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Impact of digital platforms on service worker income and satisfaction in the hospitality industry in South Africa

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Impact of digital platforms on service worker income and satisfaction in the hospitality industry in South Africa

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A research report submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Management in the field of Digital Business

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ABSTRACT

Mobile applications in South Africa are enabling consumers to tip services workers digitally. The tip amount directly goes the service worker’s digital Telkom mobile network number.

Transitioning from cash to digital tips can enhance transparency and accountability, potentially improving the livelihoods of service workers who heavily depend on tips. However, challenges such as digital literacy, access to technology, and transaction fees make it difficult for widespread adoption.

This study investigates current digital tipping practices, evaluates their impact on service workers' income, and offers recommendations to make digital tipping systems more inclusive and effective.

KEYWORDS

Digital tipping, hospitality sector, financial inclusion, technology adoption.

DECLARATION

I, Malesela Solomon Mapeka, declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Management in the field of Digital Business at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Name: Malesela Solomon Mapeka Signature: 

Signed at …Pretoria……

On the 23…….. day of …0ctober…… 2025

DEDICATION

I dedicate this thesis to my beloved parents and family, whose unwavering love, support, and sacrifices have been the foundation of my journey.

To my parents, Ephraim and Gladys Mapeka, your endless encouragement, patience, and belief in me have given me the strength to persevere through every challenge. Your hard work and sacrifices inspire me every day, and I am forever grateful for all that you have done.

To my family, thank you for your constant support, understanding, and motivation. Your love has been my greatest source of strength, and this achievement is as much yours as it is mine.

This work reflects your love, and I dedicate it to you with all my heart.

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CHAPTER 1. INTRODUCTION

1.1 Statement of purpose

According to Lynn (2014), In numerous countries globally, consumers provide voluntary monetary payments, referred to as "tips," to service workers who have assisted them. While the magnitude of these payments differs among countries, sub-cultural groups, individuals, service occupations, and specific service interactions, they frequently constitute significant amounts of money. Tipping typically raises the expenses of dining at restaurants by 10–20 percent and increases the cost of taxi rides by 10–15 percent (Lynn & Lynn,2004).

Tipping is common in South African restaurants, with cash tips given immediately and card tips potentially delayed (Ngindana, 2020). People tip to help servers, reward good service, and follow social norms, as noted by Lynn (2014). However, more research is needed to fully understand these motivations. There is a need for clearer standards and further research into the impact of different tipping systems. While cash tips provide immediate benefits, card tips create uncertainty about when servers receive their money.

1.2 Background of the study

A tip is defined as a ‘voluntary gift of money given in appreciation for service received and retained by the person giving the tip’. Tipping is an illogical economic action, as consumers tip through choice rather than being ethically or legally bound as patrons to tip. (Saayman,2020).

As per section 51(1) of the Basic Conditions of Employment Act, 75 of 1997, In South Africa, there is no regulation governing tipping, but the 2017 Sectoral Determination under the Basic Conditions of Employment Act mandates that employers must pay at least the minimum wage, excluding tips. Tipping is voluntary and based on the quality of service, with customers encouraged to tip

in appreciation of good service. Tips can be a significant part of the income for service workers like waiters, porters, game guides, and trackers, and can be given in cash or included in the bill.

The Basic Employment Act of 1997 further continues to say tips are not guaranteed and can vary depending on consumers' subjective experiences and biases, making them an unreliable and variable source of income. While wages are a reliable and regular source of income, tips are inconsistent and often insufficient to guarantee financial stability. Furthermore, tipping shifts the responsibility of supplementing salaries to the client rather than the employer, possibly intensifying social and economic inequalities in the service industry. Thus, the gap between tipping and salary payment highlights underlying issues of job security, equity, and employers' responsibility to fair labour standards.

1.3 Research problem

Tipping in South Africa's hospitality industry especially in restaurants is crucial due to low base wages, but it presents challenges like income imbalance and exploitation, worsened by inconsistent regulation and employer policies on tip distribution across the team. Digital point-of-sale machines and app-based service platforms have further complicated the process, highlighting the need for better tipping solutions, and ensuring direct tip payments to service workers to mitigate these issues and protect their earnings (Warren & Hanson, 2021; Wocke & Sutherland, 2008).

1.4 Research objectives

The primary objective of this study is to evaluate the feasible for South African hospitality to adopt digital tipping in restaurants. In light of the problem statement presented in Section 1.3, the study aims to achieve the following objective:

Assess the Feasibility of Direct Digital Tip Transfers: To determine whether it is practical and effective to enable customers to send tips directly to service workers through digital platforms.

1.5 Rationale

The rationale for this study stems from the need to evaluate the potential benefits and challenges associated with the adoption of digital tipping in South African restaurants. As digital payment systems become increasingly prevalent, understanding their impact on both operational efficiency and employee compensation is crucial.

Exploring the feasibility of direct digital tip transfers addresses the necessity of adapting modern technological solutions to traditional service practices. Given the rapid growth of digital payment methods, assessing their compatibility with existing restaurant operations and customer preferences is vital for ensuring smooth integration and maximizing benefits.

The restaurants sector is ideal for this study because is heavily relies on the tipping as a key components employee compensation, making it crucial to explore how digital tipping impacts worker earning financial stability. According to **Saloomeh Tabari et al(2024**), tipping plays a significant role in in the income of service workers and influences both employee motivation and service quality.

In the restaurants, the term service worker refers to employees who are directly involved in providing the customer with the service eg waitress etc. waitress take orders, serve food and drinks, and ensure customer satisfaction. Individuals who provide various services to customers in settings such as hotels, restaurants, resorts, and other similar establishments. Their roles often include front-line positions such as receptionists, concierges, waitstaff, housekeepers, and other customer-facing roles that ensure the satisfaction and comfort of guests (Lashley, C., & Morrison, A. (2000)).

1.6 Delimitations of the study

Delimitations define the boundaries of the study, specifying what will be included within its scope and what will be excluded.

In scope.

1. The service workers that are in hospitality industry and mainly the study will be concentrating on waiters and waitress.
2. The technology aspect of tipping

Out of scope

1. The service workers that are not in hospitality industry will be excluded. However, this doesn't mean that the solution/proposal cannot scale up to them.
2. Both take away and sit-down fast-food restaurants (Macdonald, Steers, Nandos etc) are out of the scope since in South Africa there is no tipping mechanism in those fast-food restaurants.

1.7 Definition of terms

Term	**Definitions**
Service workers	Individuals who provide various services to customers in settings such as hotels, restaurants, resorts, and other similar establishments. Their roles often include front-line positions such as receptionists, concierges, waitstaff, housekeepers, and other customer-facing roles that ensure the satisfaction and comfort of guests (Lashley, C., & Morrison, A. (2000)).
Tipping practices	The social and economic custom of voluntarily giving additional monetary

	compensation to service workers, typical in the hospitality, food service, personal care as reward for perceived service quality. Tipping practices varies across cultures and are influenced by factors such as social norms, economic conditions, and legal frameworks (Lynn,2004)
Digital divide	The disparity between individuals or groups in access to and use of digital technologies, such as the internet and computers, due to socioeconomic, geographic, educational, and infrastructural factors. This divide affects opportunities for education, economic participation, and social inclusion (Van Dijk, 2020).
Digital inclusion	The practice of incorporating gratuities as a mandatory or built-in component of service charges, wages, or pricing structures within service industries. This approach aims to standardize tipping practices, reduce income variability for workers, and promote fair compensation while minimizing customer discretion in gratuity decisions (Azar, 2020).

1.8 Assumptions

The below assumptions have been made.

1. South Africans believe that the tipping is for a maximum of 10% of the bill.
2. Tipping is only for sit-down restaurants only and not for fast-food restaurants.

1.9 Chapter Outline

Chapter	**Descriptions**
Chapter 2	It reviews what others have already discussed about tipping and introduces the frameworks regarding this study.
Chapter 3	This chapter will describe the intended methodology for carrying out this investigation, including details regarding the data collection process.
Chapter 4	This chapter aims to present results from collected data from a survey via wits Qualtrics tool (https://wits.eu.qualtrics.com/login).
Chapter 5	This chapter presents SPSS data results on the analysis of digital tipping framework in South Africa.
Chapter 6	This chapter focus on wrapping up the finding from chapter 4 and 5 and focus on summarizing the study's conclusion.

CHAPTER 2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

This chapter provides insight into Digital tipping through the available literature, discussing the origin of tipping, evolution, and definitions of Digital tipping. This section will also investigate the social economic on digital tipping and the adoption of digital tipping in the hospitality industry and focusing on the restaurants.

2.2 Research background framework

The contributions of service employees, who guarantee client pleasure through face-to-face encounters and service delivery, are crucial to the service industry, which includes businesses like hotels, restaurants, and resorts (Lashley & Morrison, 2000). Accordingly, tipping has long been used as a way to recognise good service and is a socioeconomic practice that is ingrained in hospitality cultures all across the world (Lynn, 2004). However, disparities in tipping customs among nations and customer segments have sparked worries about income disparity and uneven frontline worker pay schemes.

Digital inclusion—the incorporation of digital tools and procedures into service delivery and remuneration models—has surfaced as a viable remedy for tipping inconsistencies as digital transformation reshapes businesses. Tipping inclusion, which incorporates tips into wages or service fees, is becoming more and more popular as a more equitable and open method of paying employees (Azar, 2020). The digital gap, which is the term used to describe unequal access to digital technology based on socioeconomic, educational, or geographic differences, is one of the larger challenges with digital infrastructure that this shift also touches on (Van Dijk, 2020). These disparities impede the uptake of contemporary service technology and compensation schemes in digitally marginalised areas, hence perpetuating pre-existing economic disparities.

Service workers have an essential role in providing customer satisfaction through direct communication in hospitality industries such as hotels and restaurants (Lashley and Morrison, 2000). Tipping, while historically seen as a voluntary reward for good service (Lynn, 2004), frequently results in inconsistent revenue and inequalities among employees. The SERVQUAL model (Parasuraman et al., 1988) provides a detailed framework for assessing service quality across five key dimensions: tangibles (physical facilities and appearance), reliability (ability to perform consistently), responsiveness (willingness to assist), assurance (staff knowledge and courtesy), and empathy (caring and personalised attention). These characteristics impact customers' perceptions of service quality and tipping behaviour. Similarly, the Expectancy Disconfirmation Theory (Oliver, 1980) describes customer satisfaction as the result of a comparison of expected and perceived service performance—if the service exceeds expectations, positive confirmation leads to satisfaction, which is frequently expressed through tipping. To better understand tipping patterns, the Theory of Planned Behaviour (Ajzen, 1991) emphasises how attitudes, subjective norms, and perceived control influence customer intentions, whereas Equity Theory (Adams, 1965) emphasises the role of perceived fairness in reward distribution. As digital transformation reshapes hospitality, innovations such as tipping inclusion—which incorporates gratuities into wages—are emerging as equitable pay models (Azar, 2020), though the digital divide (Van Dijk, 2020) continues to limit implementation in underserved areas, exacerbating wage disparities and access inequality.

2.2.1 *Historical Background Digital Tipping practices*

In numerous societies, tipping is currently a social and economic practice that reflects the dynamics of labour, service, and gratitude. Tipping, which has historically been connected to in-person service events, has changed dramatically in reaction to changes in consumer behaviour and technology. According to Sallaz (2009), the introduction of digital tipping represents an important change in the way gratuities are conceived, given, and viewed in modern economies.

Tipping's origins can be found in Europe in the 17th century, when it first appeared as a token of appreciation amongst wealthy people and then gradually spread across the entire population (Segrave, 1998). Tipping became popular in the United States after the Civil War and is sometimes blamed for fostering racial and social inequalities, particularly in sectors that depend on cheap or formerly enslaved labour (Sallaz, 2009). The controversial position of tipping in contemporary labour economies was made possible by this historical background.

As digital payment channels developed in the early 21st century, the shift to digital tipping really got underway. The initial wave of electronic gratuity alternatives, usually in the form of suggested tip amounts on printed receipts or point-of-sale terminals, were brought about by the increasing use of credit and debit card readers in restaurants and other service venues. But with the rise of app-based business models and mobile payment platforms, especially in the 2010s, the scene underwent a significant change.

Due to the popularity of app-mediated service employment made possible by companies like Uber, Lyft, DoorDash, and Instacart, tipping has become an essential but frequently hidden component of worker compensation. Tipping is usually made easier in these digital ecosystems after the service is rendered using app interfaces, frequently with certain percentages or sums recommended by the platform. New kinds of social pressure and behavioural tipping have resulted from this change, since digital design affects customer tipping behaviour in ways that were previously impossible in cash-based contexts (Rosenblat & Stark,2016).

Additionally, digital tipping has spread beyond of conventional service sectors. The lines between tipping, support, and crowdfunding are confused because virtual "tips" or donations are a significant source of income for content creators on websites like Twitch, YouTube, and Patreon. Tipping was redefined as a more common and informal economic activity with the emergence of peer-to-peer

payment apps like Venmo and Cash App, which further normalised digital gratuities in informal and interpersonal transactions.

Researchers have pointed out that although digital tipping is convenient and may lead to more frequent and larger tips, it also presents issues with labour fairness, platform control, and transparency (Schneider & Harknett, 2020). The precarity of the gig economy and the automation of gratuity ideas create serious concerns regarding the fairness and voluntariness of tipping in digital settings. Digital tipping's growth reflects larger economic, cultural, and technological shifts in the service and creative industries. The consequences of tipping practices continue to be a crucial area of research at the interface of labour studies, human-computer interaction, and digital economics since digital platforms continue to mediate the relationship between workers and consumers.

2.2.2 *Historical background in Digital Divide in relation to Digital Tipping*

It is widely acknowledged that the digital divide, which is often described as the disparity in access to and efficient use of information and communication technologies (ICTs) across people, communities, or geographical areas, prevents equitable participation in the digital economy (van Dijk, 2020). Early discussions of the digital divide focused on having physical access to hardware and internet infrastructure, but more recent interpretations have broadened to encompass digital literacy, affordability, and the ability to use digital tools in a meaningful way (Warschauer, 2004). This disparity has significant effects on how various socioeconomic groups accept and use digital advances like tipping systems.
In service-based economies, digital tipping—a type of financial transaction made possible by digital platforms or point-of-sale technologies—has become a crucial trend. It has received praise for its ease of use, traceability, and capacity to guarantee workers receive just compensation, especially in gig economies mediated by apps (Rosenblat & Stark, 2016). Digital tipping's uptake and efficacy vary depending on the situation, though. The advantages of digital tipping may

not be equally spread in nations and communities with pronounced digital disparities, like South Africa.

The digital divide in South Africa is influenced by ongoing gaps in financial inclusion, digital literacy, and access to the internet. A significant section of the population—especially those living in rural or economically disadvantaged areas—remains digitally excluded despite improvements in mobile connectivity (Gillwald et al., 2019). This presents difficulties not only for customers who might not have access to digital platforms or mobile payment methods, but also for service providers who are unable to fully utilise or profit from digital tipping systems.

Additionally, tipping is frequently a major source of income in the informal and hospitality industries, where labour precarity and the digital divide collide. Employees who lack cell phones, digital banking, or reliable internet connectivity could not be able to receive tips via digital channels, which would further embed inequality in the economy. The promise of direct digital tipping in app-based independent employment, like ride-hailing, like Uber claims, depends on both the worker's and the customer's presumed digital literacy and access. In the absence of these conditions, digital tipping may unintentionally worsen rather than reduce already-existing inequities (Schneider & Harknett, 2020).

The adoption of digital tipping systems in developing nations needs to be handled sensitively to digital inclusion considering these dynamics. In addition to promoting technology use, addressing the digital gap is crucial to ensure that digital tipping achieves its potential to enhance worker well-being and equity in service economies.

2.2.3 Historical Background on Digital Inclusion impact in relation to Digital Tipping

In the twenty-first century, digital inclusion—the ability of people and communities to access and use information and communication technologies (ICTs) efficiently—has become a crucial element of social and economic fairness. It includes the ability to fully engage in the digital economy, digital devices, digital literacy, and reasonably priced internet access (OECD, 2020). Digital inclusion

has become crucial for fair participation in labour and banking systems, particularly in tipping practices in the service industry, as digital transactions progressively replace cash-based exchanges.

Point-of-sale (POS) devices, mobile wallets, and business apps have made digital tipping more popular, which has been welcomed for its simplicity and capacity to increase gratuities. But this development has also exposed and, in certain cases, deepened already existing digital divisions. The full advantages of digital tipping systems may not be available to service workers who lack sufficient digital literacy or infrastructure, especially in low-income or rural areas (Gurumurthy & Chami, 2019). For example, in South Africa, socioeconomic gaps, high data costs, and poor broadband infrastructure all contribute to digital exclusion, which impacts more marginalized workers in the hospitality industry (Gillwald et al., 2018).

In the past, tipping was a cash-based behaviour that let customers give service workers express appreciation. The global COVID-19 epidemic and fintech developments accelerated the migration to digital payments, which required digital access and skills for both workers and consumers (UNCTAD, 2021). Digital technologies have the ability to improve tip distribution transparency and give workers digital records that can improve financial security in situations where they are easily available and fairly integrated. However, digital tipping could contribute to inequality in situations where digital inclusion is lacking, especially if tips are sent via platforms or employers who manage payout (Schneider & Harknett, 2020).

In South Africa, the example of app-based services like Mr. D Food and Uber shows both promise and worry. Although these systems assert that they send all tips directly to employees, concerns about user awareness, verification, and implementation consistency still exist. Furthermore, it can be challenging to take advantage of digital gratuities because not all employees have access to bank accounts or digital wallets (FinMark Trust, 2020). Therefore, deeper digital inclusion regulations and practices are necessary for the efficiency and equity of digital tipping systems.

A critical confluence of technology, labour rights, and socioeconomic justice is highlighted by the relationship between digital inclusion and digital tipping. Addressing infrastructure gaps, encouraging digital literacy, and putting in place legislative measures that give priority to fair results in the digital economy are all necessary to guarantee that all workers can access and benefit from digital tipping.

2.2.4 *Diffusion of Innovations Theory*

Sahin (2006) discussed the Diffusion of Innovations theory that was discovered by Rogers (2003) particularly in the context of educational technology. The theory explains how new ideas and technologies spread within a society or social system over time. It identifies four key elements that influence the diffusion process: the innovation itself, communication channels, time, and the social system. Rogers' (2023) model is highly regarded in various disciplines and is especially relevant in understanding how technology is adopted in educational settings. It emphasizes the importance of understanding the attributes of innovations—such as relative advantage, compatibility, complexity, trialability, and observability—in predicting the rate of adoption.

Rogers (2003) describes innovation as an innovation is an idea, practice, or project that is perceived as new by an individual or other unit of adoption. An innovation may have been invented a long time ago, but if individuals perceive it as new, then it may still be an innovation for them. In context with digital tipping, the idea already exists in the uber industry as per uber website where the tips go directly to the driver’s account however in the restaurants industry the idea does exist at all.

Although it has already been established in ride-sharing services like Uber, digital tipping which includes employing technology like mobile applications, QR codes, and contactless payments to tip service workers is a new development in the restaurant business. Rogers' Diffusion of Innovations theory states that a number of characteristics of digital tipping affect its uptake. Compatibility-wise, it fits in

nicely with current digital payment trends, although businesses that choose cash-based systems might object.

If there are too many steps in the process, its complexity could be a barrier, hence usability is crucial. By providing sample features or optional tipping, applications or point-of-sale systems encourage customers to try new things and increase trialability. Additionally, visibility is important; customers are more likely to adapt when they see others tipping digitally or when they receive encourages from apps.

The popularity of digital tipping is greatly influenced by formal (e.g., marketing, employer training) and informal (e.g., social media, peer referrals) communication channels. For instance, tipping features that Uber drivers directly explain to customers frequently have a greater impact on their behaviour than corporate standards alone.

Industry-specific adoption stages differ eateries are still in the early adopter stage, while ride-sharing services are getting close to saturation. Lastly, implementation is impacted by the social structure of the restaurant industry, which includes managerial attitudes, customer demographics, and technical readiness. Digital tipping is more likely to be successful in tipping-heavy societies.

Diffusion of innovation technology is relevant to my study because it addresses more into new technologies and platforms for digital tipping and how they can be adopted.

2.2.5 *What are the current practices and challenges associated with tipping in South Africa's restaurant sector, particularly in relation to digital inclusion and digital divide?*

Due to low salaries and inconsistent labour protections, tipping is still a common and significant part of service workers' income in South Africa's restaurant industry. Tipping has always been done in cash, allowing for quick and direct

payment. However, new forms of digital tipping have emerged as a result of the slow transition to digital payment systems, which has been pushed by the use of contactless cards, point-of-sale (POS) devices, and mobile payment apps, especially in formal and urban dining restaurants

Customers are often asked to tip using electronic systems when they pay with their cards as part of the current digital tipping practices; certain systems allow for established or customisable tip amounts. Customers can tip drivers directly through the app for delivery services like Mr. D Food and Uber Eats. Through digital prompts and behavioural requests, these technologies have simplified tipping and, in certain cases, raised the likelihood and value of gratuities.

However, because of the difficulties associated with digital exclusion, these changes are not equally experienced. Many service workers have barriers to digital banking, especially those working in informal restaurants or in rural.These include a lack of digital literacy, digital banking services, reliable internet connectivity, and smartphone access (Gillwald et al., 2019). Therefore, in a cashless environment, service workers who are unable to use digital tipping systems are frequently not given any tips at all.

Customers are impacted by the digital divide as well. Not every customer is prepared or willing to adopt digital payment methods, especially in low-income areas where cash is still widely accepted. Furthermore, there is little information available about how digital tips are managed, including whether they are distributed in full to service workers, at the discretion of management which could lead to suspicion and even exploitation (Wocke & Sutherland, 2008).

Additionally, some companies maintain control over the distribution of digital tips due to the lack of standard labour regulations, which may result in unfair distribution or expropriation.

In this regard, fair participation in digital tipping practices requires digital inclusion, which entails making sure that everyone has access to affordable internet, suitable devices, financial services, and digital literacy. The use of digital tipping might worsen socioeconomic gaps in South Africa's restaurant industry if systemic actions are not made to bridge the digital divide.

hypotheses 1: Unless paired with focused ways to encourage digital inclusion and minimise the digital divide, the introduction of digital tipping systems in South Africa's restaurant industry runs the risk of widening already-existing socioeconomic gaps, despite the possibility of increased convenience and transparency.

2.2.6 How *do digital point-of-sale (POS) systems and app-based platforms influence the transparency, efficiency, and fairness of tipping practices within the South African hospitality industry?*

Due to low salaries and inconsistent labour protections, tipping is still a common and significant part of service workers' income in South Africa's restaurant industry. Tipping has always been done in cash, allowing for quick and direct payment. However, new forms of digital tipping have emerged as a result of the slow transition to digital payment systems, which has been pushed by the use of contactless cards, point-of-sale (POS) devices, and mobile payment apps, especially in formal and urban dining restaurants.

Customers are often asked to tip using electronic systems when they pay with their cards as part of the current digital tipping practices; certain systems allow for established or customisable tip amounts. Customers can tip drivers directly through the app for delivery services like Mr. D Food and Uber Eats. Through digital prompts and behavioural requests, these technologies have simplified tipping and, in certain cases, raised the likelihood and value of gratuities. However, because of the difficulties associated with digital exclusion, these changes are not equally experienced. Many service workers have barriers to digital banking, especially those working in informal restaurants or in rural. These include a lack of digital literacy, digital banking services, reliable internet connectivity, and smartphone access (Gillwald et al., 2019). Therefore, in a cashless environment, service workers who are unable to use digital tipping systems are frequently not given any tips at all.

Customers are impacted by the digital divide as well. Not every customer is prepared or willing to adopt digital payment methods, especially in low-income areas where cash is still widely accepted. Furthermore, there is little information

available about how digital tips are managed, including whether they are distributed in full to service workers, at the discretion of management which could lead to suspicion and even exploitation (Wocke & Sutherland, 2008). Additionally, some companies maintain control over the distribution of digital tips due to the lack of standard labour regulations, which may result in unfair distribution or expropriation.

In this regard, fair participation in digital tipping practices requires digital inclusion, which entails making sure that everyone has access to affordable internet, suitable devices, financial services, and digital literacy. The use of digital tipping might worsen socioeconomic gaps in South Africa's restaurant industry if systemic actions are not made to bridge the digital divide.

hypotheses 1: Unless paired with focused ways to encourage digital inclusion and minimise the digital divide, the introduction of digital tipping systems in South Africa's restaurant industry runs the risk of widening already-existing socioeconomic gaps, despite the possibility of increased convenience and transparency.

Tipping practices in the South African hospitality sector have been increasingly impacted by digital point-of-sale (POS) systems and app-based platforms, which have introduced mechanisms that encourage increased transparency, operational efficiency, and possibly more equitable compensation for service workers. By facilitating real-time transactions, providing preset ideas for gratuities, and delivering traceable records that might reduce tip mismanagement or diversion, these digital systems simplify tipping. Furthermore, digitising gratuities can increase customer confidence and worker accountability while also improving employee pay predictability. However, the advantages of these systems are not available to everyone because of enduring digital gaps that emerge from socioeconomic differences, low levels of digital literacy, and unequal access to internet infrastructure, especially in low-income and rural areas. Therefore, wider initiatives to advance digital inclusion are necessary to realise the promise of digital tipping to guarantee equity and improve worker well-being. Digital tipping could unintentionally perpetuate current disparities rather

than be a catalyst for economic fairness in the hospitality industry if these underlying impediments are not addressed.

hypotheses 2: Digital tipping technologies improve transparency, efficiency, and fairness in South Africa's hospitality industry, but their success depends on digital inclusion, requiring efforts to close access and literacy gaps for fair worker participation.

2.2.7 *To what extent are digital tipping systems perceived by service workers and employers as feasible and beneficial in the South African context??*

Digital tipping in South Africa is viewed as a partially feasible and conditionally beneficial practice by service workers and employers, with its adoption shaped by varying levels of digital access, literacy, and infrastructure. In urban areas with better connectivity, digital tipping offers benefits such as ease of use, transparent earnings, and the potential for increased gratuities through app-based nudges. However, significant challenges exist in rural and economically disadvantaged areas, where many workers lack smartphones, bank accounts, or internet access, limiting both their ability to receive tips and customers' ability to give them. Limited digital literacy further hampers the effectiveness of these systems. While platforms like Uber claim to support direct tipping, concerns remain over employer control, lack of transparency, and whether tips actually reach workers. Employers may see digital tipping as a way to streamline payments and increase customer convenience, but skepticism around fairness and implementation persists. Social and cultural norms, especially in communities where cash tipping is customary, also influence acceptance. The restaurant industry, unlike ride-sharing services, is still in early stages of digital tipping adoption, facing more barriers related to system integration and worker readiness. Overall, digital tipping holds promise for improving income equity and efficiency in the service sector, but its success in South Africa depends heavily on addressing digital inclusion through improved access, education, and trust in digital financial systems.

hypotheses 3: Digital tipping in South Africa offers potential benefits for service workers and employers, but its adoption is hindered by challenges related to digital access, literacy, and infrastructure, especially in underserved communities.

2.3 Tipping frameworks

According to Gladwell (2000), The tipping point popularised the concept by shows how little changes may have big impact on big impact on society. Scheffer (2020) also investigated tipping points in complex systems demonstrating how the changes take place in society and the world. Policy makers can predict and make tipping implications (Tax, Security, privacy etc) changes before they unmanageable.

2.3.1 *Current tipping framework*

Lynn (2006) and Withiam (2006) indicate that tipping policies are characteristics of service products that can be perceived positively or negatively by consumers. Scholars have posited that tipping confers psychological advantages to tippers, including alleviation of anxieties regarding potential envy from servers (Foster, 1972; Lynn, 1994), mitigation of guilt associated with status and power disparities (Shamir, 1984), enhancement of social recognition and status for generous tippers (Lynn, 1997; Paules, 1991), augmentation of self-perceived autonomy (Shamir, 1984), and an increase in positive emotions derived from assisting servers (Shamir, 1984). However, tipping creates a distinction between the payment for services and that for associated products (e.g., food, accommodation, transportation, etc.).

Research on decision-making indicates that this separation of payments or losses heightens the psychological discomfort associated with those losses compared to the discomfort of a single loss of similar magnitude (Thaler, 1985). Furthermore, tipping imposes undesirable social pressures on consumers to relinquish funds they would prefer to retain (Crespi, 1947; Seagrave, 1998). While service charges and service-inclusive pricing have received less scholarly

attention compared to tipping, these policies certainly offer distinct psychological benefits and costs. The overall impact of these psychological benefits and costs should be evident in consumers' attitudes towards various policies.

The behavioural model for digital tipping uptake consumer reactions. As digital platforms suggest or set percentages to tip, the psychological benefits and risks become clearer. Digital tipping may raise social pressure and anxiety about loss by making tipping visible, regular, and difficult to avoid, confirming claims that separated payments increase discomfort (Thaler, 1985). Digital tipping's convenience and immediacy may boost tippers' autonomy, generosity, and social status. Therefore, the balance between psychological motivators and barriers may determine customer acceptance of digital tipping.

2.4 ANALYTICAL FRAMEWORK

An analytical framework is methodological strategy that defines important variables, create connections and ensuring systematic analysis. According to Miles et al. (2019), using analytical frameworks enhances the research validity by providing a clear structure for data interpretation and conclusions drawing. Common use of the analytical frameworks includes Thematic analysis for qualitative research, statistical model for quantitative research, this help the research to analyse their data using relevant tools

2.4.1 *The Tipping Motives Framework*

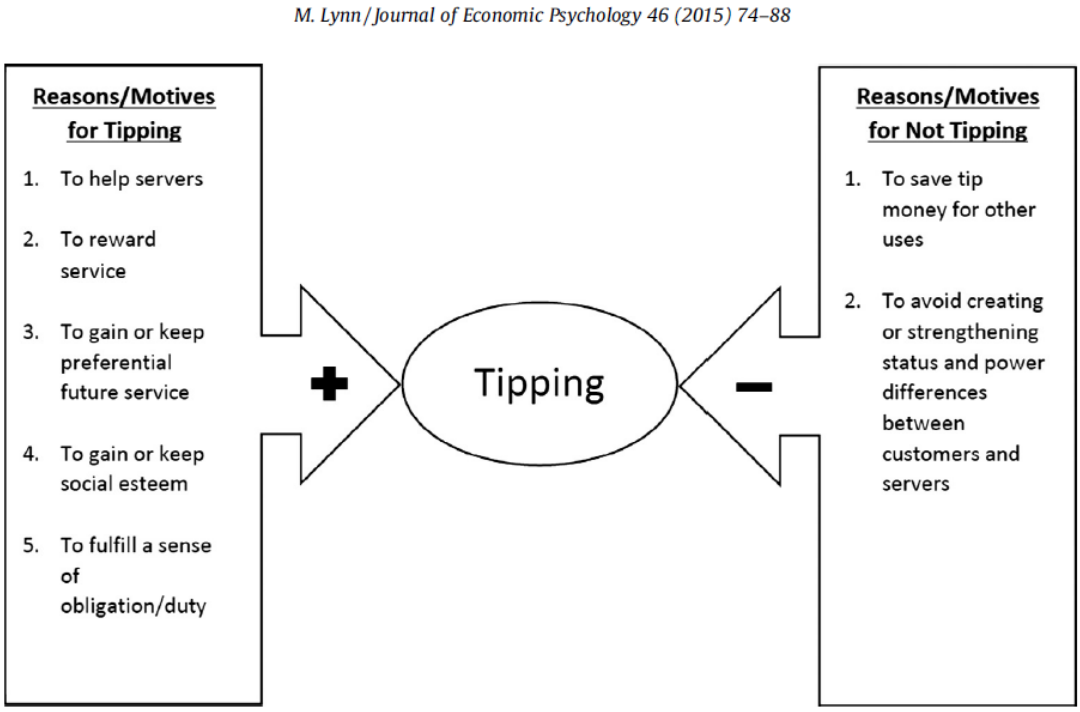
Tipping represents a conscious and intentional decision made by individual consumers. Consequently, the fundamental rationale is rooted in the motivations of individual humans. Cognitive and social processes are evidently involved in tipping; however, they function through motives, and their effects cannot be comprehensively understood without considering the underlying motivations for tipping. A review of the tipping literature uncovers various motives that have been proposed to explain this behaviour (Azar, 2010; Becker, Bradley, & Zantow, 2012; Lynn, 2009; Lynn & Grassman, 1990; Saunders & Lynn, 2010).

By selectively analysing this literature, I contend that tipping is mainly influenced by motivations to: (1) assist servers, (2) acknowledge service, (3) secure or sustain future preferential service, (4) achieve or uphold social esteem (approval, status, and/or affection), and (5) meet perceived obligations and responsibilities.

In contrast to the positive motivations for tipping, there are two main factors that inhibit this behaviour: (1) the intention to allocate the tip money for alternative purposes, and (2) a discontent with the status disparities that tipping suggests and reinforces. The various motivations for and against tipping constitute what I refer to as the Tipping Motives Framework, or TMF, which is illustrated in the diagram below.

The existence and significance of these proposed motives are substantiated by insights from the behavioural and experimental economics literature, along with theories and research from various other social science disciplines discussed in the following paragraphs. The following sections utilise this framework to examine various dimensions of the phenomena, specifically focussing on temporal and historical contexts, individual factors, situational influences, occupational variations, and national disparities in tipping

Figure 1: Tipping Motive framework (TMF).



Lynn's (2015) study, illustrates the psychological and social dynamics underlying consumer tipping behaviour. On the reason for tipping, five primary motivations are identified: helping servers, rewarding quality service, securing future preferential treatment, maintaining social esteem, and fulfilling a perceived obligation or duty. These reasons indicate that tipping is influenced not only by service quality but also by broader social norms and self-image considerations.

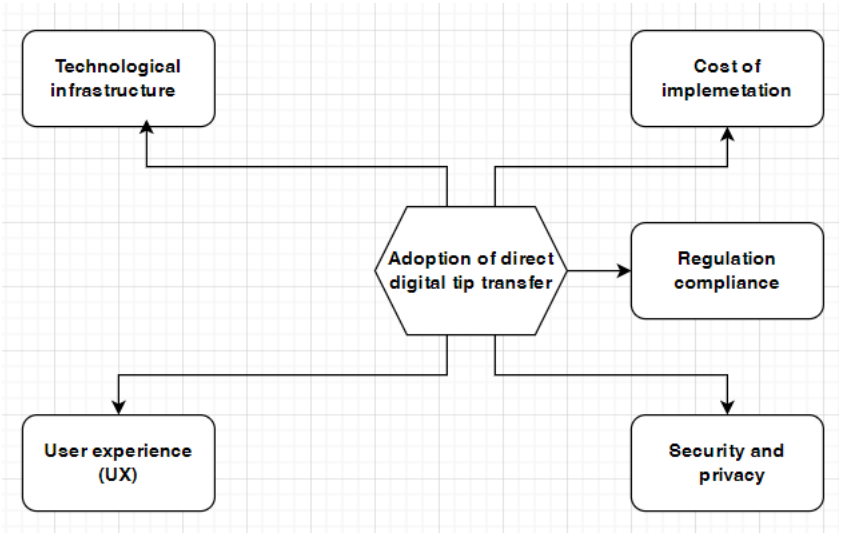
On the other hand, the decision not to tip is often driven by two main motives: conserving money for other uses and avoiding the reinforcement of social hierarchies between customers and service staff. This suggests that some consumers view tipping as a mechanism that perpetuates power imbalances. Taken together, these motives reflect the complex interplay between Selflessness, social expectation, and ideological resistance within the tipping context, providing valuable insight into consumer behaviour in service environments.

Helping service workers

A significant number of researchers have proposed that individuals who tip are driven by a wish to assist their servers (Azar, 2004; Frank, 1988; Saunders & Lynn, 2010; Schotter, 1979), with approximately seventy percent of U.S. consumers acknowledging that these motivations influence their own tipping behaviour (Lynn, 2009). While it contradicts economic models that posit self-interest as the main driver of human behaviour, this inclination towards tipping aligns with theoretical frameworks and empirical studies related to mirror neurones, empathy, and altruistic actions. Research in biology and psychology indicates that the act of observing others perform an action or display an emotion triggers the activation of the corresponding neurones associated with that action or emotion, occurring automatically and unconsciously.

2.4.2 *Conceptual Framework*

Figure 2: Tipping conceptual framework.



Driving the successful adoption of direct digital tip transfer is underpinned by the variables of the technological infrastructure, cost of implementing, user experience and security and privacy.

Independent variable

For the adoption of the framework to be successful, technological platforms need to be in place to run the application. The application should be user friendly for both the customer and the service worker. The third aspect to make the adoption successful will be to provide the security of data for both the service worker and the customer. The fourth element will be for taking into consideration the cost associated with the development and maintenance of the app and lastly the legal regulation of the transfer of funds into the app to mitigate money laundering activities.

Dependent variable

Adoption of the direct digital tipping: To outcome when the users accept to use the framework.

he Diffusion of Innovation theory provides a framework for analysing how consumers might adopt these channels, as it is a well-established theory in the study of new technology adoption. The framework also emphasises the significance of how the hospitality industry could integrate these channels.

These will help the service workers to be financially included in this model.

2.5 Conclusion of Literature Review

The evolution of tipping in South Africa's restaurant industry is examined in the sections above, with particular attention paid to the transition from traditional cash-based tipping to digital tipping via point-of-sale systems and smartphone apps. The digital divide reduces the efficiency of digital tipping, despite its advantages, which include simplicity, transparency, and maybe bigger gratuities. Many service workers are unable to receive tips through digital channels because they lack access to cell phones, digital banking, and dependable internet, particularly in rural and economically disadvantaged areas. This makes existing gaps in the service industry worse.

Making digital tipping fair requires digital inclusion, which guarantees equal access to digital tools and literacy. Rural communities are still excluded from digital tipping, even if urban places with excellent facilities are embracing it. Additionally, issues regarding the fairness of distribution and employer control over digital tips continue to exist. The Diffusion of Innovations Theory states that although digital tipping is popular in gig economies (such as Uber), South Africa's restaurant industry is still in the early stages of adoption due to issues with worker readiness and system integration.

Closing the digital divide and encouraging all workers to have access to technology and financial services are essential if digital tipping is to be successful. Instead of promoting equality and fairness in the sector, digital tipping could contribute to already-existing socioeconomic inequalities if these problems are not resolved.

CHAPTER 3. RESEARCH METHODOLOGY

This chapter described the research strategy used, the research methodology that was used, and the research design that was implemented. It went over the choices the researcher had, why those choices were made, and what they were. The research instruments used, the sampling strategy, the period of the study, and the research methods employed are all discussed.

The chapter wraps up with an examination of the ethical considerations involved.

3.1 Digital tipping research Paradigm

This paper followed quantitative research method. Quantitative research typically employs systematic methods to develop understanding. This method is frequently employed to gain insights into social phenomena (Leavy, 2014). Survey was conducted, and participants were targeted on social media platforms and word of mouth.

3.2 Research framework

The tipping motive framework was chosen as it discusses assisting service workers with extra cash. The study is about checking whether the service workers can receive tips directly in their wallet which will help them with extra income.

3.3 Research approach

Research approach comprised of data collection that involved data from surveys. Quantitative data was analysed using statistical methods which I used SPSS tool. Data analysis was performed and analysed using SPSS tool. Ethical considerations, including informed consent, confidentiality, and bias minimization, was strictly adhered to. The findings were summarized to highlight their implications for the service industry and future research directions, providing recommendations for businesses to optimize their digital tipping systems

3.4 Research design

The adoption of the direct digital tipping transfer was investigated through a diffusion of innovation approach design in this study. A quantitative component involved a survey with consumers and businesses to gather data on tipping habits, income levels, and demographic information. A time-series analysis of digital tipping data was conducted to identify trends and fluctuations over time.

A comparative case study technique was utilized to assess the adoption of the direct digital tipping transfer in different geographic regions or industries. By quantitative methodologies, this research intended to provide a thorough knowledge of the complex interplay between digital tipping, socioeconomic determinants, and potential implications for income inequality, small enterprises, and the gig economy.

3.5 Data collection methods

A research method serves as a mechanism for the collection or generation of data (Leavy, 2017). The most suitable research method for generating optimal data for the study is survey. The questionnaires survey were conducted via a website link which was wits Qualtrics (https://wits.eu.qualtrics.com/) and was sent to participants via WhatsApp messages and LinkedIn posts. Follow-up WhatsApp messages and calls were made for the participants to complete the survey and share it with some of their contacts lists.

The method above helped in terms of analyzing what the users and service workers know about the platform. It also helped in terms on seeing how ready the users are for the platform/framework that was proposed.

A descriptive statistical analysis of survey responses was performed to provide an overview of sample characteristics and variable distribution. Normality tests were then performed to determine the data's suitability for parametric statistical techniques. Following that, correlation analysis was performed to determine the strength and direction of the correlations between the important variables. Multiple linear regression was then used to test the hypotheses and determine

the predicted correlations between the independent and dependent variables. The chapter closed with a summary of the findings, stating whether or not each hypothesis was supported by the empirical data.

3.6 Population and sample

Digital tipping data were gathered from service workers, restaurants managers and customers/patrons. It was challenging to reach out to entire population in the country hence the sample data was collected and analysed. Data collection method that was used was sampling.
Two types of sampling exist: probability sampling and non-probability sampling (Elfil & Negida, 2017).

Probability sampling methods where all subjects in the target population have equal chances to be selected in the sample.
Non-probability sampling methods where the sample population is selected in a non-systematic process that does not guarantee equal chances for each subject in the target population.

3.6.1 *Population*

With the growth of digital platforms and cashless payment systems, digital tipping has grown more common and is revolutionizing the tipping industry. Nowadays, a large segment of the populace practices digital tipping, especially in service-related industries that make use of online and mobile payment platforms. Studies reveal that three factors impact digital tipping: ease of use, openness, and the incorporation of tipping features in digital user interfaces (Rosenbaum & Wong, 2022).

The change aligns with the current consumer's digital financial behaviour in terms of cashless transactions and electronic payment they perform on daily basis because of convenience and speed.

The target population for this study will include several key groups to comprehensively assess the feasibility and impact of adopting digital tipping in South African restaurants:
Restaurants customers who are the individuals that dine at restaurants and are potential users of the digital tipping systems and the purpose will be to gather insights on the customer attitudes toward digital tipping.

2. Service workers are the people who are serving the restaurants customers and the purpose will be to understand the potential financial impact of digital tipping on their earning and financial inclusion.

3. Restaurant managers and owners, who are the individuals that are responsible for decision-making and operational management in restaurants, and the purpose is to evaluate the practical considerations of implementing digital tipping, technological requirements, cost implications, and overall integration into existing operations.
4. Lastly, industry experts who are the consultants, financial analysts, and representatives from payments technology companies who have expertise in digital tipping and hospitality, and the purpose will be to gain expert perspectives on the feasibility, potential benefits, and challenges.

3.6.2 *Sample and sampling method*

In qualitative research methods and case study research designs, non-probability sampling is frequently employed (Taherdoost, 2016). According to Kuper et al. (2008), the sample should be large enough to include all aspects of the phenomena, and any restrictions on the sample should be adequately explained. In contrast to quantitative research methodologies, qualitative research typically lacks a pre-established sample size. Instead, sampling would cease until a point known as saturation, which is the moment at which the phenomenon under study has been fully understood (Kuper et al., 2008). Quota sampling is a non-random sampling approach that falls under the purposive sampling category. Participants are selected using pre-established criteria (Taherdoost, 2016).

The sample data was 215 responses with valid data of 177 and incomplete information of 38. So, 17.67% was not analysed as it was incomplete and 82.33% was analysed using SPSS.

3.7 The research instrument

The research element that was used in this study was survey questionnaires

The main research objective for digital tipping was as per below.

3.7.1 Research objectives.

1. Assess the Feasibility of Direct Digital Tip Transfers.
    a. Sub objective 1: To understand how the service workers will be willing to accept the digital tipping framework.
    b. Sub objective 2: To understand the customers' willingness of tipping the service workers directly.

3.8 Procedure for data collection

Questionnaires were sent via email, and the survey link was posted on professional social media platform (Linkedin) and via email. Follow up or reminders were sent to the participants to complete the survey. Identifications and permissions for the participants were obtained. Drafting of the standard questions and survey was constructed based on the objective from chapter 1 section 1.4.

3.9 Data analysis strategies and interpretation

As this study is more into quantitative research, the data analysis that was used is statistical method where patterns were analysed analysis and interpretations were done via a SPSS software (Braun & Clarke, 2006).

Possible limitations and challenges of the study

The below are the possible anticipated limitations.

1. The sample data results were from the employees and might not be the true reflections as they might be afraid to be honest.
2. Respondents might not be honest to other questions as they might feel that they will be exposed even though the survey is anonymous.

3.10 Quality Assurance

3.10.1 *Transferability*

Bryman (2012) characterises transferability as the capacity for findings from a specific study context to be applicable to other situations or to facilitate the generalisation of results. This study will examine digital tipping within the hospitality sector, with a primary emphasis on restaurants. The study can also be transferable to other industry like car wash, bar attendance and other tippable industry.

3.10.2 *Credibility*

According to Lincoln and Guba (1985), Credibility in a qualitative study on digital tipping refers to the trustworthiness and accuracy of the findings, ensuring they genuinely reflect participants' experiences and perceptions. To establish credibility, the researcher might employ techniques such as triangulation, which involves using multiple data sources or methods to cross-verify results, and member checking, where participants review and validate the findings to ensure they accurately represent their views. Prolonged engagement with participants and peer debriefing with colleagues or experts can further enhance the credibility of the study, ensuring the interpretations are robust and free from researcher bias. These strategies help ensure that the study's conclusions about digital tipping are both reliable and reflective of real-world practices.

3.10.3 *Dependability*

The researcher's capacity to evaluate their own work is a measure of reliability. Along with other researchers and the supervisor, the researcher will conduct a peer review of the analysis method to be used.

3.10.4 *Confirmability*

In a quantitative study on digital tipping, confirmability is the extent to which participant responses rather than the researcher's prejudices or presumptions have affected the findings.

3.11 Ethical considerations

This study was seeking information about the framework into digital tipping in hospitality industry especially in restaurants, and the information needed is not organizational confidential. Furthermore, the information required will comply with the POPIA. The information required from the companies will be low risk and should be available for public knowledge.

CHAPTER 4. PRESENTATION OF RESULTS / FINDINGS

4.1 Introduction

This chapter presented findings from a survey conducted using the Wits Qualtrics tool. It began by detailing the demographic characteristics of the respondents. The second section evaluated the research instrument, focusing on the reliability and validity of the measurement scales. This was followed by descriptive statistical analysis and normality testing. The chapter then presented a correlation analysis to explore relationships between variables. Next, multiple linear regression analysis was used to test the hypotheses. The chapter concluded with a summary indicating which hypotheses were supported.

4.2 Age and gender

A link to the survey was published and shared with the respondents via WhatsApp and emails contacts. Two hundred and fifteen responded to the survey. Data was downloaded from wits Qualtrics to Microsoft excel file. Data was then cleaned for further analysis and uploaded to SPSS statistics. The total respondents were 215, Data clean up revealed that thirty-eight (38) was incomplete and hundred and fifty-seven (177) is valid for analysis which is 82% of the total respondents. Therefore, final sample for this study comprised of 177 respondents.

Table 1: Gender demographics.

Variable	Category	Frequency	Percentage
Gender	Male	76	49.03%
	Female	75	48.39%
	Non-binary / third gender	1	0.66%
	Prefer not to say	0	0%
	Blank	3	1.94%
Total		155	100%

The gender contributions in the sample shows that majority were male respondents at 49.03%, followed by female respondents at 48.39%. the margins are not that much. The representation of non-binary/third gender individuals and those who preferred not to disclose is relatively small, making up 0.66% and 0% of the sample, respectively. Participants who didn't select any options are at 1.94% which is relatively small.

Table 2: Age demographics.

Variable	Category	Frequency	Percentage
Age	18-24	26	16.77%
	25-34	50	32.26%
	35-44	58	37.42%
	45-54	15	9.68%
	55 and above	5	3.23%
	Blank	1	0.65%
Total		155	100%

The age group contributions in the samples shows that the category of 25-34 and 35-44 are high contributors with 32.26% and 37.42% respective. Age group 18-24 followed at 16.77% which shows that the youngsters are also willing to participate in the digital tipping not forgetting the age group between 45-54 which stand at 9.68% and the lowest is age group of 55 and above which stand at 3.23% which most are sceptical about the use of fintech and lastly people who didn't choose the are standing at 0.65%.

Table 3: Provinces

Variable	Category	Frequency	Percentage
Province	Gauteng	110	70.97%
	Free State	0	0
	Eastern Cape	4	2.58%
	Kwazulu-Natal	1	0.65%
	Limpopo	24	15.48%
	Mpumalanga	5	3.23%
	Northern Cape	3	1.94%
	North-West	3	1.94%
	Western Cape	4	2.58%
	Blank	1	0.65%
Total		155	100%

The provincial contribution in the samples shows that participants in Gauteng are the majority which would like to use the digital tipping at 70.97% followed by Limpopo at 15.48%. Mpumalanga come third on 3.23% and followed by western cape and eastern cape both on 2.58%. northern cape and north-west are both on

1.94% and free state no one responded which make it to be at 0%. There was one respondent who didn't select any option which make it to be at 0.65%.

Table 4: qualifications

Variable	**Category**	**Frequency**	**Percentage**
Qualifications	No formal education	0	0%
	High school matric	38	24.52%
	College education	38	24.52%
	Underground degree	46	29.68%
	Post graduate degree	32	20.65%
	Blank	1	0.65%
Total		155	100%

The qualification group contributions to the survey show that participants with high school matric and college educations are both sitting on 24.52%. Participants with post graduate degree and underground degree are on 20.65% and 29.68% respectively. There is no one with No formal education completed the survey however there was one participate who did not select any option which account to 0.65%.

Table 5: Area type

Variable	Category	Frequency	Percentage
Area type	Metropolitan area (e.g., Johannesburg, Cape Town, Durban)	81	52.26%
	Rural area (e.g., farms, villages, small towns)	26	16.77%
	Urban area (e.g., mid-sized cities, townships)	47	30.32%
	Blank	1	0.65%
Total		155	100%

The area type contributions to the survey show that participants from metropolitan area account to more than half of the participants at 52.26% followed by urban area at 30.32%. the rural area stands at 16.77% and there is only one person who didn't select anything on this question which account to 0.65%.

Table 6: Familiarity with digital tipping

How frequent	Frequency (n)	Percentage (%)
Not familiar at all	73	47.10%
Slightly familiar	30	19.35%
Moderately familiar	31	20%
Very familiar	11	7.10%
Extremely familiar	8	5.16%
Blank	2	1.29%
Total	**155**	**100.0%**

Table 7: willing to learn digital tipping

Willing to learn digital tipping?	Frequency (n)	Percentage (%)
Yes	90	58.06%
Unsure/Maybe	55	35.48%
No	8	5.16%
Blank	2	1.29%

Total	**155**	**100.0%**

According to the table 6 above regarding the familiarity of digital tipping in South Africa, 47.1% of the participants are not familiar with digital tipping technology and on table 7 regarding the willingness of learning digital tipping, 58,06% of the respondents are willing to learning the digital tipping technology. 35,48%

4.3 Analysis of measurement scales

The measurement scales used in survey results were assessed via reliability and validity using Cronbach's alpha and factor analysis, respectively. Reliability analysis was conducted to check if the results meet certain criteria of Cronbach's alpha. Factor analysis was then conducted to ascertain the extent to which the items within a particular scale measure what they were intended to measure.

4.4 Summary of the results/findings

The measurement scales used in survey results were assessed via reliability and validity using Cronbach's alpha and factor analysis, respectively. Reliability analysis was conducted to check if the results meet certain criteria of Cronbach's alpha. Factor analysis was then conducted to ascertain the extent to which the items within a particular scale measure what they were intended to measure.

4.4.1 *Reliability analysis*

The reliability analysis was conducted using Cronbach's alpha in SPSS. The calculation of Cronbach's alpha coefficient was performed for each question to assess the internal consistency level. According to Cronbach (1951), Below is the table to summarise ranges of levels of internal consistency.

Table 8: Levels of internal consistency

Cronbach's Alpha	Internal Consistency
$\alpha \geq 0.9$	Excellent
$0.8 \leq \alpha < 0.9$	Good
$0.7 \leq \alpha < 0.8$	Acceptable
$0.6 \leq \alpha < 0.7$	Questionable
$0.5 \leq \alpha < 0.6$	Poor
$\alpha < 0.5$	Unacceptable

Source: Cronbach (1951)

4.4.2 *Results*

The elements included in this study for level of internal consistency are PSDig (performance of the product or service), AdoptPlat (adoption of digital tipping platforms), Adopt (digital tipping adoption), Know (digital tipping knowledge) Use (use of digital tipping), Service workers (Service workers adoption of digital tipping) and restaurants (Restaurants managers adoption of digital tipping).

4.4.3 *Reliability Statistics*

Table 9: Summary of reliability analysis

Variables	Cronbach's Alpha	Number of items	Results
performance of the product or service	0.900	16	Excellent
adoption of digital tipping platforms	0.817	3	Good
digital tipping adoption	0.584	6	Poor
digital tipping knowledge	0.953	5	Excellent
use of digital tipping	0.942	5	Excellent
Service workers adoption of digital tipping	0.924	8	Excellent
Restaurants managers adoption of digital tipping	0.930	5	Excellent

The findings of the reliability analysis are presented in table 9. Different levels of internal consistency were measured on SPSS. performance of the product or service resulted in Cronbach's Alpha of 0.900 which is excellent, adoption of digital tipping platforms resulted in good Cronbach's Alpha of 0.817. Digital tipping adoption resulted in poor Cronbach's Alpha value of 0.584. Digital tipping knowledge was also measured using SPSS and the Cronbach's Alpha of 0.953, this shows the excellent results. The use of digital tipping's Cronbach's Alpha resulted in 0.942 which is an excellent result. Lastly Service workers adoption of digital tipping and Restaurants managers adoption of digital tipping resulted in a Cronbach's Alpha of excellent with value of 0.924 and 0.930 respectfully.

4.4.4 *Validity analysis*

The validity analysis study uses exploratory factor analysis (EFA) to check or evaluate discriminant and convergent validity. Validity analysis is the process of evaluating the accuracy and approximately of a measurement tool, research methods or test to ensure it measures it measures what is meant to do (Creswell and Cresswell,2018). The statistical technique allows for in depth of examinations of the variables, it also assist in checking the patterns in the variables for items measured in the same construct.

A sample tests were performed to evaluate whether samples were good for conducting EFA. The assessments included the Kaizer-Meyer-Olkin (KMO) measure of sampling adequate and Bartlett's tests. Below is the table that shows the ranges of level of acceptance (Field, 2024).

Table 10: KMO and Bartlett's test of sphericity level of acceptance

KMO Value	**Level of Acceptance**
Above 0.90	Superb/excellent
0.80 to 0.90	Great
0.70 to 0.80	Good
0.50 to 0.70	Mediocre
Below 0.50	Unacceptable

Source (Field, 2024)

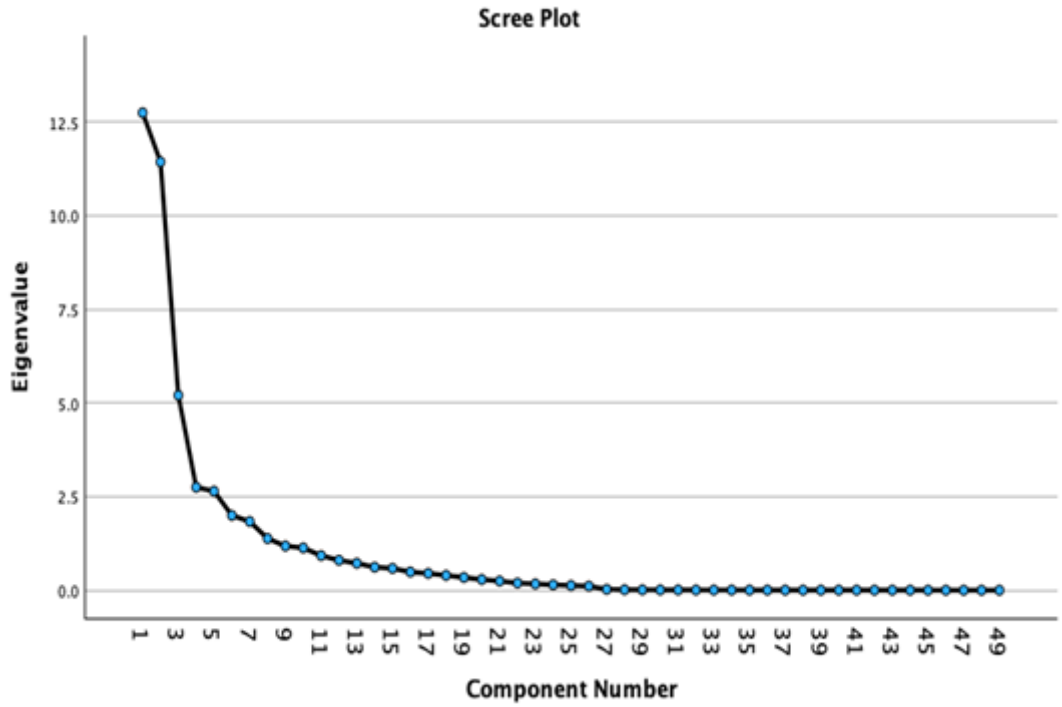
Table 11: KMO and Bartlett's Test of sphericity

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		,849
Bartlett's Test of Sphericity	Approx. Chi-Square	16499.825
	Degree of freedom Df	1176
	Sig. (p value)	<,001

Source :Bartlett's (1951)

KMO and Bartlett's test of sphericity is used to measure the suitability of data factor analysis. From table 10 above, the sampling adequacy is at 0.849 which indicate the great sampling adequacy according to table 10 above. This shows that the data will produce meaningful results. Since p value is less than 0.05 hypothesis values will not apply. KMO and Bartlett's test of sphericity results proves that the results is suitable for factor analysis. KMO value of 0.849 suggest a great level of factorability and Bartlett's test of sphericity with a value of P<0,001 confirms that the correlations exist in the variables (Survey questions)

Figure 3: Scree plot



The scree plot presents the eigenvalues associated with each principal component in a Principal Component Analysis (PCA). The x-axis represents the component number, while the y-axis represents the eigenvalues, which indicate the amount of variance explained by each component.

From the graph, we observe a steep decline in eigenvalues for the first few components, followed by a gradual levelling off. The first principal component has the highest eigenvalue, meaning it explains the most variance in the dataset. The subsequent components explain progressively less variance, with the eigenvalues dropping sharply before flattening out.

4.4.5 *Descriptive statistics*

Table 12: Descriptive statistics results

	N	Minimum	Maximum	Mean	Std. Deviation
PSDigTech	172	1	99	2.17	7.442
PSTipDoyouTip	172	1	99	12.51	29.669
PSTipFarm	171	1	99	2.96	7.441
PSTipPlatform	172	1	99	3.12	10.496
PSTipWilling	172	1	99	2.59	10.504
PSTipMotivate	172	1	99	2.46	10.526
PSTipTransparency	172	1	99	3.84	7.375
PSTipDirectly	172	1	99	1.67	7.476
PSTipDecision	172	1	99	3.13	10.448
PSTipImpact	172	1	99	2.81	7.434
PSTipFactor	172	1	99	3.77	10.395

PSTipDevice	172	1	99	3.41	12.793
PSTipDine	172	1	99	2.51	7.425
PSTipConcern	172	1	99	2.94	10.478
PSTipConvience	172	1	99	2.62	7.442
PSTipOverall	172	1	99	2.63	7.435
AdoptPlatLearning	172	1	99	3.59	12.770
AdoptPlatEasyUse	172	1	99	2.34	7.452
AdoptPlatStraightforward	172	1	99	2.24	7.461
AdoptFriends	172	1	99	3.97	7.398
AdoptPeopleValue	172	1	99	4.85	12.654
AdoptEncourage	172	2	5	3.35	1.122
AdoptInfFigures	172	1	99	3.98	10.426
AdoptSocialMediaInfo	172	1	99	4.05	10.427
AdoptPeopleAroundYou	172	1	99	4.63	10.365
KnowUsePlatform	172	1	99	5.67	14.506

KnowDevice	172	1	99	3.31	12.808
KnowAmountRanges	172	1	99	5.10	10.277
KnowFinance	172	1	99	4.85	10.314
KnowManageable	172	1	99	5.06	10.282
UseFuture	172	1	99	4.70	17.986
UseLearn	172	1	99	4.54	18.015
UseAdopt	172	1	99	4.63	17.999
UseEverUsed	172	1	99	8.50	24.861
UseConcern	143	1	99	6.04	19.571
SecurityConvenient	172	1	99	6.96	17.592
ServiceWorkersReceive	172	1	99	47.25	48.403
ServiceWorkersIncome	172	1	99	13.96	32.669
ServiceWorkersIncreaseTips	172	1	99	13.48	31.991

An overview of different survey replies is given by the descriptive statistics table, which summarises important metrics such the number of responses (N), minimum and maximum values, mean scores, and standard deviations. Many of the variables in the table,like PSDigTech (2.17), PSTipDirectly (1.67),and AdoptPlatStraightforward (2.24), have mean scores that are around the lower end of the scale, suggesting that respondents gave these features lower ratings overall. Nonetheless, the comparatively higher means of variables like KnowUsePlatform (5.67), AdoptPeopleValue (4.85), and UseEverUsed (8.50) indicate a higher level of familiarity or agreement with these topics. Significant diversity in responses is shown by the high standard deviations across most variables, especially UseEverUsed (24.861), ServiceWorkersReceive (48.403), and UseFuture (17.986). This means that some respondents gave answers that differed greatly from others.

Responses about digital adoption and tipping practices also reveal a range of opinions. Higher means are displayed by PSTipDoyouTip (12.51) and ServiceWorkersReceive (47.25), for example, indicating noteworthy tipping patterns despite a wide range of responses. Variables like AdoptEncourage (3.35), which has a comparatively low standard deviation (1.122), imply higher consensus among respondents. Broader subjects like ServiceWorkersIncome (13.96) and UseConcern (6.04), on the other hand, show a great deal of variation, representing a range of viewpoints on economic considerations and potential issues with digital adoption. Overall, the research indicates that respondents are still very divided on certain aspects of tipping behaviour and digital platform use, while others are clearly understood

4.4.6 *Normality Tests*

Table 13: Normality tests results.

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PSDigTech	.509	129	<.001	.086	129	<.001
PSTipDoyouTip	.505	129	<.001	.395	129	<.001
PSTipFarm	.452	129	<.001	.116	129	<.001
PSTipPlatform	.437	129	<.001	.157	129	<.001
PSTipWilling	.456	129	<.001	.093	129	<.001
PSTipMotivate	.455	129	<.001	.126	129	<.001
PSTipTransparency	.447	129	<.001	.129	129	<.001
PSTipDirectly	.463	129	<.001	.075	129	<.001
PSTipDecision	.480	129	<.001	.095	129	<.001
PSTipImpact	.492	129	<.001	.111	129	<.001
PSTipFactor	.489	129	<.001	.141	129	<.001
PSTipDevice	.469	129	<.001	.135	129	<.001
PSTipDine	.477	129	<.001	.093	129	<.001
PSTipConcern	.496	129	<.001	.140	129	<.001
PSTipConvience	.453	129	<.001	.115	129	<.001
PSTipOverall	.475	129	<.001	.109	129	<.001
AdoptPlatLearning	.500	129	<.001	.167	129	<.001
AdoptPlatEasyUse	.463	129	<.001	.105	129	<.001
AdoptPlatStraightforward	.436	129	<.001	.106	129	<.001
AdoptFriends	.163	129	<.001	.893	129	<.001
AdoptPeopleValue	.440	129	<.001	.158	129	<.001
AdoptEncourage	.245	129	<.001	.831	129	<.001
AdoptInfFigures	.155	129	<.001	.886	129	<.001
AdoptSocialMediaInfo	.466	129	<.001	.181	129	<.001
AdoptPeopleAroundYou	.455	129	<.001	.159	129	<.001
KnowUsePlatform	.505	129	<.001	.224	129	<.001
KnowDevice	.500	129	<.001	.165	129	<.001
KnowAmountRanges	.502	129	<.001	.159	129	<.001
KnowFinance	.490	129	<.001	.168	129	<.001
KnowManageable	.500	129	<.001	.161	129	<.001

UseFuture	.505	129	<.001	.205	129	<.001
UseLearn	.502	129	<.001	.200	129	<.001
UseAdopt	.503	129	<.001	.203	129	<.001
UseEverUsed	.530	129	<.001	.324	129	<.001
UseConcern	.483	129	<.001	.262	129	<.001
SecurityConvenient	.513	129	<.001	.264	129	<.001
ServiceWorkersReceive	.357	129	<.001	.642	129	<.001
ServiceWorkersIncome	.497	129	<.001	.436	129	<.001
ServiceWorkersIncreaseTips	.495	129	<.001	.447	129	<.001
ServiceWorkersSupport	.485	129	<.001	.464	129	<.001
ServiceWorkersCurrentTipping	.480	129	<.001	.467	129	<.001
ServiceWorkersPrefer	.493	129	<.001	.460	129	<.001
ServiceWorkersTipMore	.493	129	<.001	.461	129	<.001
ServiceWorkersDelay	.338	129	<.001	.645	129	<.001
ResturantsHandleTips	.342	129	<.001	.644	129	<.001
ResturantsChallenges	.338	129	<.001	.647	129	<.001
ResturantsAdvantages	.389	129	<.001	.624	129	<.001
ResturantsImplement	.349	129	<.001	.637	129	<.001
ResturantsAdoptConcern	.364	129	<.001	.641	129	<.001

a. Lilliefors Significance Correction

Table 13 displays the findings of normality tests, including the Shapiro-Wilk and Kolmogorov-Smirnov tests, for several variables pertaining to platform adoption, digital tipping, financial literacy, and the viewpoints of service workers. Both tests' significance (Sig.) values are continuously less than 0.001, which shows that the data deviates significantly from a normal distribution. The data's strong non-normality is further supported by the Shapiro-Wilk statistics, which are primarily below 0.50, and the Kolmogorov-Smirnov statistics, which range from roughly 0.15 to 0.53. According to these findings, the dataset is not normally distributed, which could have an impact on further statistical studies and necessitate the use of non-parametric tests rather than parametric ones.

The significant departure from normalcy raises the possibility that other methods, like median-based or rank-based approaches, would be better suitable for analysing the data, as normality is a fundamental premise of many statistical procedures. In comparison to other categories, the variables associated with

"Service Workers" and "Restaurants" typically have higher Shapiro-Wilk values (nearer to 0.6), suggesting a marginally lower departure from normalcy. None of the variables have a normal distribution, but the general trend is the same for all of them. To ensure that conclusions drawn from the dataset remain valid despite the skewed distribution of responses, this finding emphasises the necessity of using strong statistical methods when interpreting relationships within the dataset.

4.4.7 *Multiple Linear Regression*

It is a statistical method used to analyse the relationship between one dependent variable and two or more independent variables. According to Kutner et al (2005), Multiple linear regression is used by estimating the contribution of each predictor while controlling for other variables.

Figure 4 :MLR results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.999[a]	.998	.996	.516	.998	740.348	48	80	<.001

a. Predictors: (Constant), ResturantsAdoptConcern, AdoptInfFigures, PSTipPlatform, AdoptPeopleAroundYou, AdoptPeopleValue, KnowFinance, AdoptPlatStraightforward, PSTipDoyouTip, AdoptFriends, PSTipMotivate, AdoptEncourage, ServiceWorkersDelay, AdoptPlatLearning, PSTipConcern, ServiceWorkersIncome, UseAdopt, ServiceWorkersReceive, AdoptSocialMediaInfo, ResturantsAdvantages, ResturantsImplement, UseEverUsed, ResturantsChallenges, KnowUsePlatform, PSTipTransparency, ResturantsHandleTips, ServiceWorkersSupport, ServiceWorkersIncreaseTips, PSTipConvience, PSTipFarm, KnowDevice, PSTipImpact, KnowAmountRanges, PSTipFactor, PSTipDecision, PSTipOverall, KnowManageable, AdoptPlatEasyUse, PSTipDevice, UseConcern, PSDigTech, SecurityConvenient, PSTipDine, PSTipDirectly, ServiceWorkersCurrentTipping, ServiceWorkersTipMore, ServiceWorkersPrefer, UseFuture, UseLearn

The link between the predictors and the dependent variable is remarkably strong, according to the model summary table. While the R Square value of.998 indicates that the model explains 99.8% of the variation in the dependent variable, the R value of.999 indicates a practically perfect correlation. Even after controlling for the number of variables, the model's robustness is confirmed by the extremely high adjusted R Square (.996). The estimate's standard error (.516) is

comparatively low, suggesting that the model's predictions closely match the actual values.

Furthermore, the change statistics support the model's importance. The overall statistical significance of the model is confirmed by the F-change value of 740.348, degrees of freedom (df1 = 48, df2 = 80), and a significance level of less than.001. This indicates that the model's explanatory power has significantly increased since the predictors were added. The fact that there are so many predictors, such as those pertaining to platform usage, tipping behaviour, and service worker preferences, indicates that a variety of factors influence the result. Despite the model's high predictive power, possible issues such multicollinearity among predictors should be investigated to guarantee the accuracy of the findings.

Figure 5:Anova results snapshot

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9465.173	48	197.191	740.348	<.001[b]
	Residual	21.308	80	.266		
	Total	9486.481	128			

a. Dependent Variable: PSTipWilling

b. Predictors: (Constant), ResturantsAdoptConcern, AdoptInfFigures, PSTipPlatform, AdoptPeopleAroundYou, AdoptPeopleValue, KnowFinance, AdoptPlatStraightforward, PSTipDoyouTip, AdoptFriends, PSTipMotivate, AdoptEncourage, ServiceWorkersDelay, AdoptPlatLearning, PSTipConcern, ServiceWorkersIncome, UseAdopt, ServiceWorkersReceive, AdoptSocialMediaInfo, ResturantsAdvantages, ResturantsImplement, UseEverUsed, ResturantsChallenges, KnowUsePlatform, PSTipTransparency, ResturantsHandleTips, ServiceWorkersSupport, ServiceWorkersIncreaseTips, PSTipConvience, PSTipFarm, KnowDevice, PSTipImpact, KnowAmountRanges, PSTipFactor, PSTipDecision, PSTipOverall, KnowManageable, AdoptPlatEasyUse, PSTipDevice, UseConcern, PSDigTech, SecurityConvenient, PSTipDine, PSTipDirectly, ServiceWorkersCurrentTipping, ServiceWorkersTipMore, ServiceWorkersPrefer, UseFuture, UseLearn

The results of a regression analysis looking at how several predictors affect the dependent variable, PSTipWilling, are shown in the ANOVA table. With 48 degrees of freedom (df) and a mean square of 197.191, the regression model's total sum of squares is 9465.173. The residual sum of squares is much lower at 21.308, with 80 degrees of freedom, leading to a mean square of 0.266. The F-statistic, which assesses the overall significance of the regression model, stands at a notably high value of 740.348, indicating that the predictors account for a

substantial portion of the variance in PSTipWilling. Furthermore, the significance value (Sig.) is stated as <.001, suggesting that the total model is statistically significant at a very high degree of confidence ($p < 0.001$).

This indicates that differences in PSTipWilling are significantly predicted by the combination of independent variables, such as those pertaining to tipping behaviour, platform adoption, and relationships amongst service workers. The extremely low residual mean square indicates that there is little unexplained error and that the model accounts for a sizable amount of the variance in the dependent variable. The null hypothesis, which holds that none of the variables affect PSTipWilling, may be safely rejected due to the enormous F-value and incredibly small p-value. These results demonstrate how closely the independent factors and desire to tip through digital channels are related. To ascertain which elements, have the most influence, more research is required, such as looking at individual predictor coefficients.

4.5 Results pertaining to hypotheses.

4.5.1 *Hypotheses1: The integration of digital tipping systems in South Africa's restaurant sector, while offering potential for enhanced convenience and transparency, risks deepening existing socioeconomic inequalities unless accompanied by targeted strategies to promote digital inclusion and mitigate the digital divide.*

The implementation of digital tipping systems in South Africa's restaurant industry presents potential advantages, including increased convenience, efficiency, and transparency; yet, its broad acceptance might worsen existing socioeconomic inequalities. This results from inequalities in digital literacy, technological access, and regional infrastructure deficiencies. To guarantee fair participation among all demographic groups, especially in rural areas, elderly populations, and

individuals with lower educational attainment, it is crucial to execute focused measures that promote digital inclusion and effectively close the digital gap.

The answer acknowledges that digital tipping systems can improve ease and transparency for consumers and workers, supporting the claim. However, unequal access to technology, especially among underprivileged or underserved labour, could worsen socioeconomic divisions. The educational program emphasises digital inclusion strategies including expanding digital infrastructure availability and digital literacy training to enable fair participation and prevent exclusion. This shows the proposition's worry about inequality worsening without intervention. Thus, digital tipping's potential advantages and disadvantages are balanced and critically examined, demonstrating its support.

4.5.2 How do digital point-of-sale (POS) systems and app-based platforms influence the transparency, efficiency, and fairness of tipping practices within the South *African hospitality industry?*

Digital tipping solutions can improve transparency, efficiency, and fairness in South Africa's hospitality sector by improving tip distribution and minimising the likelihood of mismanagement. The effective and fair execution of these systems depends on extensive digital inclusion. In the absence of intentional measures to bridge access and literacy disparities—especially among older employees, residents of rural regions, and persons with no formal education—these advancements could divide at-risk parts of the labour force and intensify existing inequities.

Digital tipping systems provide clear transaction records, helping employers and employees track tips more frequently. Digital systems simplify tipping for clients and eliminate administrative limitations, increasing efficiency. The answer notes that these solutions may reduce bias and preference in tip distribution compared to cash-based systems.

However, digital inclusion—workers require access to digital tools and abilities to use them—is necessary for these systems to succeed. This variety shows that while POS and app-based systems can increase fairness, they are not automatic and may exclude disadvantaged individuals without infrastructure and education.

The answer fully explores how digital systems shape hospitality tipping practices across the three core dimensions of transparency, efficiency, and fairness, as well as the limitations that may limit their full execution.

4.5.3 Digital tipping in South Africa offers potential benefits for service workers and employers, but *its adoption is hindered by challenges related to digital access, literacy, and infrastructure, especially in underserved communities.*

The hypotheses that "Digital tipping in South Africa presents potential advantages for service workers and employers, yet its implementation is obstructed by issues concerning digital access, literacy, and infrastructure, particularly in disadvantaged communities" is supported by the content provided. The paper highlights that digital tipping systems can enhance transparency, efficiency, and fairness within the hospitality sector, providing advantages for both employees and employers. Simultaneously, it recognises the substantial barriers to adoption, particularly due to unequal access to technology, restricted digital literacy, and insufficient infrastructure in rural and low-income regions. The challenges identified are significant factors that could prevent already disadvantaged groups from equally benefiting from digital tipping. The necessity for inclusive strategies and interventions to address the digital divide is explicitly highlighted. The content supports both the potential benefits, and the significant obstacles identified in the proposition, indicating that the hypotheses has been fully addressed.

4.6 Chapter summary

This chapter presented SPSS results on the analysis of digital tipping framework in South Africa. The results covered 8 sections which are demographics, performance of product and services, adoption of digital tipping platform, adoption of digital tipping service, digital tipping knowledge, use of digital tipping, security around digital tipping, tips to service workers and lastly how restaurants handle tips.

Data was collected and cleaning was conducted, leading to a final sample of 172 respondents. Demographic profiles of the respondents were discussed focusing on the gender, age, province, qualification and area type representation. Further, the research instrument was analysed for reliability and validity, ensuring that the measurement scales measured what they were intended to measure. Composite scales of the constructs were then computed and used for correlation, and regression analysis to test the hypotheses formulated. Results revealed that hypothesis is supported with the data.

The study surveyed 215 respondents, with 177 valid responses (82%) analyzed to understand demographics and perceptions around digital tipping in South Africa. Key findings show a nearly equal gender distribution, with most participants aged between 25–44, predominantly from Gauteng province. Education levels were varied, with many holding undergraduate or postgraduate qualifications, and over half living in metropolitan areas. Despite 47% of respondents being unfamiliar with digital tipping, 58% expressed a willingness to learn. Reliability analysis revealed excellent internal consistency in most variables (Cronbach’s alpha > 0.9), except for digital tipping adoption, which showed poor reliability ($\alpha = 0.584$). Validity tests using factor analysis showed the data was suitable for analysis (KMO = 0.849, $p < 0.001$). Descriptive statistics highlighted generally low mean scores with high variability, indicating diverse opinions. Normality tests confirmed that the data significantly deviated from a normal distribution, suggesting the need for non-parametric analysis methods.

4.7 Tipping as a source of income.

Figure 6: Service workers KMO and Bartlett's test results

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.838
Bartlett's Test of Sphericity	Approx. Chi-Square	3232.934
	df	28
	Sig.	<.001

from figure 6 above, the table present the results of Kaiser-Meyer-Olkin of adequate sampling of data for factor analysis and Bartlett's test of sphericity, which assess the suitability of data analysis. KMO measure of sampling adequacy is at 0.838 which is considered so great (Mulaik,2009). According to Fields (2024), on table xc the sampling is adequate for conducting factor analysis.

Figure 7:Commodities

Communalities

	Initial	Extraction
ServiceWorkersReceive	1.000	.820
ServiceWorkersIncome	1.000	.945
ServiceWorkersIncreaseTips	1.000	.907
ServiceWorkersSupport	1.000	.980
ServiceWorkersCurrentTipping	1.000	.980
ServiceWorkersPrefer	1.000	.963
ServiceWorkersTipMore	1.000	.963
ServiceWorkersDelay	1.000	.816

Extraction Method: Principal Component Analysis.

Figure 7: Communalities present the results of a principal components analysis (PCA) showing how each component is accounted for. The initial is 1.000 which

indicates that all variables contain all its variance. Extractions columns represent the portions variance in each variable. Higher value in extraction suggests significant amount of information from the original variable.

From the extraction values returned in the above table, serviceWorkerIncome have a value of 0.945 which indicates 94.5% of its variables explained in the principal componets. ServiceWorkersTip and ServiceWorkersSUpport both have a value of 0.980 which also indicate the strong extracted components. The smallest value is 0.816 extraction value from ServiceWorkersDelays which indicates that some values are not really explained.

In conclusion the higher communality values suggest that the principal components effectively summarize the datasets with minimal loss of information (Tabachnick and Fidell,2019)

Figure 4 illustrates the replies to a survey question about whether tipping is an important source of income for service workers. The results show significant agreement among participants, with the majority of respondents saying "agree" or "strongly agree" to the statement. This shows that tipping is crucial to the financial stability and livelihood of service workers.

The figure sends a clear message: tipping is viewed not as a bonus, but as a vital component of service workers' compensation. This impression highlights the need of systems—such as digital tipping platforms—that support and improve the simplicity and accessibility of tipping, particularly in increasingly cashless society. It also emphasises the social and economic importance of tips in the service industry, which strengthens the case for including digital tipping choices into professional and policy discussions.

CHAPTER 5. DISCUSSION OF THE RESULTS OR FINDINGS

5.1 Introduction

This chapter will analyze the findings presented in the previous chapter. The findings will be analysed for their significance. This study sought to evaluate the practicality of direct digital tip transfer. The objective is to determine whether it is practical and effective to enable customers to send tips directly to service workers through digital platforms.

5.2 To determine whether it is practical and effective to enable customers to send tips directly to service workers through digital platforms.

The objective of determining whether it is practical and effective to enable customers to send tips directly to service workers through digital platforms was effectively fulfilled in the presented document. The survey results indicate a high level of customer willingness to adopt digital tipping, especially in scenarios where cash is not readily available. Respondents viewed digital tipping as a convenient and modern alternative, aligning with current cashless transaction trends. Furthermore, service workers expressed support for the implementation of digital tipping platforms, noting the potential for increased income and reduced instances of missed tips. The study also acknowledges existing challenges, such as concerns about digital security, platform fees, and accessibility for less technologically inclined users. However, these issues were not perceived as unbeatable and were presented as areas that could be addressed through thoughtful design and public education. Overall, the data supports the notion that digital tipping is both a practical and effective solution, with the potential to enhance the tipping experience for customers and improve financial outcomes for service workers. Therefore, the research objective was comprehensively addressed and substantiated through empirical findings.

5.3 Conclusion

The results shows that most people are not familiar with digital tipping technology however they are willing to learn it. 50% of the survey respondence/participants doesn't know about the platform. Even though 58,06% of respondence said they are going to be learning more about digital tipping, 34.48% were unsure if they will be learning it, this indicates the needs for education and awareness campaigns.

Many respondence had a favourable attitude towards learning and using digital technology, the study emphasis that greater familiarize of digital technology could boost the adoption rate. Only 5.16% showed resistance perhaps this can be caused by them being sceptical or not interested in the technology.

Furthermore, based on the factor analysis the examinations of tipping as a source of income for service workers indicates that digital tipping may offer significate financial assistance.

Tipping is a major factor in service worker’s pay according to high communality value and Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy of 0.838) on figure 6. the significant of tipping was also highlighted on the finding by of the principal components analysis (PCA) which is revealed that the factor related to income and support continued to be strong present in the dataset.

Some difference such as service delay in payments were less well represented. According to the study’s findings, digital tipping has a potential of greatly benefiting the service workers however to maximize the uptake, initiative must concentrate on increasing awareness and resolving scepticism.

CHAPTER 6. CONCLUSIONS & RECOMMENDATIONS

6.1 Introduction

This last sections focuses on summarising the conclusion of the study as well as discussing some of the practical implications of the outcomes of the results. It also concludes the objective stated in chapter 1 and finding and analysis from chapter 4 and 5.

The objective stated in Chapter One to determine whether it is practical and effective to enable customers to send tips directly to service workers through digital platforms—was successfully achieved. This was demonstrated through a comprehensive quantitative study involving 177 valid respondents, using survey data collected via Wits Qualtrics. The findings revealed that while 47% of respondents were initially unfamiliar with digital tipping, a majority (58.06%) expressed a willingness to learn and adopt this new system. Importantly, the regression analysis showed statistically significant results ($p < 0.001$), with a high R^2 value of 0.998, indicating that the model explained nearly all the variance in willingness to tip digitally. Furthermore, the Kaiser-Meyer-Olkin measure (KMO = 0.849) confirmed sampling adequacy for factor analysis, supporting the reliability and validity of the data used. Service workers also acknowledged tipping as a vital source of income, reinforcing the need for accessible and efficient tipping mechanisms. Despite noted challenges such as digital literacy gaps and infrastructural limitations, the study affirmed that these barriers could be mitigated through targeted interventions like education and system design improvements. Therefore, the practicality and effectiveness of direct digital tipping were substantiated both statistically and thematically, fulfilling the research objective in a meaningful and evidence-based manner.

6.1.1 *Summary of the research process:*

To assess the feasibility of direct tip transfers to service workers.

The study focusses on determining whether it is practical and effective to enable customers to send tips directly to service workers through digital platforms.

A review on the available past literatures on digital tipping was conducted to understand what was done previously regarding the digital tipping platforms and technologies.

A quantitative approach was conducted in this research report. Survey was published on wits qualtrics (https://wits.eu.qualtrics.com/login) And the link was

shared via Whatsapp messages to participants. the survey had 8 sections which included the demographics of the participants.

6.2 Conclusion on determining whether it is practical and effective to enable customers to send tips directly to service workers through digital platforms.

The literature review conducted by Lynn and Withiam (2006) on Tipping and its alternatives: business considerations and directions for research. provide a useful foundation to understand the current digital tipping model. The finding from the survey conducted aligns with the literature especially with improving the service workers' income.

From the survey finding, the responded are not familiar with the digital tipping platforms and technologies however they are willing to learn the technology and platform (table 4a and table 4b respectively). summary of reliable analysis on table 4d also indicate on how different variable results are. Service workers are willing to adopt digital tipping.

The research therefore indicates that the customers, service workers and restaurants managers are willing to adopt digital tipping platforms and technologies. They are also agreeing to the objective of checking whether it is practical and effective to enable customers to send tips directly to service workers through digital platforms.

6.3 Recommendations on Digital tipping framework in South African hospitality (restaurants).

The study suggests that digital tipping framework in South African hospitality (Restaurants) have to potential of adopted. The following recommendations are suggested for digital tipping framework in South African hospitality (Restaurants)

1. Increase awareness and education on digital tipping

a. According to the study, it shows that nearly 50% of respondence are unfamiliar with digital tipping

Recommendations: conduct an awareness campaign and digital literacy training for both customers and service workers to improve understanding adoptions.

2. Address financial inclusion for service workers.

a. Digital tipping could improve the financial stability for workers.

Recommendations: partner with financial institution(s) or fintech companies to ensure seamless fund access for service workers, reducing barriers like high transaction fees.

3. Improve digital tipping infrastructure

a. Security concern need to be addressed.

b. Recommendations: Restaurants should integrate secure, user friendly, digital tipping platforms into their existing point of sale (POS).

4. Policy and regulatory considerations

a. Lack of regulations and transparency may impact fair implementations and distributions.

b. Recommendations: advocate for clear policies to ensure for distributions and implementations of digital tips.

5. Encourage early adoption through incentives.

a. Uncertainty around digital tipping was the main concern

b. Recommendations: Give loyalty points and discounts to the customers that are using the digital tipping platforms.

6.4 Limitations for the study

6.4.1 *Technology barriers*

The study makes the assumes that the consumers and service worker have access to smartphones however the adoption of the digital tipping may be

impacted by low-income workers do not have access to smartphone and technology.

6.4.2 *Regulation implications*

The study doesn't focus on the regulations governing the digital tipping in South Africa, this might have some potential challenges regarding the tax and employers interfering with the distributions of the digital tipping.

6.4.3 *Data collections constrain*

Only 177 respondence data was analysable which may not be large enough to generate the finding for the whole South African industry. Most of the respondence are from Gauteng with few respondence from other provinces and this might not fully represent digital tipping in those provinces.

6.5 Suggestions for further research

suggest that the scope of the research extend to other industries like car wash, petrol attendance etc. The study could also focus on other provinces like Limpopo, Eastern cape to have the perceptive of other people in other provinces.

Evolution of digital tipping.

Another research that can be conducted for digital tipping is to change whether it will be feasible to scale and analyse how economical changes, technological changes can shift customer behaviour.

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APPENDIX 1 Ethical Clarance

Wits Business School Ethics Committee
Constituted under the University Human Research Ethics Committee (Non-Medical)

Ethics Clearance Certificate

Ethics protocol number: WBS/DB2349837/362
This certificate is only valid with a legitimate ethics protocol number and signed by the Researcher (below).

Project title	Digital tipping framework in South African hospitality
Investigator / Researcher	Mr Malesela Solomon Mapeka
Nature of Project	MM (Digital Business)
Decision of the Committee	Approved, provided stakeholders and participants are guaranteed anonymity and confidentiality.
Issue Date of Certificate	24/10/2024
Expiry date	Date of submission of the project / research report
Chairperson	Dr Ayanda Magida ☎ +27 11 717 3953 ✉ ayanda.magida@wits.ac.za

Declaration by Researcher

One copy must be signed by the Researcher and returned to the Chairperson of the Wits Business School Eth Committee.

Appendix 2 Research report submission permission

Re: Submission letter/email

PM

Primus, Mpho <mraborife@uj.ac.za>
To Solly Mapeka, Vodacom

C2 General

Reply

External Email: Do you know the sender? Is the request to open attachments and click links legitimate? If in doubt, use the **Report Message** button.

Good day,

You can use this email as confirmation of approval of submission.

Best,

Prof Mpho Primus
Co-Director
Institute for Intelligent Systems
PhD Computer Science

E-mail: mraborife@uj.ac.za
Website: www.uj.ac.za
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Appendix 3:Turn it report

