the financial stability of utility companies. The study recommended that governments should continue and even expand targeted subsidy programs for essential services, particularly for the most financially vulnerable households

Zhou et al. (2017) investigated the effects of online and mobile payment systems on utility payments in China. The primary aim of the study was to assess the effects of online and mobile payment systems on utility payments in China, examining the extent to which these payment innovations improve convenience, customer satisfaction, and efficiency in paying for utilities such as electricity, water, and gas. The study was conducted across various cities in China, including major urban areas like Beijing, Shanghai, and Guangzhou, where the adoption of online and mobile payment systems is widespread. The research focused on areas with significant use of mobile and online payments due to the prevalence of digital payment infrastructure. The study involved three main groups: individuals who regularly pay utility bills and have adopted or are considering adopting online or mobile payment systems; companies offering electricity, water, and gas services, focusing on how they integrate and manage online/mobile payment options; and

companies such as Alipay and WeChat Pay, which provide platforms for processing online and mobile transactions. The researchers used a quantitative research approach, collecting data through surveys and transaction records. They discovered that because digital payment options cut down on the time and effort needed for payments, customers who had access to them were more likely to pay their bills on schedule. The study also showed how government-sponsored online platform usage incentives improved on-time payments across various income levels**.** The researchers recommended enhancing digital infrastructure in rural areas to promote the use of online and mobile payment systems, which could improve utility payment efficiency for a broader population.

Brunekreeft et al. (2014) conducted a study on unbundling of electricity transmission system operators in Germany –an experience report with the aim of evaluating the impact of vertical unbundling on German electric utilities. The study focused on assessing the separation of electricity transmission from generation and distribution functions, a process that was initiated to foster competition, transparency, and efficiency in the energy sector. The study used in-depth interviews with sector-experts from the German utilities as method of data collection instrument. The findings found that the major step in the unbundling process is from "lean legal unbundling" to "fat legal unbundling"; additional steps beyond that are small, both in benefits and in costs. They also found that the benefits of unbundling in terms of increased competition do not come for free: unbundling is costly and it is important to balance cost and benefits in the reform process. Despite these challenges, the report concluded that unbundling contributed to a more transparent and competitive market environment, though the long-term effects on pricing and investment were still evolving at the time of the study.

Mweene and Chikumbi (2019) used the Expectation Disconfirmation Theory in a study conducted in Zambia to look at how customer dissatisfaction with electricity services affects payment

behavior. The primary aim of the study was to investigate the relationship between customer dissatisfaction with electricity services and how it influences their behavior regarding bill payments. Specifically, the research explored how unmet expectations regarding electricity service delivery lead to customer dissatisfaction, which, in turn, impacts the willingness or reluctance of customers to pay their electricity bills on time. The key groups involved in the study were households that rely on electricity for daily activities. The study adopted a quantitative research approach, utilizing structured questionnaires to collect data from the participants. The study found that many customers had high expectations of reliable electricity supply, but these expectations were frequently unmet due to persistent power outages, poor customer service, and billing errors. This led to dissatisfaction. The authors came to the conclusion that bad disconfirmation resulted from utility companies' failure to live up to customer expectations, especially when it came to dependability and transparency, which in turn caused late or nonexistent payments. The study recommended that ZESCO and other electricity providers should improve service reliability to meet customer expectations, especially by addressing frequent power outages and ensuring consistent supply.

Ali et al. (2018) looked into Nigerian customers' intentions to pay their electricity bills using the Theory of Planned Behavior. The study aim was to understand the key factors that influence Nigerian customers’ intentions to pay their electricity bills. The study focused on identifying how attitudes toward bill payment, subjective norms, and perceived behavioral control (the three core components of the (TPB) influence customers' willingness to comply with electricity payment obligations. The study was conducted in Nigeria, a country that has faced challenges with electricity supply, billing systems, and customer compliance with bill payment. The research targeted electricity consumers across various sectors in urban and semi-urban areas. Nigerian households, particularly in urban settings, who consume electricity and are responsible for paying

utility bills. Ali et al. employed a quantitative research approach, collecting data through structured questionnaires based on the Theory of Planned Behavior (TPB) constructs. The study found that attitudes toward the utility company, perceptions of control over payment options, and subjective norms (like peer and familial pressure) all significantly influenced payment behavior. The authors stressed the importance of providing easy access to payment channels in order to boost customers' perceived control and, as a result, payment compliance.

In their study on utility payment behavior in Ghana, Agyekum et al. (2020) discovered that the ease of use of mobile money payment systems led to a rise in on-time payments for electricity bills. The main objective of the study was to explore the impact of mobile money payment systems on the behavior of utility customers, specifically in relation to paying electricity bills on time. The study sought to evaluate whether the ease of use of these digital platforms increased efficiency and customer compliance with payment deadlines. The study was conducted in Ghana, a country where mobile money platforms have rapidly expanded in recent years, becoming a popular alternative for financial transactions, including utility payments. The research involved various groups, with a focus on electricity consumers in urban and semi-urban areas who had access to mobile money services. Agyekum et al. (2020) used a mixed-method approach that combined both quantitative and qualitative research methods. Surveys were distributed to a representative sample of electricity consumers to collect data on their payment habits, preferences, and perceptions of mobile money systems. In addition, interviews were conducted with key stakeholders in the electricity and financial services sectors to gain insights into the operational and technical aspects of mobile money payments. The study found that the simplicity and convenience of mobile money payment systems significantly contributed to an increase in on-time payments for electricity bills. Consumers appreciated the accessibility of mobile money platforms, which enabled them to pay their bills without the need for physical presence at a payment center. The study also found that,

because of limited internet access, consumers in rural areas continued to rely on conventional methods like in-person payments, while those in urban areas were more likely to use digital payment methods. The study recommended that the Electricity Company of Ghana and mobile service providers should enhance user education and awareness campaigns, especially targeting groups that face challenges with technology.

2.6 Chapter Summary

This chapter offers a thorough analysis of the body of research on consumer behavior in relation to utility bill payments. It combines the results of several studies to pinpoint the main elements affecting consumer choices, preferred methods of payment, and general satisfaction. Age, income, and educational attainment have been shown to have a substantial influence on payment behavior. While older generations may prefer traditional payment methods, younger customers are more likely to favor digital ones. Customer preferences differ, and there are numerous payment options available, such as online, mobile, and in-person payments. Consumer choice is greatly influenced by the ease and security of payment options. Many studies have been conducted on the role that technology plays in enabling payments. With a major shift towards online transactions, digital platforms and mobile applications have completely changed how consumers handle and pay their utility bills. Payment experiences and customer satisfaction are closely related. Research highlights the significance of clear billing procedures, effective customer support, and timely problem solving in cultivating client loyalty. The review identifies a number of gaps in the literature, such as the paucity of research on particular demographic groups and the influence of sociocultural elements on payment patterns. Future studies should examine how technology, customer service, and payment patterns interact to create tactics that improve utility bill payment experiences for customers. The next chapter provides the methodology of the study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains the methodological processes of the study. It deals with the techniques and procedures used in collecting data for the study. The structure of the chapter is presented as follows: research design, population, sample size, sampling technique, data collection instrument, and instruments used for analyzing the collected data as well as ethical consideration.

3.2 Research Design

The cross-sectional survey design was used for the study and adopts the quantitative research approach (Ngechu, 2004). The purpose of cross-sectional survey design is for researchers to describe the attitudes, opinions, behaviors, or characteristics of the population based on data collected from a sample or a population. This design was chosen because it has the ability to produce data required for such a descriptive analysis, establishing simultaneous description of views, opinions, perceptions and beliefs at a single point in time (Creswell, 2014). This design was considered as the most suitable because it samples views from customers with different educational levels, age, sex at the same time.

3.4 Population of the Study

The target population is the population to which the researcher wants to generalize the results of the study (Mugenda & Mugenda, 2003). Therefore, the target population for the study were some cross-section of customers who patronized products of the Electricity Company of Ghana in the Accra Metropolis, specifically Headquarters in the Accra Metropolis, Mokola, Accra-Central.

3.5 Sample Size

In this study, the sample size was a total of one hundred (100) respondents who patronized products of the Electricity Company of Ghana in the Accra Metropolis, specifically the Headquarters in the Accra Metropolis. The researcher aimed was to achieve a representative sample, that is, a sample that reflects or "represents" the target population. One hundred (100) sample size was used because the researcher does not have the financial resources to collect data from the entire population. Within the constraints of time and money, 100 participants were sampled.

3.6 Sample Technique

The sampling technique employed in obtaining the sample information was the convenience sampling method. The convenience sampling method helps selects respondents who could provide ready, detail and required information as well as who were more available to participate in the study (Creswell, 2014). The convenience sampling method was expected to enable the researcher to complete a large number of questionnaires cost effectively. The samples were obtained because they are suitable and utilized respondents who are accessible and eager to be included in the research study.

3.7 Sources of Data

The study basically was a survey research and relied mainly on primary and secondary data. For the purpose of this study, primary data comprises of responses obtained through questionnaires

administered to target respondents under study. The sources of secondary data for this research consisted of mainly published text books consisting of journals, articles, magazines and the internet. Data was collected over a period of two weeks. The researcher first sought the permission to collect data within a grace period of two weeks.

3.8 Data Collection Instrument

The study utilised questionnaires for data collection instrument and formulated questions relevant to the subject matter was used and printed with instructions to guide the respondents and enable them express their opinion. Questionnaires were used since they helped the researcher to gather data within a shorter period of time and also it protects the identity of the respondents. The questionnaire used by the researcher as an instrument for the collection of data was divided into four sections. The first section covered the bio-data of the respondents and required them to provide data on gender, age, level of educations among others. The second section addresses the first research question which is how reliability of payment of utility bills influence customer behavior at ECG. The second and third section captures date on the flexibility of payment of utility bills influence customer behavior at ECG and also how convenience of payment of utility bills influence customer behavior at ECG.

Questionnaires are the most commonly used methods when respondents could be reached and are willing to co-operate (Yin, 2014). The justification for using this instrument was that they are easy to quantify and analyze, focuses on opinions, attitudes, feelings and perceptions of respondents (Yin, 2014). The questions included both closed and open-ended forms. The questionnaire was designed in a way that the respondents are required to tick the appropriate answer according to their assessment based on Likert scale. The study prepared a list of questions based on the research

objectives in order to solicit information from the target population and required answers that are definitive to avoid confusion.

3.9 Data Collection Procedure

On the organization of instrument, the researcher made a random selection of respondents from diverse backgrounds. The researcher's identification card from university was attached to the questionnaires that explained the reason for the questionnaires and the purpose of the study. The questionnaires were collected back on the same day because of the distance involved in travelling from one place to another. This measure was taken to ensure privacy, encourage sincerity and to ensure that the respondents remained unknown.

3.10 Data Analysis

The process of data analysis involves several stages as the completed questionnaires were edited for completeness and consistency, checked for errors and omissions and then coded. Data collected was coded and inputted in the Statistical Package Social Science (SPSS) software package for analysis. The data was organized into frequency distribution tables, mean, standard deviation and rank score and percentages for clarity. Descriptions of the data was also done along with their analyses and discussion. Based on the analysis and their interpretations, conclusions were drawn and recommendations made for policy and further studies.

3.11 Ethical Consideration

Permission to collect data was sought from the respondents on the field. All participants were instructed that their participation was voluntary. Participants were also assured that their own identity together with the name of the organization they work for will remain confidential. It was explained to participants that the questionnaire was completely anonymous and does not include

questions asking for any personal details, such as names of participants or names of employers. The study ensured that all respondents were given the opportunity participate and contribute voluntarily to the study. Also, the study ensured that necessary research authorities were consulted and permission granted and due clarifications given to the respondents before start of the study.

3.12 Chapter Summary

In summary, this chapter provides a comprehensive blueprint for conducting the research, ensuring that the process is systematic, rigorous, and ethically sound. Also, this chapter addresses the methodology which included the processes and techniques used in carrying out the study in order to answer the research questions that are outlined in chapter one of the study. The next chapter is the data presentation and analysis.

CHAPTER FOUR

PRESENTATION OF FINDINS, ANALYSIS AND DISCUSSIONS

4.1 Introduction

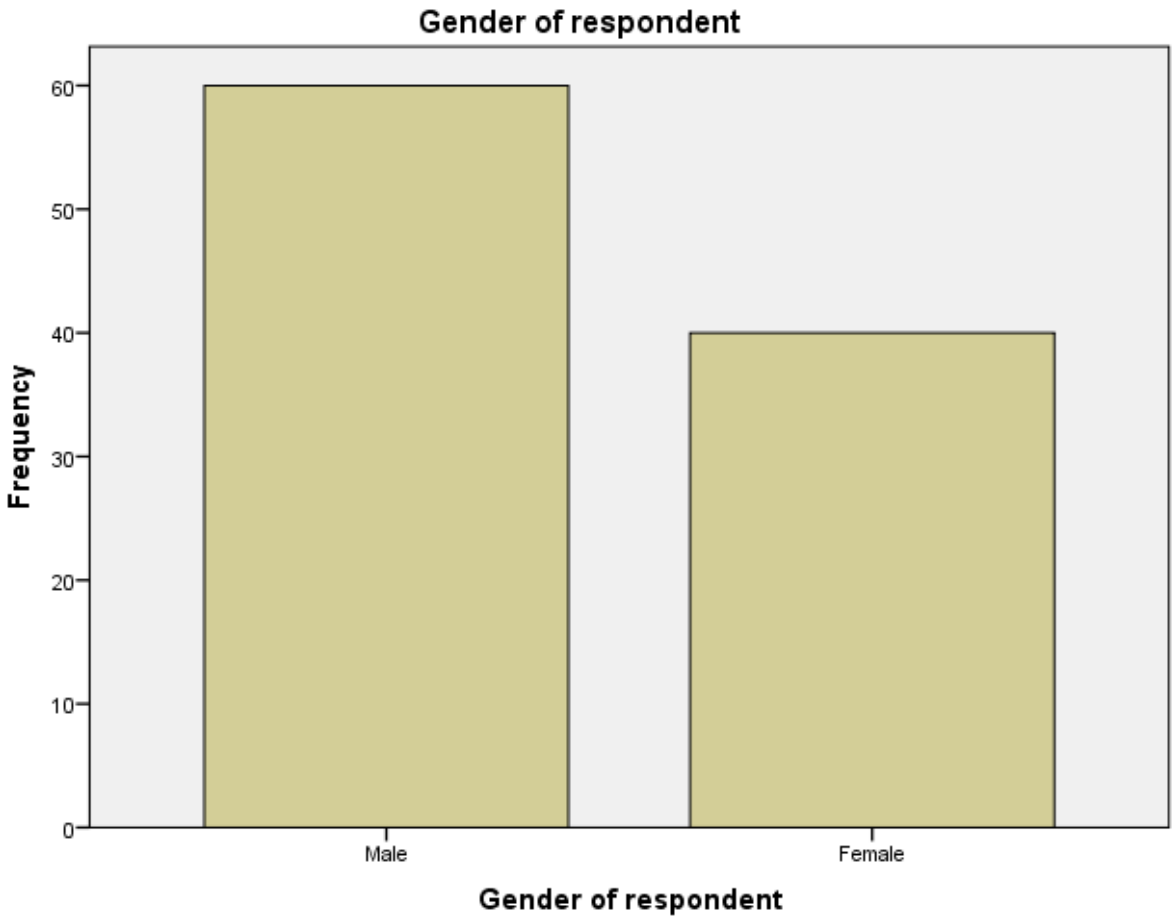
The analysis of the researcher's field data collection is the main topic of this chapter. The questionnaires were composed of questions that addressed the objectives of the study. The research questions that were given to respondents form the basis of the data analyses. The study looked at the understanding customer behaviour in payment of utility bills in Ghana, using the case of the Electricity Company of Ghana (ECG). Most of the information was gathered via questionnaires. Out of the total of one hundred (100) questionnaires that were distributed to the respondents in the

chosen area of study, all the questionnaires were completed and returned representing a response rate of 100%. Babbie (2005) pointed out that for a survey such as this study, a response rate of at least fifty (50%) percent (50%) is adequate for analysis and reporting. He further added that a response rate of sixty percent (60%) is good while that of seventy percent (70%) is very good. Therefore, a response rate of 100.0% raises no question for the analysis. The analysis of the collected data was carried out using descriptive statistics and analytical tools. Data analysis was based on the objectives of the study and done by use of Statistical Package for Social Sciences and descriptive statics such as mean, standard deviation and rank score.

4.1.1 Socio Demographic Characteristics of Respondents

The sociodemographic traits of the survey respondents are detailed in this section of the study. The respondent's age, gender, greatest level of education, and length of service with the Ghana Police Service were the main demographic factors examined. The results of the respondents' demographic data are displayed in the figures below.

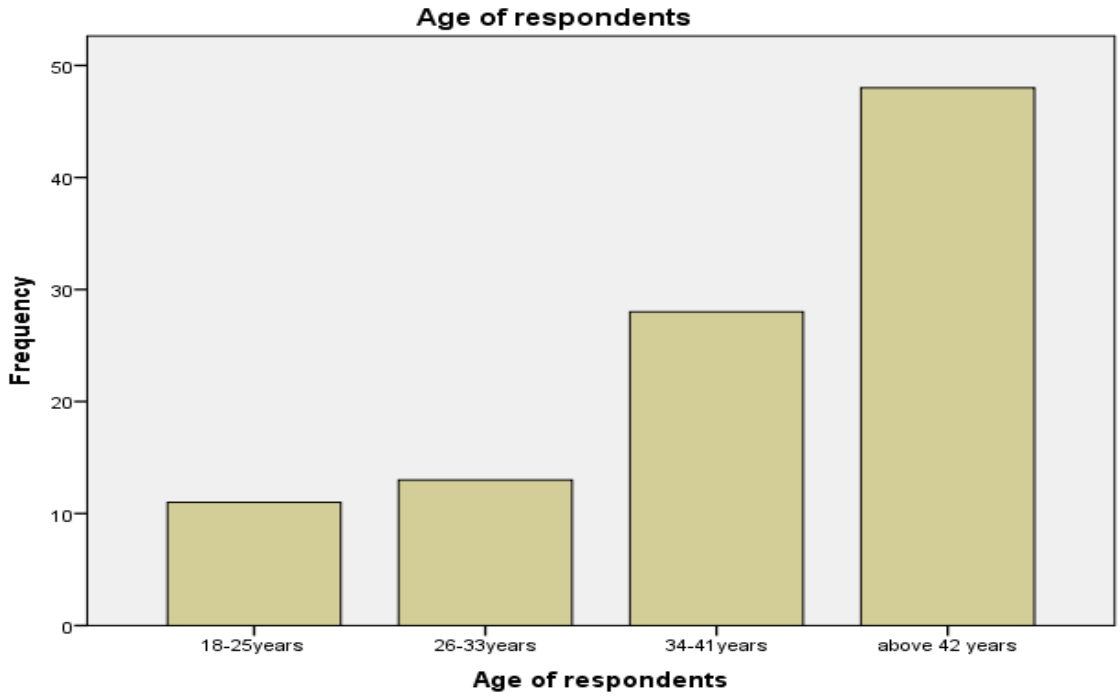
Figure 4.1: Gender of respondents



Source: Researcher's Field Data (2024)

From Figure 4.1, out of the total respondents of 100, the majority (60, 60%) were males whereas (40, 40%) were females. This implied that the majority of study participants were men, with a ratio of 3 males to 2 females. Thus, the study's higher percentage of male respondents than female respondents may indicate a reflection of traditional roles that place greater responsibility for financial decisions such as utility bill payment on men. This suggests that men are frequently seen as the main breadwinners in Ghanaian households which may put the burden of paying electricity bills on them. Also, even though women make financial contributions, men may have the final say in some households regarding when and how much to pay.

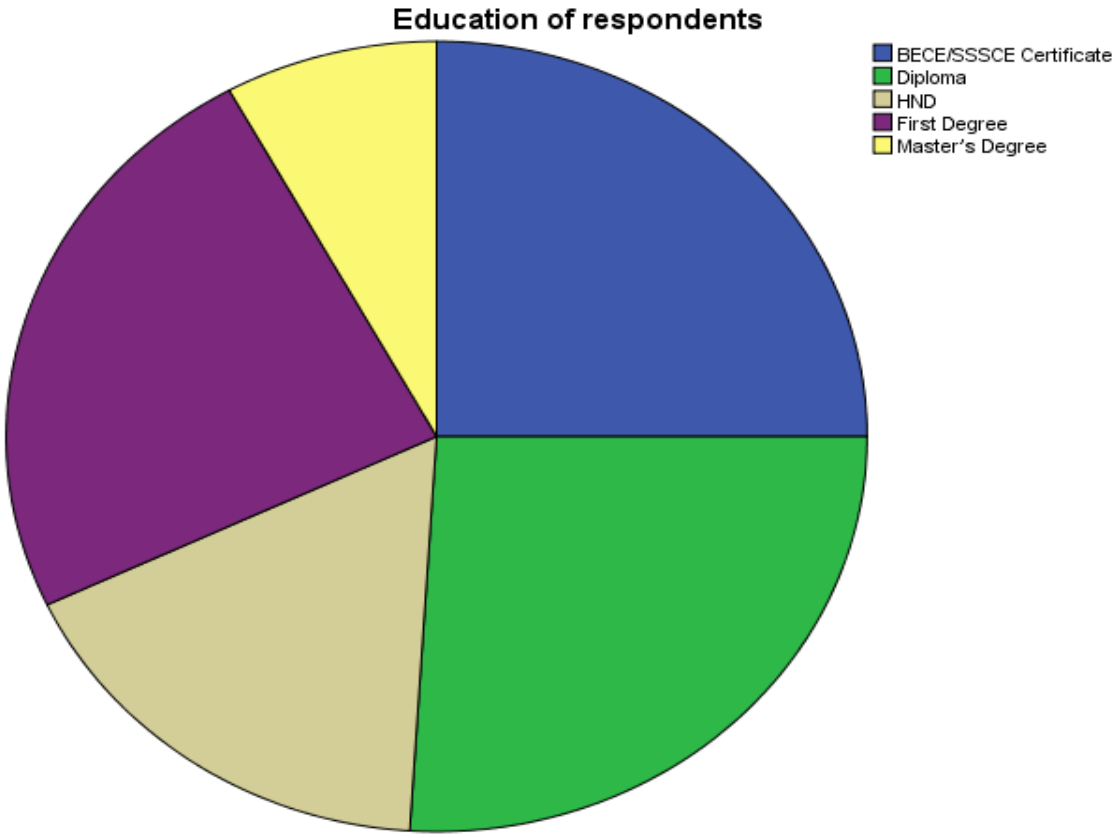
Figure 4.2: Age of respondents



Source: Researcher's Field Data (2024)

Furthermore, the age distribution of the respondents as a percentage showed that most of them (28, 48%) were above the ages of 42 years (this group constitutes the largest percentage of respondents), followed by those who were between the ages of 34-41years, (28, 28%), this is the second-largest age group, those who were between the ages of 26 and 33 (13, 13%), and those who were between the ages of 18 and 25 years (11, 11%). Given that 76% of the respondents were older (34–41 and over 42), represent the majority. This suggests that older individuals are more likely to participate in financial responsibilities such as paying utility bills possible due to greater financial stability or established roles in household management. This implies that older people may have a disproportionate number of opinions or responsibilities regarding issues like paying utility bills because they may be more financially stable or have more household duties. However, the small proportion of respondents who were younger (18–25 years old) might suggest that they are less involved in paying electricity bills or are not as financially independent.

Figure 4.3: Education of respondents

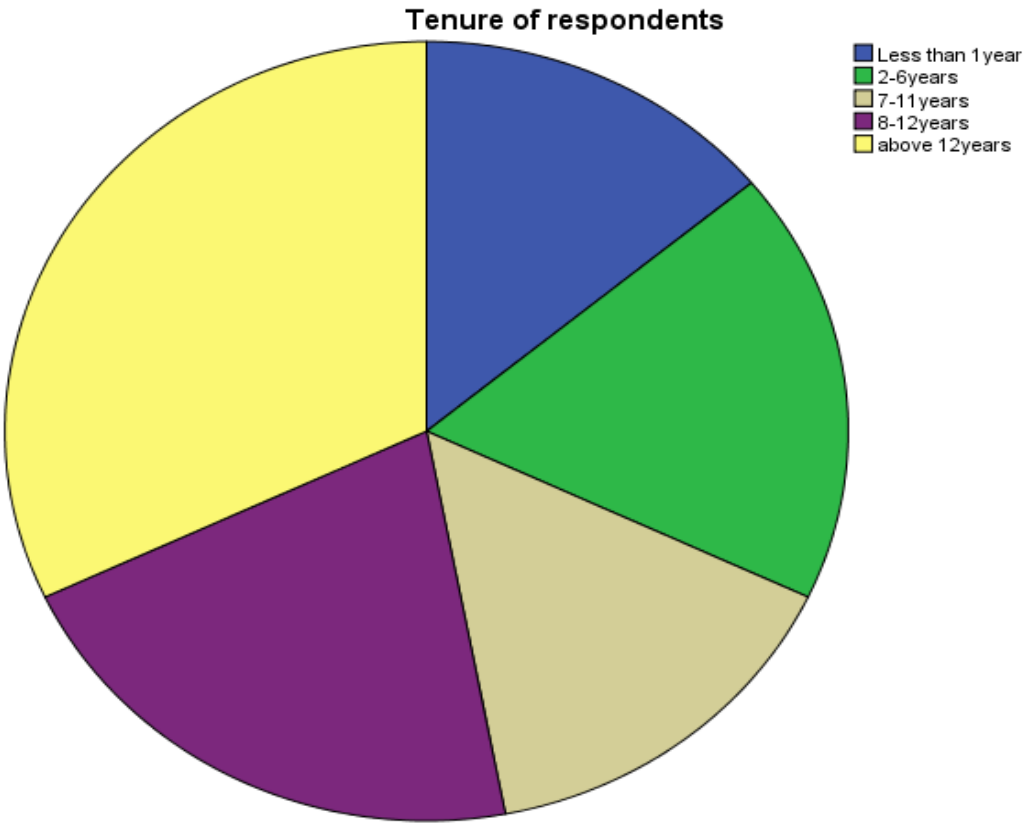


Source: Researcher's Field Data (2024)

The level of education held by the respondents who participated in the study found that only (8, 8%) of the respondents had Master's Degree, reflecting a minority with advanced qualifications. Again, (24, 24%) of the respondents have tertiary level of education as their highest level of education which was followed by (25, 25%) of the respondents who were BECE/SSSCE Certificate holders, representing a significant proportion with basic secondary-level education and (26, 26%) were diploma Certificate holders, indicating a common mid-level educational attainment. It was also seen that just (17, 17%) of the respondents had HND, another form of mid-level qualification. A sizable percentage of the sample has mid-level qualifications as evidenced by the preponderance of respondents with diplomas and BECE/SSSCE certificates. The comparatively low number of respondents holding Master's degrees, however, indicates that there

are fewer people with advanced degrees, which might be indicative of general trends in education in the field. The sample's balanced distribution of tertiary-level qualifications is demonstrated by the presence of people with First Degrees (24%) and HNDs (17%).

Figure 4.4: Tenure of respondents



Source: Researcher's Field Data (2024)

Respondents who participated in the study had varied years of experience as consumers of ECG from the field. Most respondents (32, 32%) of the respondents had been consumers for a period above 12 years (the group represent the largest portion of respondents), while (21, 21%) and (18, 18%) of the respondents had been consumers for 8-12 years as well as 2-6years respectively (they also bring substantial experience to the sample and have a moderate level of experience offering a middle ground perspective). Furthermore, (15, 15%) between 7 to 11 years, suggesting some varied interpretations while (14, 14%) of respondents have been working for a period not less than

1 year (their representation is the lowest potentially providing limited insights from a fresh perspective). The higher representation of respondents with longer tenure (above 12 years and 8-12years) suggests that experienced individuals dominate the sample. Thus may influence responses as longer-tenured individuals often have a deeper responsibility like paying bills. However, the relatively low representation of respondents with shorter tenure (less than I years and 2-6 years) may limit insights into the perspectives of newer individuals.

4.1.2 Reliability and flexibility of payment of utility bills influence customer behavior

The study's goal was to establish how reliability and flexibility of payment of utility bills influence customer behavior at ECG. The respondents were also asked to complete a 5-point Likert scale with anchors on Strongly Disagree (1), Disagree (2), Neither Agree nor Disagree (3), Agree (4), and Strongly Agree (5). The means, standard deviations, and rank score are shown in Table 4.2 below:

Table 4.1: Reliability and flexibility of payment of utility bills influence customer behavior

Descriptive Statistics	*Mean*	*Std. Deviation*	*Rank Score*
1. The payment systems provided by ECG are reliable for consistent and timely transactions	3.8500	1.04809	1st
2. Payment platforms are easily accessible at all times	3.6800	1.31717	2nd
3. Automated payment reminders from ECG improve my compliance with utility payments.	3.6200	1.21256	3rd
4. Frequent system downtimes during payment processes discourage me from paying on time.	3.6100	1.20517	4th
5. The availability of multiple payment options by ECG has positively influence my payment behaviour	3.5200	1.25110	5th
6. Errors in utility bills discourage my payment compliance	3.5000	1.32192	6th
7. Transparent billing practices motivate me to pay utility bills on time	3.4900	1.25122	7th
8. The accuracy of ECG bills increases my trust and commitment to timely payments	3.3000	1.31426	8th

9. The flexibility to choose payment channels (e.g., mobile, bank, office) improve my willingness to pay.	3.1300	1.22808	9th

Source: Researcher's Field Data (2024)

Table 4.1 showed the fallout of how reliability and flexibility of payment of utility bills influence customer behavior at ECG. The mean score recorded ranged from 3.85 to 3.13 meaning that most of the responses were between "agree and strongly agree". Ultimately, "The payment systems provided by ECG are reliable for consistent and timely transactions" recorded the highest mean of (M=3.85; SD=1.04; RS=1st). This suggested that consumers were more satisfied when a reliable payment system made sure they could pay their bills promptly and conveniently without any hassles, delays, or unsuccessful transactions. When consumers receive reliable and consistent service, they are more likely to trust the company's systems and services, which boosts customer loyalty.

The other highest mean was "Payment platforms are easily accessible at all times", "Automated payment reminders from ECG improve my compliance with utility payments", "Frequent system downtimes during payment processes discourage me from paying on time", and "The availability of multiple payment options by ECG has positively influence my payment behaviour" (M=3.68; SD=1.31; RS=2nd), (M=3.62; SD=1.21; RS=3rd), (M=3.61; SD=1.20; RS=4th) and (M=3.52; SD=1.25; RS=5th); respectively. The results showed that by allowing real-time payment tracking, digital systems facilitate the detection and resolution of issues such as default payments. Furthermore, reliable systems encourage consumers to make payments on time because they know the process is straightforward. As a result of their increased confidence in dependability, more consumers are choosing automated and digital processes over cash or in-person meetings.

This was followed by "Errors in utility bills discourage my payment compliance" (Mean=3.50; SD=1.32; RS=6th), "Transparent billing practices motivate me to pay utility bills on time"

(Mean=3.49; SD=1.25; RS=7th), and "The accuracy of ECG bills increases my trust and commitment to timely payments" (Mean=3.30, SD=1.31; RS=8th). The results indicated that consistency in payment transactions minimizes issues such as double charges, failed payments or unprocessed receipts which are common sources of customer dissatisfaction. Therefore, reliable payments systems provided by ECG significantly enhance customer trust, operational efficiency and financial stability while contributing to timely payments and improved service delivery.

The study's findings corroborated Mugabi et al. (2017) and Kayaga, Calvert, and Sansom, (2014); Waldron (2014) who argued that some other institutional factors, namely, transaction time of consumers at the bill payment points and monitoring and control measures on the part of water utilities, may also play critical independent roles in determining consumers' satisfaction level and their bill payment behavior. In the same vein, Mugabi, Kayaga, and Smout (2017) identified that bill delivery, dependability or correctness of meter reading and bills, clarity of bills, flexibility, and choice in payment options are among the main factors that consumers believe to be the facilitators of, or barriers to, timely payment of their electricity bills

4.1.2 How does convenience of payment of utility bills influence customer behavior

The goal of the study was to determine how convenience of payment of utility bills influence customer behavior at ECG. A 5-point Likert scale with the anchors Strongly Disagree (1), Disagree (2), Neither Agree nor Disagree (3), Agree (4), and Strongly Agree (5) was also required of the respondents. Table 4.2 below displays the means, standard deviations, and rank score.:

Table 4.2: Factors that influence the level of motivation of police personnel

Descriptive Statistics	*Mean*	*Std. Deviation*	*Rank Scores*
1. Mobile money services make it convenient to pay my ECG utility bills	3.9100	1.12900	1st

2.	Online payment methods provided by EC are easy and convenient to use	3.8200	1.20922	2nd
3.	The payment instructions provided are clear and easy to follow	3.6000	.99494	3rd
4.	Integration of ECG payments with platforms like banks or apps enhances convenience.	3.5400	1.19274	4th
5.	The proximity points encourages me to pay my utility bills on time	3.5100	1.26726	5th
6.	The time taken to process is convenient and fits into my daily schedules	3.3800	1.27747	6th
7.	Having 24/7 payment options increases my likelihood of paying utility bills on time	3.1600	1.30050	7th
8.	Efficient customer support during difficulties increases my satisfaction	3.1400	1.39277	8th
Valid N (listwise)				

Source: Researcher's Field Data (2024)

The mean score for the factors of how convenience of payment of utility bills influence customer behavior at ECG ranged from 3.91 to 3.14, as indicated by Table 4.2's results. This suggests that the majority of responses fell between "agree and strongly agree." However, "Mobile money services make it convenient to pay my ECG utility bills" recorded the highest mean score of (M=3.82; SD=1.15; RS=1st). This implied that mobile money allows users to pay their utility bills from the convenience of their homes, places of employment, or while on the go by doing away with the need to physically visit banks or ECG offices. Additionally, consumers avoid lengthy lines and administrative hold-ups which speeds up and eases the payment process.

The findings showed that "Online payment methods provided by EC are easy and convenient to use", "The payment instructions provided are clear and easy to follow" and "Integration of ECG payments with platforms like banks or apps enhances convenience" which attained a mean (M=3.82; SD=1.20; RS=2nd); (M=3.60; SD=.99; RS=3rd) and (M=3.54; SD=1.19; RS=4th) as shown in Table 4.2 respectively. According to the findings, certain mobile money services make

it simple to pay bills on time, which lowers the risk of late fees and service interruptions. Also, to help users remember when payments are due, some MMP send out SMS notifications and reminders. Consumers can therefore conveniently pay their bills using mobile money platforms even if they do not have traditional bank accounts. Because mobile money platforms are generally easy to use, people with different levels of technological expertise can use them.

Consequently, "The proximity points encourage me to pay my utility bills on time" and "The time taken to process is convenient and fits into my daily schedules" attained the topmost (Mean=3.51; SD=1.26; RS=5th), and (Mean=3.38; SD=1.27; RS=6th), correspondingly. This implied that when payment points are close by, consumers can more easily access services without having to spend a lot of time or money traveling to far-off offices or banks. Consumers are more likely to incorporate payments into their daily routines when they are handled swiftly and simply. lowering procrastination and making sure bills are paid on time.

The mean mark of (M=3.16; SD=1.30; RS=7th) was related with participants who strongly agreed that "Having 24/7 payment options increases my likelihood of paying utility bills on time". Nevertheless, the study displayed that "Efficient customer support during difficulties increases my satisfaction" and "Efficient queue management at ECG offices makes in-person payments stress-free" (Mean=3.14, SD=1.39; RS=8th) and (Mean=3.14, SD=1.46; RS=8th) were the lowest of how convenience of payment of utility bills influence customer behavior at ECG. Inferences can be made that consumers no longer need to waste time or endure protracted processes, making the payment process easy and stress-free. Consumers can complete transactions more quickly thanks to quick processing times, which frees up time for other commitments and interests. Consumers are more likely to make their payments on time when payment locations are convenient and meet daily schedules. Overall adherence to deadlines is improved as a result.

The results are corroborated by Schuh and Stavins (2017) who asserted that, convenience is regarded to the degree to which people can save time, effort to carry, or ability to keep or store, or do some physical requirements at the time of payment. In their study, convenience driver was statistically demonstrated to be associated to the consumer choice of card usage. This view is also reinforced by Borzekowski et al. (2016), in their empirical paper, convenience is overwhelmingly cited as a main reason for using debit cards. Additionally, the convenience in consumers' use of bank cards was specifically investigated in the study by (Arango & Taylor, 2019). These authors found that consumers perceiving bank cards to be more convenient and less risky than cash use them more frequently and consumers substantially shift away from cash and towards alternative payment methods (Arango & Taylor, 2019).

4.1.3 Challenges of motivation pertaining to police personnel of Ghana Police Service

The study sought to identify the challenges of motivation pertaining to police personnel of Ghana Police Service. Also, the respondents were required to use a 5-point Likert scale anchored on Strongly Disagree (1), Disagree (2), Neither Agree nor Disagree (3), Agree (4) and Strongly Agree (5). The means, standard deviations and rank score are presented in Table 4.2 below:

Table 4.3: Challenges in utility bills Payment and Solutions

Descriptive Statistics	*Mean*	*Std. Deviation*	*Rank Scores*
The cost of utility bills is a major challenge affecting my payment compliance	3.9700	.94767	1st
Long queues at ECG payment centers are a significant challenge for me	3.8600	1.18935	2nd
Providing incentives (e.g., discounts for early payments) would encourage me to pay on time.	3.8100	1.17804	3rd
Technical issues with payment platforms discourage me from making timely payments	3.7900	1.04731	4th
Frequent communication from ECG about payment processes and options can improve compliance	3.5400	1.16706	5th

Lack trust in some payment systems due to potential errors or fraud	3.5400	1.18424	6th
I am not fully aware of all the available payments offered by ECG	3.5300	1.14992	7th
Digital enhancements (e.g., apps, user-friendly platforms) would make payments easier.	3.2500	1.22578	8th
Language barriers make understanding the payment process challenging	3.0600	1.36197	9th

Source: Researcher's Field Data (2024)

According to the outcome of Table 4.3, all the 9 challenges of the faced by consumers of ECG in paying their utility bills, and how can these challenges be addressed to improve payment compliance recorded the mean score between 3.97-3.307 per the findings. The study found that, "The cost of utility bills is a major challenge affecting my payment compliance" recorded the highest mean of (M=3.96; SD=1.10; RS=1st). This implied that because high utility costs require a larger portion of consumers' meager income to be spent on electricity, they make it more difficult for them to pay for other essentials like food, housing, healthcare, and education. Therefore, if bills become unaffordable, consumers may put off payments or take out loans to meet their obligations, which would lead to stress and debt.

The other highest mean was "Providing incentives (e.g., discounts for early payments) would encourage me to pay on time", "Technical issues with payment platforms discourage me from making timely payments", "Frequent communication from ECG about payment processes and options can improve compliance" and "Lack trust in some payment systems due to potential errors or fraud" (M=3.81; SD=1.23; RS=2nd), (M=3.72; SD=1.07; RS=3rd), (M=3.64; SD=1.14; RS=4th) and (M=3.60; SD=1.24; RS=5th); respectively.

This implied that extended waiting results in irritation and annoyance, which ultimately causes dissatisfaction with ECG services. Consumers may suggest payments to avoid long lines, which raises the possibility of non-compliance or late payments. Consumers are discouraged from

making payments by technical problems such as system failures, unsuccessful transactions, or errors, which leads to missed or postponed payments. Frequent technical issues erode consumers' trust in digital payment platforms, leading them to favor less efficient in-person transactions.

This was again followed by "Lack trust in some payment systems due to potential errors or fraud" (Mean=3.54; SD=1.18; RS=6th), and "I am not fully aware of all the available payments offered by ECG" (Mean=3.53, SD=1.14; RS=7th). The study similarly showed that "Language barriers make understanding the payment process challenging", (Mean=3.48, SD=1.27; RS=8th) were the least challenges of the faced by consumers of ECG in paying their utility bills. This implied that regular communication lowers misunderstandings and non-compliance by informing consumers about payment options, deadlines, and procedures. If consumers think payment platforms are unreliable or prone to fraud, they might decide to pay in person instead. Fear of errors such as overcharging or unsuccessful transactions discourages consumers from paying on time. Regular updates strengthen the bond between ECG and its consumers by promoting openness and trust. Reliance on physical payment centers can be decreased through efficient communication about digital platforms and mobile money. Consequently, consumers are less confused and irritated when procedures are communicated clearly.

The findings corroborate with Chipofya et al. (2019) who argued that utilities firms do not achieve efficiency in billing because (i) bill packages fail to establish the customer base, (ii) bills delivery is irregular, often resulting in non-payment by registered consumers especially in slum areas, (iii) there are incidences of undercharging and overcharging due to billing errors, creating dissatisfaction among consumers and (iv) ineffectiveness of the billing system. Liu, Wu, and Yu-Buck (2021) posited that complex and confusing billing statements could lead to misunderstandings and disagreements about the amount owed. Liu, Luo, and Zhang (2020)

asserted, however, that insufficient customer care can increase client dispair and cause bill payments to be delayed. They also stressed that consumers might encounter problems if there are no flexible payment options or ways to spread out payments over time. Manshad and Brannon (2021) added to the research by highlighting how consumers may fail to make payments as a result of utility providers' poor communication about due dates, available payment options, and the repercussions of non-payment.

4.2 Discussion of Results

From the objective one, the study sought to establish how reliability and flexibility of payment of utility bills influence customer behavior at ECG. The reliability and flexibility of utility bill payment systems are key determinants of customer behavior. Reliable payment systems ensure that customers can make transactions without frequent technical failures, errors, or delays. Flexibility, on the other hand, encompasses options such as varied payment platforms, installment plans, and diverse payment schedules. Research indicates that when utility companies provide reliable systems, customers are more likely to trust and engage with the service (Brown & Taplin, 2021). Similarly, flexible payment options have been shown to cater to diverse customer financial capacities, leading to increased payment compliance (Johnson et al., 2020). For ECG, the introduction of mobile payment platforms, bank payment options, and digital wallets has likely enhanced both reliability and flexibility. However, system downtimes or limitations in payment options may deter compliance.

From the objective two, the study sought to determine how convenience of payment of utility bills influence customer behavior at ECG. Convenience directly influences the ease with which customers interact with ECG's payment platforms. This includes factors such as accessibility, user-friendly interfaces, and the availability of physical and digital payment channels. Studies such as

that by Smith and Baker (2019) suggested that convenient systems reduce the effort and time required for transactions, enhancing customer satisfaction and loyalty. For ECG, the expansion of digital payment solutions and the ability to pay through third-party services have likely improved convenience. Nevertheless, disparities in digital literacy or a lack of access to online services among certain customer segments could pose barriers. Thus, while convenience significantly shapes positive customer behavior, efforts must be made to ensure inclusivity.

From the objectives three, the study identified the challenges of the faced by customers of ECG in paying their utility bills, and how can these challenges be addressed to improve payment compliance. Despite improvements, ECG customers face several challenges in paying utility bills such as frequent system downtimes and connectivity issues. Customers with irregular income find it difficult to adhere to fixed payment schedules. Also, limited payment points in rural areas and a lack of awareness of payment options and processes.

Effective solutions to these challenges can improve payment compliance and foster trust between ECG and its customers. For instance, upgrading digital systems to ensure uninterrupted service aligns with findings from Evans and Cooper (2022), who highlight that system reliability increases customer satisfaction and compliance rates. Additionally, providing flexible payment solutions echoes the recommendations of global energy companies in achieving higher compliance (World Bank, 2021).

4.3 Chapter Summary

The objectives and research questions act as a roadmap for the systematic presentation of the results. Important trends that emerged from the data are highlighted usually supported by unambiguous visual aids such as tables, charts, and graphs. When interpreting the results in the discussion, the theoretical framework, literature, and research objectives are taken into account.

The chapter ends with a summary of the main conclusions and ramifications of the study. It fills in the gaps between the recommendations and conclusions covered in the next chapter.

CHAPTER FIVE

SUMMARY OF MAJOR FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The key findings and conclusions of the study are summarized in this chapter and should be considered when formulating policy. Three themes are used to summarize the chapter in order to replicate the aforementioned.

5.2 Summary of some major findings made by the study

The aim of this study was to examine the understanding customer behaviour in payment of utility bills in Ghana, using the case of the Electricity Company of Ghana (ECG). The study had three specific objectives, that is firstly, to examine how reliability and flexibility of payment of utility bills influence customer behavior at ECG; secondly, to determine how convenience of payment of utility bills influence customer behavior at ECG; and thirdly, to identify the challenges of the faced by consumers of ECG in paying their utility bills, and how can these challenges be addressed to improve payment compliance. In this regard, the study adopted cross-sectional survey design and

quantitative research approach using questionnaire. Data was analyzed using descriptive statistics such as, pie and bar chart, mean, standard deviation and rank sores.

From the first objective, the established that reliability and flexibility of payment of utility bills influenced customer behavior at ECG. The findings demonstrated that, the payment systems provided by ECG were reliable for consistent and timely transactions and that payment platforms were easily accessible at all times by the consumers. Furthermore, the research indicated that automated payment reminders from ECG improved consumers' compliance with utility payments. The study found that the availability of multiple payment options by ECG has positively influence consumers' payment behaviour.

From the second objective, the study sought to determine how convenience of payment of utility bills influence customer behavior at ECG. Results from the study found that mobile money services made it convenient to pay consumers ECG utility bills due to the online payment methods provided by ECG which were easy and convenient to use. The data found that the payment instructions provided by ECG were clear and easy to follow as the integration of ECG payments with platforms like banks or applications enhanced convenience. The outcome showed that the proximity to ECG points encouraged the consumers to pay their utility bills on time. As a result, the time taken to process was convenient and fits into their daily schedules.

From the objective three, the study sought to identify the challenges faced by consumers of ECG in paying their utility bills, and how can these challenges be addressed to improve payment compliance. It was found the cost of utility bills is a major challenge affecting consumers' payment compliance. The study deduced that long queues at ECG payment centers were a significant challenge for consumers and as a result, providing incentives (e.g., discounts for early payments) would encourage them to pay on time. Also, it was found the technical issues with payment

platforms discourage consumers from making timely payments. The study revealed that the frequent communication from ECG about payment processes and options can improve compliance and the digital enhancements, for example, apps, would make payments easier.

5.3 Answering of research questions by the study

The study sought to answer three research questions which are as follows: How does the reliability and flexibility of payment of utility bills influence customer behavior at ECG? ,How does the convenience of payment of utility bills influence customer behavior at ECG? and What are the challenges faced by customers of ECG in paying their utility bills, and how can these challenges be addressed to improve payment compliance?

5.3.1 The influence of reliability and flexibility of payment of utility bills on customer behavior at ECG

The findings regarding the payment systems provided by the Electricity Company of Ghana (ECG) indicate a multifaceted interaction between reliability, consumer behavior, and technological integration. The reliability of these payment systems is paramount, as it fosters consistent and timely transactions. Research shows that customers are more inclined to engage with payment systems they perceive as dependable. For instance, Sualihu and Rahman (2014) emphasize that the ECG's challenges in maintaining customer payments are partly due to its inconsistent service delivery, which can undermine customer trust and willingness to pay (Sualihu & Rahman, 2014). Conversely, when payment systems are reliable, they encourage customers to comply with their payment obligations, thereby enhancing overall revenue collection for the utility. Moreover, the

availability of multiple payment options has been shown to positively influence consumer payment behavior. The flexibility afforded by various payment methods—such as mobile payments, bank transfers, and prepaid metering—allows customers to choose the most convenient option for their circumstances. This flexibility is crucial, especially in developing economies where financial constraints may dictate payment preferences. Studies indicate that when customers have access to diverse payment channels, their likelihood of making timely payments increases significantly (Yaokumah et al., 2017). This is supported by the findings of Yaokumah et al. (2017) who highlight that demographic factors influence the adoption of e-payment services, suggesting that tailored payment options can enhance customer engagement (Yaokumah et al., 2017). Automated payment reminders from ECG were also identified as a significant factor in improving compliance with utility payments. The effectiveness of reminders in prompting timely payments is well-documented in behavioral economics. For example, Roll et al. (2024) demonstrate that reminders can effectively reduce payment delinquencies across various contexts, including utility bills (Roll et al., 2024). This aligns with the findings of Lambongang (2023) who notes that timely notifications can significantly enhance customer adherence to payment schedules (Lambongang, 2023). The integration of automated reminders into the payment system not only serves as a nudge for customers but also reinforces the reliability of the service provided by ECG. However, despite these positive aspects, frequent system downtimes remain a significant barrier to timely payments. Downtimes can lead to frustration among customers, causing them to seek alternative payment methods or delay payments altogether. This issue is echoed in the literature, where system reliability is linked to customer satisfaction and payment behavior. Guajardo (2019) research illustrates that disruptions in service can adversely affect customer payment patterns, highlighting the need for robust technological infrastructure to support payment systems (Guajardo, 2019). Furthermore, the perception of unreliability due to system failures can diminish customer trust,

ultimately impacting their willingness to engage with the ECG's payment systems (Kim et al., 2010).

5.3.2 The influence of convenience of the payment of utility bills on customer behavior at ECG

The findings of the study highlight the transformative impact of mobile money services on the payment behavior of consumers regarding their utility bills with the Electricity Company of Ghana (ECG). The convenience afforded by these services is a critical factor in enhancing customer compliance and satisfaction. This expansion delved into the various dimensions of convenience associated with mobile money services, online payment methods, clear payment instructions, integration with banking platforms, and the strategic placement of ECG payment points. Mobile money services have revolutionized the way consumers engage with utility payments, particularly in developing economies like Ghana. The study indicates that these services significantly enhance the convenience of paying ECG utility bills. According to a report by the World Bank, mobile money has been instrumental in increasing financial inclusion, allowing consumers to conduct transactions without the need for traditional banking infrastructure (Sualihu & Rahman, 2014). The ability to pay bills via mobile devices eliminates the need for physical travel to payment points, thereby saving time and reducing transaction costs. Furthermore, the flexibility of mobile money services allows consumers to make payments at their convenience, whether during working hours

or outside of them, which is particularly beneficial for those with demanding schedules (Nawawi et al., 2023).

5.3.3 The challenges faced by customers of ECG in paying their utility bills, and how these challenges can be addressed to improve payment compliance

The challenges faced by consumers in paying their utility bills to the Electricity Company of Ghana (ECG) are multifaceted and stem from various systemic and behavioral factors. These challenges include frequent system downtimes, connectivity issues, and difficulties that arise for customers with irregular income. Additionally, limited payment points in rural areas and a lack of awareness regarding available payment options further exacerbate compliance issues. Suggested solutions to these challenges encompass upgrading digital systems, expanding flexible payment options, and enhancing consumer education about payment methods. Frequent system downtimes significantly hinder the ability of consumers to make timely payments. Such downtimes can lead to frustration and a lack of trust in the payment system, which ultimately discourages compliance. Research indicates that system reliability is a crucial determinant of consumer behavior in payment contexts. For instance, Sualihu and Rahman (2014) highlight that disruptions in service can adversely affect customer payment patterns, emphasizing the need for robust technological infrastructure to support payment systems (Sualihu & Rahman, 2014). Furthermore, connectivity issues can disproportionately affect consumers in rural areas, where internet access may be limited, thereby complicating their ability to utilize digital payment methods.

5.4 Limitations of the study

The study employed a convenience sampling technique. One of the primary concerns with convenience sampling is the potential for selection bias. Since the sample is drawn from individuals who are readily available, it may not accurately reflect the broader population of interest. In the present study, the sample consisted predominantly of urban residents who frequent specific payment points, the findings may not be applicable to rural consumers who face different challenges and behaviors regarding utility payments. As noted by Etikan et al. (2016), convenience sampling can lead to skewed results that do not adequately represent the diversity of the target population

The study used a questionnaire as a data collection tool. One of the primary concerns associated with using questionnaires is the potential for self-reporting biases. Self-reporting bias occurs when respondents provide inaccurate or misleading information due to various factors, including social desirability, recall bias, or lack of self-awareness. For instance, participants may overstate their satisfaction with a service or their frequency of payments to align with perceived social norms or expectations. This phenomenon is particularly relevant in studies related to utility payments, where respondents might feel pressured to present themselves as responsible consumers.

5.5 How the study has contributed to knowledge

Understanding customer behavior in the context of the Electricity Company of Ghana (ECG) is crucial for enhancing revenue collection and improving service delivery. Insights into how

customers interact with payment systems indicates that factors such as reliability, flexibility, and convenience significantly influence their payment habits.

Flexibility in payment options plays a vital role in shaping customer behavior. The ability to choose from various payment methods—such as mobile money, bank transfers, or prepaid metering—can significantly influence customers' willingness to pay their electricity bills. For example, the study by Amankwaa et al. (2020) demonstrates that the adoption of electronic payment innovations can facilitate timely payments by making the process more accessible and user-friendly (Amankwaa et al., 2020). Similarly, the findings from Jack and Smith (2015) indicate that customers, particularly those from lower-income households, prefer payment methods that allow for smaller, more frequent transactions, which aligns with their financial capabilities (Jack & Smith, 2015). This preference for flexibility can help ECG tailor its payment systems to better meet customer needs.

Convenience is another essential factor driving customer payment behavior. The integration of technology into payment systems has made it easier for customers to pay their bills without the need to visit physical locations. Nawawi et al. (2023) emphasize that the ease of use and accessibility of payment platforms significantly impact customer engagement (Nawawi et al., 2023). Moreover, the effectiveness of fintech solutions in simplifying payment processes has been shown to motivate customers to engage more actively with their payment obligations (Arelsa & Sholahuddin, 2023). The convenience offered by mobile payment systems, as noted by Huang and Cheng (2012), enhances customer satisfaction and encourages continued use of these services.

5.6 Recommendations for Policy

The following recommendations are offered to enhance revenue collection while raising productivity and customer satisfaction, based on the data acquired from studying how Ghanaian consumers pay their utility bills, with an emphasis on the Electricity Company of Ghana (ECG).

- ECG should invest in improving the reliability and usability of digital payment systems, such as mobile money, mobile apps, and online portals. Improving these systems to lower errors and downtime will increase customer trust and encourage wider use. Working with telecom providers is also essential to ensuring that payment systems integrate seamlessly.
- A thorough public education campaign should be launched to raise awareness of the benefits of making on-time bill payments as well as the different payment options. This might involve community forums, social media outreach, and direct SMS alerts. These programs should be created to debunk myths, provide comprehensive guidance, and clearly outline the repercussions of nonpayment.
- Flexible payment options like installment plans, partial payments, and prepaid and post-paid options ought to be made available by ECG. These programs would ease the financial burden of lump-sum payments and assist consumers with erratic income patterns.
- ECG should use data analytics to divide up its customer base according to their challenges, preferences, and payment habits. This strategy will make it possible to implement focused interventions like customized payment reminders, loyalty programs for regular payers, or exclusive deals for low-income clients.

- Resolving complaints and dealing with problems pertaining to bill payments require better consumer support systems. ECG should set up a responsive complaints resolution unit, round-the-clock customer service lines, and an easy-to-use feedback system.

5.7 Recommendations for further research

Future research should investigate how the increasing use of digital payment methods influences customer behavior, preference and compliance with utility payments. Future studies should look at longitudinal analysis of payment trends over time to identify factors driving changes in customer behavior especially during economic downturns or energy crisis.

5.8 Conclusion

Enhancing the sustainability and efficacy of utility services, especially in Ghana, requires an understanding of how consumers pay their bills. The complexity of this problem, which includes socioeconomic, infrastructure, and technological components, is demonstrated by the Electricity Company of Ghana case. According to this study, consumers' methods of paying their utility bills are influenced by a number of factors, including the dependability, flexibility, and convenience of payment systems as well as obstacles like poor communication, restricted access to digital platforms, and perceived inefficiencies in service delivery. Electronic platforms and mobile money are examples of modern payment methods that have improved customer convenience and raised payment compliance. However, ongoing difficulties like poor connectivity, a lack of knowledge about digital platforms, and sporadic technical problems make it difficult to conveniently pay utility bills. Furthermore, the socioeconomic circumstances of many Ghanaians, which include irregular income and financial difficulties, exacerbate late or nonexistent payments.

This study emphasizes how crucial a customer-centric strategy is to overcoming these obstacles. To promote a positive payment culture, ECG needs to improve its communication strategies to

inform consumers about the advantages of on-time payment plans. Providing reliable customer service and improving the dependability of digital platforms are also essential steps. In conclusion, comprehending consumer behavior entails more than just figuring out why consumers are unable to pay their utility bills; it also entails using insights to create interventions that satisfy the needs and expectations of the consumer. If ECG places a high priority on customer engagement and satisfaction, it will improve customer relationships, increase revenue collection, and foster trust.

BIBLIOGRAPHY

Agyekum, E. R., Atmaja, G. K. K., & Yasa, N. N. K. (2020). The role of customer satisfaction in mediating the influence of price fairness and service quality on the loyalty of low cost carrier's customers. *International Research Journal of Management, IT and Social Sciences, 7*(5), 149-159.

Alawneh, S. A., Al- Refai, B., & Batiha, M. (2013) (1997). Customers´ motivation for maintaining relationships with service providers. *Journal of Retailing, 73*(1), 15-37.

Al Hafizi, J., & Ali, D. (2021). An experimental study of customer effort, expectation, and satisfaction. *Journal of Marketing Research, 2*(8), 244-249.

Ali, S. E., Churchill, G. A., & Suprenant, C. (1982). An Investigation into the Determinants of Customer Satisfaction. *Journal of Marketing Research, 19*(4), 491-504.

Amankwaa, G., Asaaga, F., Fischer, C., & Awotwe, P. (2020). Diffusion of electronic water payment innovations in urban ghana. evidence from tema metropolis. Water, 12(4), 1011. https://doi.org/10.3390/w12041011

Ajzen, I. (2012). The theory of planned behavior. In P. A. M. Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), Handbook *of theories of social psychology* (Vol. 1, pp. 438–459). London, United Kingdom: Sage.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179-211.

Ang, T., Wei, S., & Arli, D. (2021). Social distancing behavior during COVID-19: a TPB perspective. *Marketing Intelligence & Planning*, *39*(6), 809-824.

Arango, C., & Taylor, V. (2019). The Role of Convenience and Risk in Consumers' Means of Payment. *Bank of Canada Discussion Paper. 8*(12), 23-34.

Arelsa, K. and Sholahuddin, M. (2023). Does the effectiveness of the fintech platform affect interest in paying infaq and sadaqah?. Sebelas Maret Business Review, 8(1), 1. https://doi.org/10.20961/smbr.v8i1.75080

Bandara, D., Bujisic, M., Hutchinson, J., & Parsa, H. G. Boonlertvanich, K. (2021). Effect of customer perceived value on satisfaction and customer loyalty in banking service: The

moderating effect of mainbank status. *International Journal of Business Research, 11*(6), 40-54.

Bolt, G., Han, H., & Ryu, K. (2008). The roles of the physical environment, price perception, and customer satisfaction in determining customer loyalty in the restaurant industry. *Journal of hospitality & tourism research*, *33*(4), 487-510.

Borzekowski, R., Kiser, E. K., & Ahmed, S. (2016). Consumers' Use of Debit Cards: Patterns, Preferences, and Price Response. *Finance and Economics Discussion Series, 10*(10), 56-67

Bounie, D., & François, A. (2016). Cash, Check or Bank Card? The effects of transaction characteristics on the use of payment instruments. Telecom Paris. *Department of Economics and Social Sciences, 23*(12), 67-89

Brunekreeft, E., Jang, S. S., & Namkung, Y. (2014). Perceived quality, emotions, and behavioral intentions: Application of an extended Mehrabian–Russell model to restaurants. *Journal of business research*, *62*(4), 451-460

Carbó-Valverde, S., & Liñares-Zegarra, J. M. (2011). How effective are rewards programs in promoting payment card usage? Empirical Evidence, *21*(24), 78-98

Canova, L., & Manganelli, A. M. (2020). Energy-saving behaviours in workplaces: Application of an extended model of the theory of planned behaviour. *Europe's Journal of Psychology, 16*(3), 384-400

Chen, H., Kafetzopoulos, D. P., Gotzamani, K. D., & Psomas, E. L. (2017). The impact of employees' attributes on the quality of food products. *International Journal of Quality & Reliability Management*, 45(9), 45-77

Ching, A., & Hayashi, F. (2016). Payment Card Rewards Programs and Consumer Payment Choice. *Payments System Research, Federal Reserve Bank of Kansas City, 06*(02), 1-35.

Chipofya, A., Hoko, G., & Gustaff, H. (2019). The role of etail quality, e-satisfaction and e-trust in online loyalty development process. *Journal of retailing and Consumer services*, *16*(4), 239-247.

Canova, L., & Manganelli, A. M. (2020). Energy-saving behaviours in workplaces: Application of an extended model of the theory of planned behaviour. *Europe's Journal of Psychology, 16*(3), 384-400.

Caputo, A. (2020). Comparing theoretical models for the understanding of health-risk behaviour: Towards an integrative model of adolescent alcohol consumption. *Europe's Journal of Psychology, 16*(3), 418-436

Dominici, W., Kim, W. H., Cho, J. L., & Kim, K. S. (2021). The relationships of wine promotion, customer satisfaction, and behavioral intention: The moderating roles of customers' gender and age. *Journal of Hospitality and Tourism Management*, *39*, 212-218.

Farahani, G., Lee, J. E., & Chen-Yu, J. H. (2022). Effects of price discount on consumers' perceptions of savings, quality, and value for apparel products: mediating effect of price discount affect. *Fashion and Textiles*, *5*(1), 1-21.

Foster, B., & Greene, S. (2021). Users' intention to continue using social fitness-tracking apps: expectation confirmation theory and social comparison theory perspective. *Informatics for Health and Social Care, 44*(3), 298-312.

Foster, K. & Claire G. (2021) Consumer behaviour in a health crisis: What happened to cash?." *Journal of Payments Strategy & Systems 15* (2), 188-196.

Gafeeva, A. S., Hoelzl, K. L., & Roschk, B. (2017). Does quality really matter? Variables that drive postmodern consumer choices. *Nutrition & Food Science, 56*(12), 45-78

Gaur, B., Oliver, R. L., & Swan, J. E. (2015). Consumer perceptions of interpersonal equity and satisfaction in transactions: a field survey approach. *Journal of marketing*, *53*(2), 21-35.

Gronroos (1984)

Hayashi, F., & Klee, E. (2018). Technology Adoption and Consumer Payments: Evidence from Survey Data. *Payments System Research, Federal Reserve Bank of Kansas City, 2*(2), 159-176.

Huang, E. and Cheng, F. (2012). Online security cues and e-payment continuance intention. International Journal of E-Entrepreneurship and Innovation, 3(1), 42-58. https://doi.org/10.4018/jeei.2012010104

Jack, B. and Smith, G. (2015). Pay as you go: prepaid metering and electricity expenditures in south africa. American Economic Review, 105(5), 237-241. https://doi.org/10.1257/aer.p20151096

Jia, S., Hall, J., & Sun, L. (2014). Integrating perceived playfulness into expectation-confirmation model for web portal context. *Information & management*, *42*(5), 683-693.

Khandker, M., Omar, M. W., Shaharudin, M. R., Jusoff, K., & Ali, M. N. M. (2012). Understanding the mediating effect of cognitive and emotional satisfaction on customer loyalty. *Journal of Business Management*, *5*(17), 7683-7690.

Kardes, E. R., Cronley, M., Cline, T., & Rajendran, K. N. (2018). Is reference price a fair price or an expected price?. *Innovative Marketing*, *5*(2), 18-29.

Kamran, B., Rozekhi, N. A., Hussin, S., Siddiqe, A. S. K. A. R., Rashid, P. D. A., & Salmi, N. S. (2016). The influence of food quality on customer satisfaction in fine dining restaurant: Case in Penang. *International Academic Research Journal of Business and Technology*, *2*(2), 45-50.

Kayaga, T. A., Sarkar, S., & Khare, A. (2014). Influence of expectation confirmation, network externalities, and flow on use of mobile shopping apps. *International Journal of Human–Computer Interaction*, *35*(16), 1449-1460.

Kayaga, R., Calvert, N., & Sansom, M. (2014). Impact of operations management strategies on customer satisfaction and behavioral intentions at café-restaurants. *International Journal of Productivity and Performance Management, 78*(5), 234-301

Khaniwale C. (2015). Evaluating service quality and productivity in the regional airline industry. *Transportation Journal, 34*(8), 21-32.

Klee, E. (2016). Families' use of payment instruments during a decade of change in the U.S. Payment System. *Finance and Economics Discussion Paper, 7*(9). 56-78

Kotler & Armstrong, 2017).

Kotler, P. & Keller, K. L., 2012. *Marketing Management.* 14th ed. New Jersey: Prentice Hall.

Kumar, E., A., Nim, J. K., & Agarwal, A. (2021). Understanding customer expectations of services. *Sloan Management Review*, *32* (3), 39-48.

La Barbera, F., & Ajzen, I. (2020). Control interactions in the theory of planned behavior: Rethinking the role of subjective norm. *Europe's Journal of Psychology, 16*(3), 401-417.

La Barbera, F., & Ajzen, I. (2020). Control interactions in the theory of planned behavior: Rethinking the role of subjective norm. *Europe's Journal of Psychology, 16*(3), 401-417.

La Barbera, F., & Ajzen, I. (2020b). Understanding support for European integration across generations: A study guided by the theory of planned behavior. *Europe's Journal of Psychology, 16*(3), 437-457

Lawrence, H. A., & Weber, M. (2020) A cognitive model of the antecedents of satisfaction decisions. *Journal of Marketing Research*, *17*(8), 46-49.

Lee, B. (2019). The impact of technology on the quality–value–loyalty chain: A research agenda. *Journal of Academic of Marketing Science, 28*(8), 168–174.

Li, L., Pryor, M. G., Anderson, D., Toombs, L. A., 7 Humphreys, J. H. (2019). Strategic implementation as a core competency: The 5P's model. *Journal of Management Research, 7*(1), 3-17.

Liu, J., & Chou, L. (2020). Effect of expectation and disconfirmation on post exposure product evaluations: an alternative interpretation, *Journal of Applied Psychology*, *62* (4), 480-486.

Liu, S., Wu, I., & Yu-Buck, S. (2021). Equity and disconfirmation perceptions as influences on merchant and product satisfaction. *Journal of Customer Research, Volume 16* (3), 372-383.

Mweene and Chikumbi (2019). Customer Satisfaction and Price Acceptance in the Case of Electricity Supply, *International Journal Process Management and Benchmarking, 34*(7), 1-12.

Mugabi, W. S., Kayaga, A., & Smout, M. (2017) Relative importance of service quality. *Journal of Services Research, 4*(1), 93-116.

Mugabi, G., Malama, A., Mudenda, P., Ng'ombe, A., Makashini, L., Abanda, H. (2017). The effects of the introduction of prepayment meters on the energy usage behaviour of different housing consumer groups in Kitwe, Zambia. *AIMS Energy 2* (3), 237–259.

Nawawi, P., Kasuma, J., Kanyan, A., Brodie, B., Roney, P., & Gregory, M. (2023). Intention to use e-commerce payment: empirical evidence among consumers in sarawak.. https://doi.org/10.15405/epsbs.2023.11.02.50

Oliver, R. L. (1980). *Satisfaction: A Behavioral Perspective on the Consumer* (2nd edn.). New York: M.E. Sharpe, Inc.

Quayson D. M., Kyei., S., & Nsiah, P. (2015). Care and maintenance of ocular diagnostic drugs in eye care facilities in 'Ghana'. *Journal of Patient Safety & Infection Control, 7*(3),72-87

Ogujor & Otasowie, 2015). Voltage standing wave ratio measurement and prediction. *International Journal of the Physical Sciences, 4*(11), 56-78

Rahi, B., & Ghani, J. (2019). Multi-channel service retailing: the effects of channel performance satisfaction on behavioral intentions. *Journal of Retailing*, *82*(4), 376-7.

Savelli, H. V., Vaidyanathan, R., & Aggarwal, P. (2019). Who is the fairest of them all? An attributional approach to price fairness perceptions. *Journal of Business Research*, *56*(6), 453-463.

Schuh, S. & Stavins, J. (2015). How Consumers Pay: Adoption and Use of Payments. *Federal Reserve Bank of Boston, 12*(2), 1-35.

Stavins, J. (2018). Consumer preferences for payment methods: Role of discounts and surcharges. *Journal of Banking & Finance, 94* (8), 35-53.

Sinha, G., Wong, C. H., Tan, G. W. H., Ooi, K. B., & Lin, B. (2020). Mobile shopping: the next frontier of the shopping industry? An emerging market perspective. *International Journal of Mobile Communications*, *13*(1), 92-112.

Singh, I., & Singh, S. (2017). Framework for targeting high value customers and potential churn customers in telecom using Big Data Analytics. *International Journal of Education and Management Engineering*, *7*(1), 36-45.

Solomon, H., Yuan, L. W., Iqbal, S., Hussain, R. Y., & Ali, S. (2016). Impact of Price on Customer Satisfaction: Mediating Role of Consumer Buying Behaviour in Telecom Sector. *International Journal of Research*, *6*(04), 67-87

Sok, A., McKinney, V., Yoon, K., & Zahedi, F. M. (2020). The Measurement of Web- Customer Satisfaction: An Expectation and Disconfirmation Approach. *Information Systems Research, 13* (3), 296-315.

Sualihu, M., & Rahman, R. (2014). The impact of switching costs on the customer satisfaction–loyalty link: Mobile phone service in France. *Journal of Services Marketing, 15,* 35–48.

Sun, Y., & Xing, J. (2022). The impact of social media information sharing on the Green purchase intention among Generation Z. *Sustainability*, *14*(11), 68-79.

Taghikhah, 2021). Satisfaction with internet- based services: The role of expectations and desires. *International Journal of Electronic Commerce, 7*(2), 31-49.

Waldron, E. (2014). The effect of customer satisfaction relating commitment dimension and triggers on customer retention. *American Marketing Association, 34*(8), 89-122

Willis, L., Lee, E., Reynolds, K. J., & Klik, K. A. (2020). The theory of planned behavior and the social identity approach: A new look at group processes and social norms in the context of student binge drinking. *Europe's Journal of Psychology, 16*(3), 357-383.

Yi, B., & Nataraajan, E. (2018) An investigation of the determinants of customer satisfaction. *Tourism Analysis,* 8(2), 193-196.

Zhou, G., Lv, X., Yin, W., Zhao, W., Jin, F., & Dong, J. (2016). The electricity bill charge risk analysis in power supply company based on a novel predicting method. In *2016 IEEE Innovative Smart Grid Technologies-Asia (ISGTAsia)* (pp. 879-883). IEEE

Zinman, S. D. (2018). Service encounters and service relationships: Implications for research. *Journal of Business Research, 20*(8), 13-21.

APPENDIX

RESEARCH QUESTIONNAIRE FORM

UNDERSTANDING CUSTOMER BEHAVIOUR IN PAYMENT OF UTILITY BILLS: A CASE STUDY OF THE ELECTRICITY COMPANY OF GHANA LIMITED

Dear Participants,

I am carrying out research for academic purposes on "UNDERSTANDING CUSTOMER BEHAVIOUR IN PAYMENT OF UTILITY BILLS: A CASE STUDY OF THE ELECTRICITY COMPANY OF GHANA LIMITED". In order for me to complete my study, I kindly appeal to you to fill this questionnaire which will take approximately 15 minutes to complete. Your responses will be used only for research purposes and shall be treated with the strictest confidence. Thank you for your participation in the success of my studies.

SECTION A: Demographic Information

Please respond to the following statements by ticking (√) one answer from each question that applies to your circumstances.

1. Gender?
   ( ) Male ( ) Female

2. Please indicate your age group.
   ( ) 18-25years ( ) 26-33years ( ) 34-41years ( )above 42 years

3. Educational level?
   ( ) BECE/SSSCE Certificate
   ( ) Diploma
   ( ) HND
   ( ) First Degree

( ) Master's Degree
Others (Please specify) ……

4. Position…….

5. How long have you been a customer of the ECG?
( ) Less than 1year ( )2-6years ( )7-11years ( )8-12years ( )above 12years

SECTION B: How does reliability and flexibility of payment of utility bills influence customer behavior at ECG?

Please indicate the extent to which you agree or disagree with the following statements. Answer by ticking **(√) only one** answer in each case. Use the scales below as a guide.

Strongly Disagree (SD)

Disagree (D)

Neutral (N)

Agree (A)

Strongly Agree (SA)

Questions	SD	D	N	A	A
1. The payment systems provided by ECG are reliable for consistent and timely transactions					
2. The availability of multiple payment options by ECG has positively influence my payment behaviour					
3. Frequent system downtimes during payment processes discourage me from paying on time.					
4. The flexibility to choose payment channels (e.g., mobile, bank, office) improve my willingness to pay.					
5. The accuracy of ECG bills increases my trust and commitment to timely payments					
6. Errors in utility bills discourage my payment compliance					
7. Payment platforms are easily accessible at all times					
8. Transparent billing practices motivate me to pay utility bills on time.					
9. Automated payment reminders from ECG improve my compliance with utility payments.					

SECTION C: How does convenience of payment of utility bills influence customer behavior

Questions	SD	D	N	A	A
1. Online payment methods provided by EC are easy and convenient to use.					
2. The proximity points encourages me to pay my utility bills on time					
3. The time taken to process is convenient and fits into my daily schedules					
4. Mobile money services make it convenient to pay my ECG utility bills					

5. Efficient queue management at ECG offices makes in-person payments stress-free					
6. Having 24/7 payment options increases my likelihood of paying utility bills on time					
7. The payment instructions provided are clear and easy to follow					
8. Integration of ECG payments with platforms like banks or apps enhances convenience.					
9. Efficient customer support during difficulties increases my satisfaction					

SECTION D: Challenges in utility bills Payment and Solutions

Questions	SD	D	N	A	SA
1. The cost of utility bills is a major challenge affecting my payment compliance					
2. I am not fully aware of all the available payments offered by ECG					
3. Technical issues with payment platforms discourage me from making timely payments					
4. Long queues at ECG payment centers are a significant challenge for me.					
5. Lack trust in some payment systems due to potential errors or fraud					
6. Language barriers make understanding the payment process challenging					
7. Digital enhancements (e.g., apps, user-friendly platforms) would make payments easier.					
8. Frequent communication from ECG about payment processes and options can improve compliance					
9. Providing incentives (e.g., discounts for early payments) would encourage me to pay on time.					

Please do you have anything else to say?

……

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……

……

Thank you for your view and time