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The adoption of digital platforms for student services at the University of the Witwatersrand

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Supervisor: Dr Ayanda Magida

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

Wits Business School

Johannesburg, 2024

ABSTRACT

Technology's rapid growth has transformed how universities interact with their students, prompting the implementation of cutting-edge strategies like digital platforms. This research focused on examining the use and acceptability of various digital platforms in the context of the University of the Witwatersrand, particularly for student services.

The study incorporated key concepts of the Unified Theory of Acceptance and Use of Technology (UTAUT2) to determine the factors driving the adoption of digital platforms. A quantitative technique, the research asked undergraduate and graduate students enrolled at the University of the Witwatersrand to complete an online questionnaire using the Qualtrics software. Using this thorough approach, the data was directly analysed, looking at how the theoretical framework and actual examples interact.

The analysis's findings identified the UTAUT2 constructs that have the biggest impact on individual readiness to accept and use digital platforms for student services. The findings also demonstrated the possibility of this study helping the University of the Witwatersrand obtain an in-depth understanding of the primary factors that influenced students' use of digital platforms. In the end, having this understanding will help to successfully incorporate the idea of digital platforms into the context of university student services.

The University of the Witwatersrand will be able to make wise decisions on implementing and optimising digital platforms for improved student engagement and support as a result of this research, which is expected to provide useful insights. The results are anticipated to improve digitalization efforts inside higher education institutions and enable the delivery of more effective and efficient student services in the rapidly changing technology environment.

Keywords

Digital platforms; enhancing student experiences; higher education institutions; platforms adoptions; streamlining administrative processes; students universities.

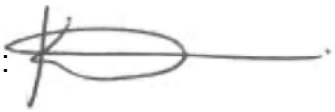
DECLARATION

I, Katlego Khoetha, solemnly declare that the research report titled **The Adoption of Digital Platforms for Student Services at the University of the Witwatersrand** is entirely my own work. This report is submitted in fulfilment of the requirements for the degree of Masters of Management in the Field of Digital Business at the esteemed University of the Witwatersrand.

I further affirm that this research report has not been previously submitted for any other degree, examination, or evaluation at any other university or academic institution. The content presented within this report represents my original contributions, ideas, and findings, and any external sources utilized have been duly acknowledged and cited.

I take full responsibility for the integrity of this research and affirm that all data, analyses, interpretations, and conclusions presented are accurate and reliable to the best of my knowledge. The ethical guidelines and standards of academic integrity have been strictly adhered to throughout the research process, ensuring the validity and authenticity of this work.

I acknowledge that any violation of the aforementioned declaration may result in severe consequences, including the revocation of the degree conferred upon me by the University of the Witwatersrand. I understand the gravity of this declaration and affirm my commitment to upholding the principles of academic honesty and intellectual integrity in all my academic pursuits.

Name: **Katlego Khoetha** Signature: 

Signed at Alberton on the 30th day of June 2023

DEDICATION

I dedicate this research report titled **The Adoption of Digital Platforms for Student Services at the University of the Witwatersrand** to three remarkable individuals who have been unwavering sources of love, support, and inspiration throughout my academic journey. Their encouragement, sacrifices, and belief in my abilities have propelled me to reach new heights and have played a significant role in the completion of this research.

To my beloved wife, Jeanette Khoetha, your unwavering support and understanding have been the cornerstone of my success. Your patience, encouragement, and belief in my abilities have been a constant source of motivation. Your sacrifice, as you stood by me during the long nights and weekends spent researching and writing, has been a testament to your unwavering dedication. Your love has given me the strength to overcome obstacles and strive for excellence. This research report is a tribute to our partnership and the endless possibilities that lie ahead.

To my dear mother, Wendy Khoetha, your boundless love and encouragement have shaped me into the person I am today. Your unwavering belief in my potential has been the driving force behind my pursuit of knowledge. From my earliest days, you instilled in me a passion for learning and a curiosity to explore the unknown. Your sacrifices and relentless support have laid the foundation for my academic achievements. This research report is a testament to your unwavering belief in my capabilities and a reflection of the values you instilled in me.

To my brother, Eustice Khoetha, your constant presence and belief in my abilities have been a guiding light throughout my academic journey. Your enthusiasm, intellect, and the countless hours we spent discussing ideas have broadened my perspectives and deepened my understanding. Your unwavering support, constructive feedback, and stimulating conversations have challenged me to push beyond my limits. This research report is dedicated to our shared aspirations and the bond we share as siblings.

I am forever grateful for the love, encouragement, and inspiration provided by Jeanette, Wendy, and Eustice. Without their unwavering support, this research report

would not have been possible. Their presence in my life has made all the difference, and I dedicate this report to them as a token of my deepest gratitude.

May their unwavering support and love continue to inspire me in my future academic endeavours and in all aspects of life.

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Additionally, I would like to acknowledge and express my gratitude to the University of the Witwatersrand for granting me the opportunity to conduct this study. I am thankful for the resources, facilities, and support provided by the university, which have been essential in carrying out this research. The academic environment and the collaborative community at the university have fostered an atmosphere of growth and learning, allowing me to pursue this study with enthusiasm and dedication.

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To all those mentioned above, as well as any other individuals who have supported me along this journey, I extend my heartfelt thanks. Your contributions and support have been crucial to the successful completion of this research report. I am grateful for your belief in me, your guidance, and your unwavering support.

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List of Acronyms

AR	Augmented reality
BI	Behavioural Intention
DoI	Diffusion of Innovation
EE	Effort Expectancy
EHE	Ethiopian Higher Education
FC	Facilitating Conditions
HB	Habit
HM	Hedonic Motivation
ICT	Information and Communications Technology
LMS	Learning Management System
MCB	Mobile Computing Bank
MTN	Mobile Telecommunication Company
PE	Performance Expectancy
PhD	Doctor of Philosophy
PV	Price Value
RFID	Radio-frequency identification
SI	Social Influence
TOE	Technology–Organization–Environment
UTAUT	Unified Theory of Acceptance and Use of Technology
Wits	University of the Witwatersrand

CHAPTER 1. INTRODUCTION

1.1 Statement of Purpose

The primary objective of this study was to investigate the key factors that influenced the adoption of digital platforms for student services at the University of the Witwatersrand. To achieve this objective, a quantitative research approach was employed, utilising the Unified Theory of Acceptance and Use of Technology (UTAUT2) as a conceptual framework to guide the survey design and analysis. By integrating the UTAUT2 constructs, the study aimed to gain a comprehensive understanding of the determinants that shape the acceptance and utilisation of digital platforms among students at the university. The research explored the interplay between theory and real-life examples, employing a deductive analysis of the collected data to examine the relationship between the UTAUT2 constructs and the acceptance and usage of digital platforms for student services. The findings of this study provided valuable insights that would assist the University of the Witwatersrand in understanding the main drivers of digital platform adoption from student perspectives, facilitating the integration of digital platforms into student services effectively.

1.2 Background of the Study

The advent of technology has brought about a paradigm shift in the way we approach learning and education. It has become increasingly evident that traditional methods of instruction are no longer sufficient in meeting the needs and expectations of modern-day students. As a result, educational institutions have been compelled to embrace digital platforms and leverage technology to enhance the learning experience.

Research studies have highlighted the significant role that digital platforms play in supporting learning endeavours. For instance, Madge et al. (2009) conducted a study in the United Kingdom and found that a staggering 95% of students regularly utilize social networking sites such as Facebook Live and YouTube as tools for educational purposes. This finding was corroborated by Selwyn and Gorard (2016) in Australia, who also observed that students rely on platforms like Facebook Live and YouTube to augment their learning experiences.

Furthermore, major technology companies such as Google and Amazon have recognized the potential of digital platforms in education and have developed their own dedicated platforms to cater to the needs of students and educators. Google Classroom and Amazon Education platforms have provided users with a host of innovative tools and resources to facilitate the learning process (Kornberger et al., 2017). In addition to these proprietary platforms, learning management systems (LMS) such as Moodle, Canvas, and Blackboard have emerged as essential tools in the production and dissemination of educational content (Kornberger et al., 2017).

It is evident that students are increasingly relying on technology to support their educational endeavours. Margaryan et al. (2011) conducted a study which revealed the widespread use of technology among students. Similarly, Jelfs and Richardson (2013) found that distance learning students, in particular, have embraced technology as a means of connecting with higher education institutions. These findings demonstrate the growing influence of technology in the educational landscape and emphasize the need for universities to adapt and integrate digital platforms into their interactions with students.

The rapid pace of technological advancements necessitates higher education institutions to stay abreast of market trends and equip themselves with innovative systems and processes. Paap and Katz (2004) argue that universities, like the University of the Witwatersrand (Wits), must embrace the changing technological landscape to students to cater to the needs of their students effectively. Failure to do so may result in a disconnect between the institution and its digitally proficient student body.

In this pursuit, universities can draw inspiration from successful organisations in other sectors that have effectively harnessed digital platforms. Companies such as Netflix and Spotify have leveraged the power of digital platforms to transform their respective industries (Thurman & Schifferes, 2012). By adopting similar strategies, universities can enhance their infrastructure and teaching processes, enabling them to better engage with students and deliver an enriched learning experience (Rodney, 2020).

optimise emerged. Nathoo (2020) defines smart classrooms as spaces equipped with digital platform tools such as cameras, RFID, and sensors, facilitating effective classroom management and student assessment. These technologically advanced learning spaces enable educators to monitor and evaluate student progress in real time, leading to more personalised and adaptive instruction.

The COVID-19 pandemic that swept across the globe in 2019 brought about unprecedented disruptions in the field of education. In response to the outbreak, universities in South Africa, including Wits, had to swiftly transition from traditional face-to-face teaching to fully online or virtual learning formats. Video conference solutions became essential in facilitating remote instruction and mitigating the spread of the virus (Gandolfi et al., 2021).

The pandemic acted as a catalyst for the widespread adoption of digital technologies in education. Universities had to adapt their policies and implement measures such as vaccination protocols, hygiene procedures, and social distancing guidelines to ensure the safety of their students and staff (Farooq et al., 2021). These adjustments underscored digital platforms' importance and ability to facilitate seamless transitions to remote learning.

Like many other universities, Wits successfully embraced digital platforms such as learning management systems (LMS) during the pandemic. The institution recognised the changing role of information and communication technology (ICT) and the transformative impact it could have on the learning experience (Wits University - The changing role of ICT, 2021). In some cases, universities went beyond traditional online learning methods. They employed technologies like augmented reality (AR) to create immersive and interactive learning environments that could compensate for restrictions like social distancing and country lockdowns (Marques & Pombo, 2020).

However, the effective utilisation of digital platforms in education is contingent upon students' ability to adopt and adapt to these technologies. Camilleri (2020) emphasises the importance of ensuring students possess the necessary digital literacy skills to navigate and leverage the available digital tools effectively.

This study aimed to explore the impact of digital platforms at the University of the Witwatersrand and the learning experience of students. Specifically, the study seeks to investigate how the adoption and integration of digital platforms in the university can enhance access to educational resources, facilitate collaboration among peers, and foster engagement with course content. Through this research, a comprehensive understanding of the impact of digital platforms on students and the University of the Witwatersrand was gained, providing insights and recommendations for the university to adapt and harness the potential of technology in their teaching and learning practices.

1.3 Research Problem

One of the traditional methods universities employ to share information with students is through the use of notices or information boards (Halim et al., 2011). These notice boards are strategically placed throughout the university campus, including faculty and school buildings, libraries, cafeterias, and other areas where students frequent. Students are expected to physically visit these notice boards to access important information. However, this approach has limitations, as students may miss out on vital information if they fail to check the notice boards or if the information posted is delayed or inaccurate.

The situation was further compounded by the disruptive impact of the COVID-19 pandemic, which hit the country between 2019 and 2021, leading to the suspension of face-to-face teaching in most universities (Decuypere et al., 2021). During this period, the country experienced a Level 5 lockdown, and many students missed crucial information such as funding opportunities, class schedules, bus schedules, meal schedules, and other campus-related activities. Traditional methods of communication, such as sending posters to be displayed on notice boards, were no longer feasible. In response to the pandemic, universities were compelled to swiftly transition to remote teaching and learning (The University of the Witwatersrand, 2020).

However, this sudden shift to digital platforms brought about anxiety and uncertainty among students, as they were required to adapt to new learning modes (The University of the Witwatersrand, 2020). To ensure a successful transition, the Senior Executive Team at the University of the Witwatersrand had to display agility and

allocate resources for this emergency switch (The University of the Witwatersrand, 2020). Heads of Schools, Deans, and academic and administrative staff also had to adapt quickly to support student success during this challenging time.

On April 20, 2020, the official transition to digital platforms commenced at the University of the Witwatersrand, with the understanding that this would be a temporary measure to preserve the academic calendar rather than a permanent transformation, as the university is not primarily a correspondence institution (The University of the Witwatersrand, 2020). A survey conducted at the university revealed that approximately 10% to 15% of students faced challenges related to access to devices, data, and suitable learning environments (The University of the Witwatersrand, 2020). In response, the university implemented several measures to ensure students' access to remote learning:

- Establishment of a Mobile Computing Bank (MCB): The university set up an MCB to enable students without access to devices to borrow them. These devices were pre-loaded with necessary learning resources and delivered to students through the South African Post Office. Costs associated with any damages or failure to return the devices in good condition were added to the student's account.

- Collaboration with telecommunication service providers: Agreements were made with major telecommunication providers such as Telkom, MTN, Vodacom, and Cell C to grant students free access to Wits' library and other learning websites.
- Support for postgraduate students: Postgraduate students pursuing Masters and PhD degrees maintained direct communication with their supervisors to ensure the continuity of their research.

In light of these circumstances, this research aimed to investigate the adoption of digital platforms in higher education institutions, with a specific focus on the University of the Witwatersrand. While numerous digital platforms are available in the market, this study specifically examined their adoption and application within the university's environment. By exploring the usage and acceptance of digital platforms, the research provided valuable insight into their effectiveness and impact on students' learning

experience at the University of the Witwatersrand. Through this investigation, the study aimed to contribute to the existing body of knowledge and inform strategies that can further enhance the adoption and utilisation of digital platforms in higher education settings.

1.4 Research Questions

The main question of this study was:

1.4.1 How do students perceive the usefulness of digital platforms for student services?

1.4.2 What is the relationship between students' intention to use digital platforms and their actual usage behaviour?

1.5 Rationale

This study identifies three contributions.

Firstly, the study identified factors that may lead to adopting digital platforms for student services at the University of the Witwatersrand. The Unified Theory of Acceptance and Use of Technology (UTAUT2) model was used to explore the University's adoption of digital platforms for student services. The UTAUT2 model was a widely used theoretical framework that explains user acceptance and use of technology (Venkatesh, Morris, & Davis, 2003). The study extended the UTAUT2 model by incorporating its seven determinants that affect students' behaviours to adopt and use digital platforms in a survey questionnaire. The seven determinants included performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, and habit. By identifying these determinants, the study provided insights into the factors that influence students' intention to use digital platforms for student services. The study's findings can help the university understand how students perceive the usefulness of digital platforms for student services and what factors influence their intention to use them. The university can use this information to improve its digital platforms and enhance students' experiences with these platforms.

Secondly, this study contributed to the broader understanding of digital platform adoption in higher education contexts. While research on the adoption of digital platforms has been conducted in various universities and countries, there is currently a gap in knowledge within the specific context of the University of the Witwatersrand. For instance, Bahri et al. (2021) examined the readiness and willingness of Moroccan nursing students to adopt digital platforms for safe nursing practice. They concluded that adopting these platforms is no longer an option but a necessity for students to remain relevant in the COVID era. Similarly, Hiran and Henten (2020) explored the factors and sub-factors relevant to adopting digital platforms in the Ethiopian Higher Education (EHE) sector. Their study highlighted the significance of cloud computing adoption within the EHE, employing both the "Technology-Organization-Environment (TOE) framework" and the "Diffusion of Innovation (DoI) theory." However, within the University of the Witwatersrand context, it is crucial to determine the unique aspects that drive digital platform adoption, as the influence of factors such as access to digital technology may differ from that observed in Morocco and Ethiopia. By conducting research specific to the University of the Witwatersrand, this study aimed to fill this gap and contribute to a better understanding of adopting digital platforms for student services.

Thirdly, this research provided valuable insights into the University of the Witwatersrand by uncovering the factors that may influence the adoption of digital platforms for student services. By identifying these factors, the study can assist in enhancing and improving current processes by using existing and new digital platform enablers. This, in turn, has the potential to impact the university positively by identifying opportunities for digitisation, autonomy, and the implementation of smart solutions. By shedding light on the specific factors that shape the adoption of digital platforms at the University of the Witwatersrand, this research contributed to the ongoing development and improvement of digital services and processes within the institution (M.M. de Obesso et al., 2023).

1.6 Delimitations of the Study

The delimitations of this study are:

I. Focused on registered students:
    - The study specifically targeted the University of the Witwatersrand registered students. This ensured that the research captured the perspectives and experiences of the primary stakeholders directly involved in the university's educational programs.

II. Exclusion of occasional and part-time students, alumni, staff, and visitors:
    - The study narrowed its scope to the registered students of the university, excluding occasional and part-time students, alums, staff, and visitors. This delimitation allowed for a more focused examination of adopting digital platforms for student services within the context of full-time students actively engaged in the university's academic programs.

III. Inclusion of students familiar with and having access to digital platforms:
    - The study included students already familiar with and have access to digital platforms. This selection criterion ensured that the research captures insights and perspectives from students who have prior experience and knowledge of using digital platforms for their educational activities.

IV. Exclusion of completely visually impaired students:
    - The study excluded students who were completely visually impaired. This delimitation acknowledged the unique challenges and requirements of visually impaired students in utilising digital platforms and recognised the need for specialised research and support tailored to their needs.

1.7 Definition of terms

Table 0-1 below represents the definitions that were used in this research study.

Term	Definition
Digitisation	Digitisation refers to utilising digital technologies to transform a business and create new opportunities for generating value (Slywotzky and Morrison, 2000). It involves integrating digital tools, systems, and processes into multiple aspects of an organization's organisation's operations to enhance efficiency, productivity, and innovation.
Quantitative research	Quantitative research involves a systematic investigation that relies on of collecting and analysing numerical or statistical data (Watson, 2014). It focuses on generating objective and measurable insights by employing structured research methodologies, such as surveys, experiments, and statistical analysis, to examine phenomena and establish relationships between variables.
Platform	A digital platform, as defined by Rossotto et al. (2018), is a collection of components that are shared across a product or service and can be extended to third parties. It serves as an infrastructure or framework that enables the development and delivery of various applications, services, or functionalities. Digital platforms provide a scalable and modular foundation that allows different stakeholders to interact, collaborate, and build upon the platform's capabilities to create value and foster innovation.

Table 0-1 - Terms and Definitions

1.8 Assumptions

The study was guided by several assumptions, which served as the basis for conducting the research and interpreting the findings:

- Participants responded to the questions: It is assumed that the participants who were included in the study were willingly engaged and provided responses to the survey questions. Their active participation was crucial for gathering the necessary data to address the research objectives effectively.
- All participants answered the survey accurately and honestly: The assumption is made that the participants provided truthful and reliable responses. They were expected to answer the questions to the best of their knowledge and not provide deliberately false or misleading information.
- Participants were familiar with answering survey questions: It was assumed that the participants possessed familiarity and experience in responding to survey questionnaires. They were expected to understand the purpose of the survey and the nature of the questions being asked, enabling them to provide meaningful and relevant responses.
- All participants were familiar with digital platforms: The assumption was that all participants had a certain degree of familiarity with digital platforms. Given the focus of the study on the adoption of digital platforms for student services, it was expected that the participants would have engaged with digital technologies and experience using digital platforms in their educational context.
- The questions allowed participants to respond in a way that the researcher required: The assumption is that the survey questions were designed appropriately and effectively to elicit the information needed to address the research objectives. It was expected that the questions captured the relevant aspects related to adopting digital platforms, enabling participants to respond in a manner that aligns with the researcher's intent.

1.9 Structure of the report

Chapter 1 serves as an introduction to the research study, providing a comprehensive overview of the research problem, the contextual background, and the specific objectives the study aims to address. This chapter establishes the foundation for the entire research endeavour, setting the stage for the subsequent chapters. Chapter 2 presents a critical literature review, focusing on the Adoption of Digital Platforms for Student Services, focusing on the adoption of digital platforms for student services at the University of the Witwatersrand. This literature review delves into the relevant scholarly works and academic resources, exploring key terms, concepts, and theories that are central to understanding the adoption of digital platforms in the context of student services. This review identifies the existing knowledge and gaps in the literature, creating a solid basis for the subsequent research investigation. Chapter 3 outlines the proposed research methodology employed in the study. This chapter provides a detailed description of the research design, data collection methods, and data analysis techniques that will be utilised to gather and analyse the necessary information. The rationale behind the chosen methodology is discussed, ensuring the validity and reliability of the research findings. In chapters 4 and 5, the study's empirical findings are presented and comprehensively discussed. These chapters present the collected data, which has been analysed and interpreted in light of the research objectives. The findings are examined about the existing literature and theoretical frameworks, providing insights, implications, and recommendations derived from the analysis. Finally, Chapter 6 concludes the research study, summarising the key findings, discussing their implications, and drawing conclusions. This chapter also highlights the study's limitations and suggests areas for further research, contributing to the existing body of knowledge in the field. Additionally, recommendations are provided to guide future practices and interventions related to adopting digital platforms for student services at the University of the Witwatersrand.

CHAPTER 2. LITERATURE REVIEW

This chapter provides a comprehensive review of the literature pertaining to platform technologies. Drawing upon the works of Gawer and Cusumano (2014), Perks et al. (2017), Porch et al. (2015), and Hodson et al. (2020), it delves into key concepts and theories that shed light on the characteristics, system, and structural dimensions of digital platforms. By exploring these concepts, the chapter aims to deepen the understanding of digital platforms' implications, adoption, and acceptance within various domains.

The works of Gawer and Cusumano (2014), Perks et al. (2017), Porch et al. (2015), and Hodson et al. (2020) offer valuable insights into the transformative effects of digital platforms on our lives. Through their research, these scholars have explored the multifaceted nature of platforms and how they have reshaped industries, economies, and social interactions. The theoretical framework developed based on their contributions serves as a conceptual tool to analyse and interpret the implications and dynamics of platform technologies.

By examining the features, system, and structural dimensions of digital platforms, this chapter lays the foundation for understanding their profound impact on various aspects of society. It explores the factors that contribute to the adoption and acceptance of platforms, providing a theoretical lens through which to analyse their role and influence in our increasingly interconnected world.

2.1 Defining Platforms

The concept of platforms, as initially highlighted by Gawer and Cusumano (2014), primarily emphasised the technological aspects of product components and complex systems. However, the notion of platforms has since evolved to encompass value-based solutions that involve multiple contributors (Fernandes et al., 2022; Lusch and Nambisan, 2015; Rong et al., 2021). In line with this evolution, Perks (2017) defines platforms as both tangible and intangible systems that generate value (Perks et al., 2017). Additionally, Gawer (2009) further categorizes platforms as either internal or external, depending on their scope within the platform industry (Gawer, 2014; Gawer and Cusumano, 2014; Porch et al., 2015).

The emergence of the platform era has had far-reaching implications across various domains, including the economic, cultural, demographic, and political spheres (Hodson, Kasmire, McMeekin, Stehlin, & Ward, 2020). Platforms have introduced new economic and social structures (Couldry & Hepp, 2018), influenced practices, institutions, economies, and demographic structures (Chadwick, 2017; Van Dijck, 2013; Vargo, Wieland, & Akaka, 2015), and shaped physical spaces and lifestyles (Barns, 2019; Hodson et al., 2020). Prominent examples of such platforms include Airbnb, Uber, Google Maps, Facebook, TikTok, Instagram, WhatsApp, and YouTube, among others.

The evolution of platforms from a technology-focused perspective to value-driven solutions reflects their transformative impact on various aspects of society. Recognizing their multidimensional nature and the diverse range of platforms in existence enhances our understanding of their role and significance in contemporary digital ecosystems. These platforms have not only reshaped industries and economies but also redefined social interactions and influenced the way we navigate and experience the world.

2.1.1 Features of Platforms

According to Barile et al. (2022), the features of platforms can be categorized into two main categories: structural features and system features. These categories help in understanding the different aspects and components of platforms. **Error! Reference source not found.** below illustrates the structure and system of platforms, highlighting their key elements and relationships. By examining these features, we can gain insights into the underlying architecture and dynamics of platforms. Understanding the interplay between the structural and system features is crucial for comprehending how platforms function and create value in various contexts.

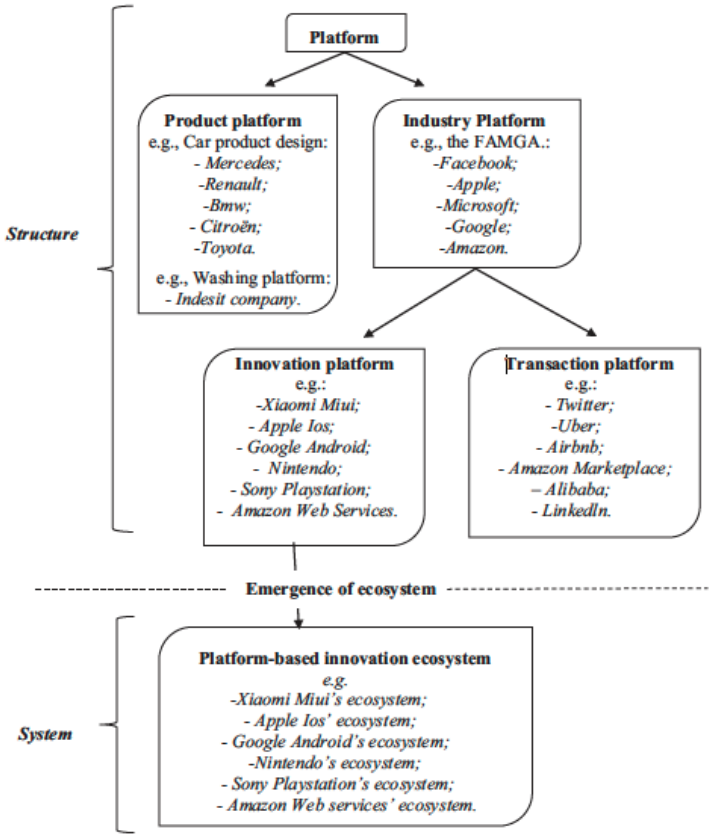


Figure 0 - 1 - Structure and System of platform: Source: Industrial Marketing Management 105 (2022) 467–4

According to Barile et al. (2022), the structure dimension of platforms enables the identification of various configurations by analysing the relationships between rules and procedures. This dimension provides insights into the organisational and operational aspects of platforms, shedding light on their underlying structure and design. On the other hand, the system dimension allows for an understanding of how these configurations and relationships within the platform are activated and influenced. It explores the dynamic processes and mechanisms that drive platform behaviour and performance.

The key insight highlighted by Barile et al. (2022) is that both the structural and system dimensions of platforms play a crucial role in fostering innovation. By having a well-defined structure and understanding the triggers and mechanisms within the system, platforms can facilitate the emergence of innovative solutions and value creation. The interplay between the structure and system dimensions provides a fertile ground for novel ideas, collaborations, and disruptions, driving continuous improvement and evolution within the platform ecosystem.

System Dimension

The dimension described by Cusumano et al. (2019), McIntyre et al. (2020), and Parker and Van Alstyne (2012) encompass four distinct categories: the sponsor, complements (supply side), users (demand side), and platform provider. These categories play crucial roles within the platform ecosystem and are depicted in Figure 0 - 2

As one of the key categories, the sponsor refers to the entity or organisation that initiates and supports the platform's development. Sponsors often provide the resources, funding, and strategic direction to drive the platform's growth and success. Complementors, on the supply side, are individuals or organisations that contribute complementary goods, services, or functionalities to the platform. They enhance the value and attractiveness of the platform by offering additional offerings that align with its core functionalities (De Reuver et al., 2017; Lusch and Nambisan, 2015).

Users, representing the demand side, are the individuals or entities actively engaging with the platform to access its products, services, or functionalities. Users contribute to the platform's success by providing feedback, generating content, and participating in transactions or interactions facilitated by the platform (Cohendet et al., 2020).

Lastly, the platform provider is responsible for designing, developing, and maintaining the platform infrastructure and the underlying technology that enables its operation. The platform provider is central in coordinating the interactions and transactions between sponsors, complementors, and users, ensuring a seamless and efficient platform experience (Adner, 2006).

These categories illustrate the diverse stakeholders involved in a platform ecosystem, each with unique roles and contributions. The interplay and collaboration among sponsors, complementors, users, and platform providers are crucial for fostering growth, value creation, and sustainability within the platform environment (Alexy et al., 2018; Cutolo and Kenney, 2021).

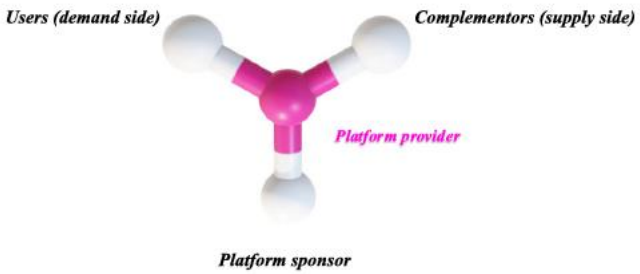


Figure 0 - 2 - Categories system dimension: Source: Industrial Marketing Management 105 (2022) 467–477

The platform sponsor is a crucial entity that assumes ownership of the platform, and this role is commonly fulfilled by prominent companies like Sony sponsoring the PlayStation platform. As the platform sponsor, Sony takes on the responsibility of overseeing the platform's overall strategy, vision, and direction. They provide the necessary resources and infrastructure to ensure the platform's success (Cusumano et al., 2019).

The platform sponsor is closely intertwined with the platform provider, which serves as the platform's operational arm. The platform provider acts as the contact point for users, where they interact with the platform's features, rules, components, and structures. This includes aspects such as user interfaces, data management, security, and system maintenance. The platform provider ensures the smooth functioning of the platform and provides the necessary tools and services for users to engage with it effectively (McIntyre et al., 2020).

Moreover, the platform provider is responsible for maintaining the platform's operations and acts as the hub of innovation within the platform ecosystem. They encourage and facilitate the development of new features, services, and functionalities. This innovation can come from internal sources and external collaborations with developers, partners, and other stakeholders. By fostering innovation, the platform provider keeps the platform dynamic, competitive, and appealing to its user base (Parker & Van Alstyne, 2012).

In some cases, the platform sponsor can also assume the role of the platform provider. Taking the example of Sony's PlayStation platform, Sony owns and sponsors the platform and directly provides video games to the PlayStation console. As the platform provider, Sony develops and publishes games exclusive to the PlayStation platform,

attracting users from various sectors such as businesses, organisations, and individual consumers (Cenamor and Frishammar, 2021).

In this context, developers play the role of complementors within the PlayStation ecosystem. They create new games and applications that enhance the platform's value proposition and attract a larger user base. These developers collaborate with Sony and leverage the platform's resources, tools, and user base to bring their creations to life. Through their continuous innovation and contribution of new content, developers help drive the growth and engagement of the PlayStation platform (Cenamor and Frishammar, 2021).

Structure Dimension

In the dimension of platform design, several categories play significant roles in shaping the platform ecosystem. The first category is digital algorithms, which are the computational processes that transform input into output. These algorithms are utilised within the innovation platform to collect and analyse data, facilitating connections between participants (Cusumano et al., 2019; Greenfield, 2017; Parker & Van Alstyne, 2014; Parker, Van Alstyne, & Jiang, 2017; Simone, La Sala, & Laudando, 2020). By leveraging digital algorithms, platforms can efficiently process and utilise data to drive value creation.

The second category is the digital interface, which acts as the bridge or conduit through which data and information flow within the platform ecosystem. These interfaces can take various forms, such as user interfaces, application programming interfaces (APIs), or integration points that enable seamless interactions between different platform components (Galloway, 2012). The quality and usability of the digital interface greatly influence the user experience and the ease with which participants can engage with the platform.

The third category is shared standards, which establish the rules and protocols that govern how various components and participants interact within the platform ecosystem. Shared standards define the technical specifications, communication protocols, and compatibility requirements that enable interoperability and collaboration among different platform elements (Parker & Van Alstyne, 2012). These standards

ensure that diverse components can work harmoniously, fostering a more robust and interconnected platform ecosystem.

The fourth category is the rules of participants, which the platform sponsor defines to create a framework of duties, regulations, and incentives among the various actors within the platform ecosystem. These rules can encompass policies related to user behaviour, data privacy, intellectual property rights, pricing, and governance mechanisms (Parker, Van Alstyne, & Choudary, 2016; Shipilov & Gawer, 2020). By setting and enforcing these rules, the platform sponsor maintains control over the platform and guides participants' behaviour.

The platform sponsor plays a crucial role in driving growth and value creation within the platform. They have three key responsibilities. Firstly, they determine the extent to which they share technology with complementors, and external actors creating products or services that enhance the platform's offering. This strategic decision influences the breadth and depth of the platform's ecosystem and can stimulate innovation and attract more users (Cusumano et al., 2019).

Secondly, the platform sponsor selects and manages the participation of complementors and users within the platform. This involves identifying and inviting relevant stakeholders to contribute to the platform's growth and success. By carefully curating the participant base, the sponsor can ensure a diverse and vibrant ecosystem that caters to the needs and preferences of the user community (Cusumano et al., 2019).

Lastly, the platform sponsor considers the technological landscape of substitute platforms. They analyse competing platforms and assess their technological capabilities, strengths, and weaknesses. This analysis allows the sponsor to identify potential threats and opportunities, enabling them to make informed decisions to maintain the platform's competitiveness and ensure its continuous evolution (Cusumano et al., 2019).

Platforms can achieve growth through three primary sources. Firstly, the platform can create new opportunities to sell more products and services by strengthening and expanding its relationship with existing users. This can be achieved through features like personalized recommendations, loyalty programs, or cross-selling initiatives (Slywotzky, Wise, & Weber, 2003).

Secondly, platforms can drive growth by offering integrated offerings and sales through collaborations or partnerships with other markets. By expanding the scope of their services or integrating with complementary platforms, they can attract new users and create additional value for existing ones (Slywotzky, Wise, & Weber, 2003).
Lastly, platforms can pursue growth by venturing into new and improved opportunities through various strategies such as outsourcing, additional revenue streams like charges or subscriptions, or providing assurance services. These expansion avenues enable platforms to broaden reach and capture new market segments (Slywotzky, Wise, & Weber, 2003).

2.2 Theoretical implications of platforms

The innovation of platforms has had a transformative impact on organisations, blurring the traditional boundaries between manufacturing and services. This shift has brought new opportunities and challenges, reshaping the business landscape (Aging In Place, 2020). Digital platforms, in particular, have significantly influenced users and businesses, revolutionising how things are done (Schneider, 2013). These platforms have introduced novel ways of delivering products, services, and experiences, leveraging technology to enhance efficiency, convenience, and access (Lai, 2016).
For platform sponsors, a key challenge lies in understanding the rate at which platform users adopt these digital platforms. Various factors, including concerns about security, individual needs, perceived convenience, and overall user experience can influence the adoption process. It is crucial to consider the features and attributes influencing users' willingness to adopt and utilise these digital platforms effectively (Aging In Place, 2020).

To gain insights into the factors driving adoption, several frameworks have been developed and applied in different fields such as education, finance, and healthcare. These frameworks offer valuable guidance in identifying the determinants of adoption. Some notable frameworks include the Theory of Reasoned Action, the Unified Theory of Acceptance and Use of Technology, and the Diffusion of Innovation model (Venkatesh, Morris, & Davis, 2003).

The Theory of Reasoned Action focuses on the role of individual attitudes and subjective norms in shaping behavioural intentions and subsequent adoption. It suggests that individuals are more likely to adopt a technology if they perceive it positively and if they perceive social pressures or norms to adopt it (Aging In Place, 2020).

The Unified Theory of Acceptance and Use of Technology expands on the Theory of Reasoned Action by incorporating additional factors such as perceived usefulness, perceived ease of use, and facilitating conditions. This framework suggests that users are more likely to adopt a technology if they perceive it as useful, and easy to use, and if they have the necessary resources and support to do so (Venkatesh, Morris, & Davis, 2003)

The Diffusion of Innovation model, on the other hand, focuses on the process of how innovations spread and gain adoption within a social system. It identifies different adopter categories based on their willingness to embrace new technologies and emphasizes the role of communication, social influence, and the relative advantage of the innovation in driving adoption (Aging In Place, 2020).

By leveraging these frameworks, organizations, such as the University of the Witwatersrand in the context mentioned, can develop a comprehensive adoption model tailored to their specific digital platform for student services. Such a model would consider the unique factors influencing adoption within the university's student population and guide the design and implementation of strategies to foster successful adoption and utilisation of the digital platform.

Table 0 - 1 below lists a few of these theories.

Acronym	Theory/framework	Originated by	Year
TAM3	Technology acceptance model 3	Venkatesh and Bala	(2008)
UTAUT	Unified theory of acceptance and use of technology	Venkatesh et al.	(2003)
TAM2	Technology acceptance model 2	Venkatesh and Davis	(2000)
DIT	Theory of diffusion of innovations	Rogers	(1995)
TPB	Theory of planned behavior	Ajzen	(1991)
TOE	Technology–organization–environment framework	Tornatzky and Fleischer	(1990)
TAM	Technology acceptance model	Davis	(1989)
IDT	Innovation diffusion theory	Rogers	(1995)
ECT	Expectancy confirmation theory	Oliver	(1980)
TRA	Theory of reasoned action	Fishbein and Ajzen	(1975)

Table 0 - 1 - Technology adoption theories and framework

2.3 Unified Theory of Acceptance Use of Technology 2 (UTAUT2)

The Unified Theory of Acceptance and Use of Technology (UTAUT2) has emerged as a widely adopted framework for investigating technology acceptance in various organizations and contexts (Venkatesh, Morris, & Davis, 2003). UTAUT2 comprehensively explains technology adoption and usage within a specific theoretical framework. It has become a common theory of choice in many studies examining technology acceptance (Escobar-Rodríguez & Carvajal-Trujillo, 2013).

UTAUT2 has been applied in a range of fields, including education. For instance, Park et al. (2007) and Wang & Wang (year) explored the acceptance and usage of mobile phone technologies in educational settings, while Wang et al. (2009) focused on virtual learning technologies. These studies utilised UTAUT2 as a foundational framework to investigate the factors influencing technology adoption and usage.

The UTAUT2 model comprises seven main components that collectively contribute to the acceptance and use of technology (Venkatesh, Thong, & Xu, 2012). These components are:

I. Performance Expectancy: The degree to which individuals believe that using the technology will enhance their performance and productivity.
II. Social Influence: The influence of social factors, such as the opinions, norms, and recommendations of others, on individuals' technology acceptance and usage.
III. Effort Expectancy: The perception of the ease and effort required to use the technology effectively.

IV. Facilitating Conditions: The availability of resources, support, and infrastructure necessary for using the technology.
V. Hedonic Motivation: The extent to which individuals derive pleasure, enjoyment, or fun from using the technology.
VI. Price Value: The perceived value and cost-effectiveness of using the technology.
VII. Habit: The degree to which technology usage becomes automatic and ingrained in individuals' routines.

Furthermore, the model also explains the individual variances such as age, gender and experience as shown in Figure 0 - 3 below (Venkatesh et al., 2012).

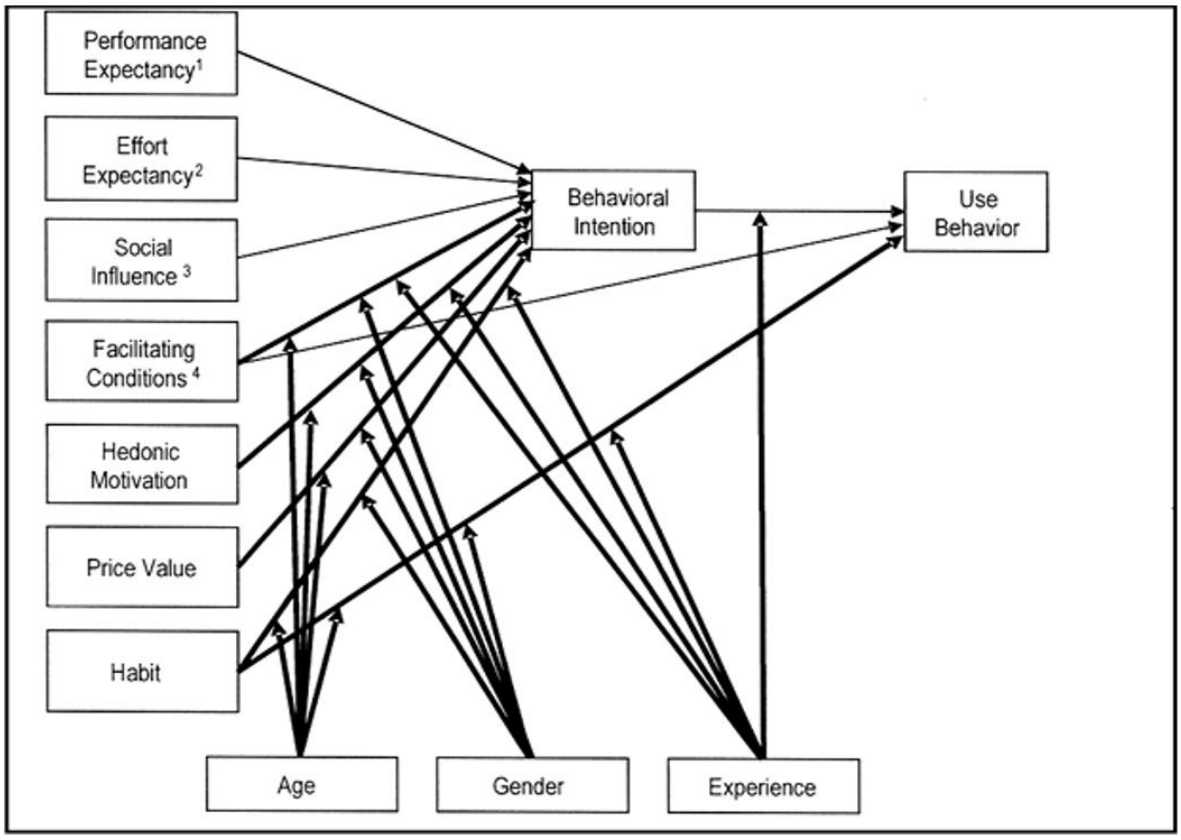


Figure 0 - 3 - UTAUT2 (Venkatesh et al., 2012)

2.4 Research Framework and Hypotheses

Figure 0 - 4 below, shows the proposed conceptual research framework for the adoption and continued usage of digital platforms at the University of the

Witwatersrand based on the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2). This framework aims to identify and understand the factors influencing behavioural intentions to adopt and use digital platforms among users in the university context.

The proposed conceptual research framework consists of seven key components derived from UTAUT2. The proposed conceptual research framework also incorporates age, gender, and experience as individual variances. These variances recognize that individuals may have unique characteristics and backgrounds that influence their behavioural intentions and usage patterns of the digital platform.

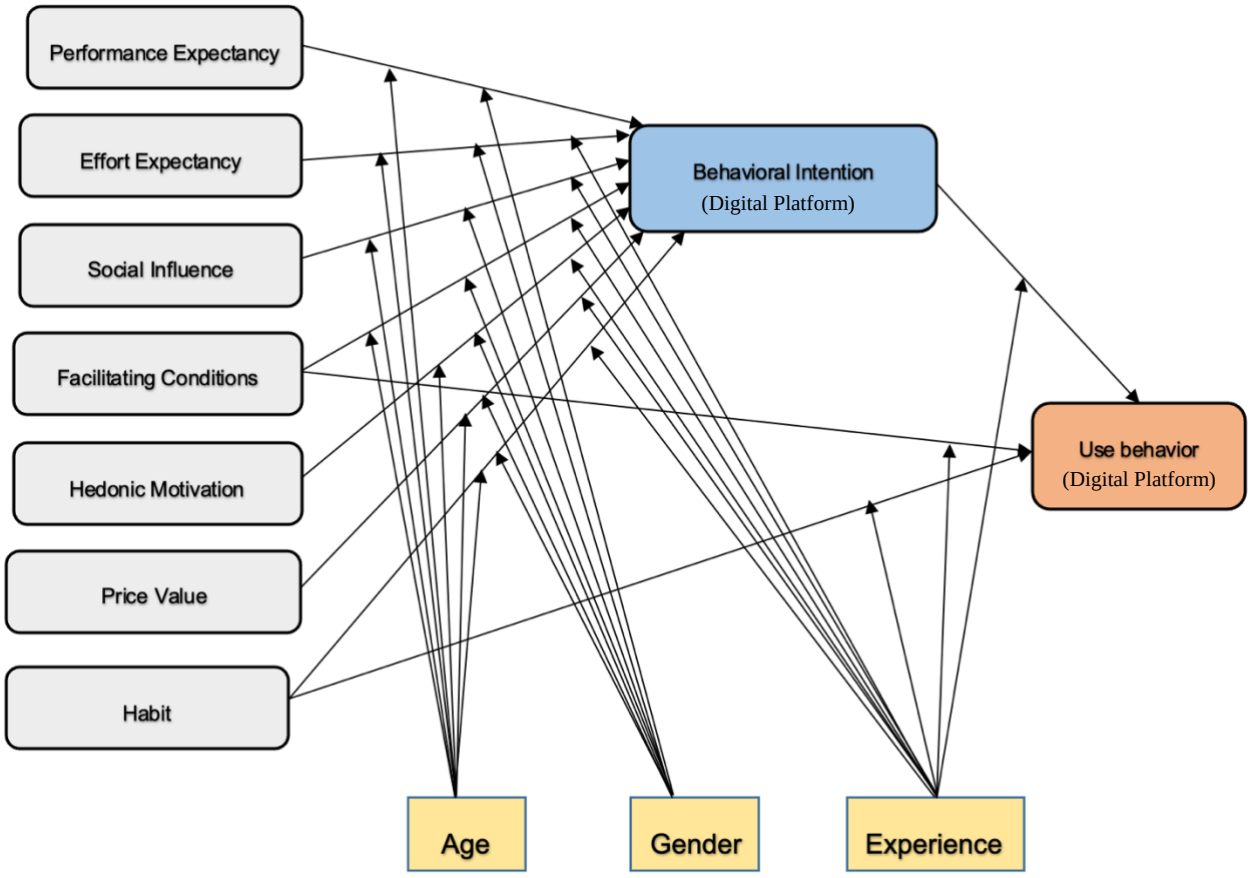


Figure 0 - 4 - Proposed Conceptual Research Framework

2.4.1. Behavioural Intention

Behavioural intention, as defined by Aarts, Verplanken, and van Knippenberg (1998), refers to an individual's opinion or inclination regarding their intention to continue or

discontinue a specific behaviour. In the context of the adoption and usage of a digital platform, behavioural intention represents an individual's intention to engage with and utilize the platform in the future.

Hypothesis 1: Proposes that behavioural intention will have an influence on user behaviour concerning the digital platform. This hypothesis suggests that the strength of an individual's intention to adopt and continue using the digital platform will directly impact their actual behaviour in terms of engaging with and utilizing the platform.

2.4.2 Performance Expectancy

Performance expectancy, as defined by Venkatesh et al. (2003), refers to the belief held by an individual regarding the extent to which using a particular system or technology will enable them to achieve gains in job performance. In the context of digital platforms in an educational setting, performance expectancy relates to the perception of students regarding how the use of these platforms will contribute to their academic performance and the successful completion of various tasks.

Hypothesis 2: Suggests that performance expectancy will exert a significant positive influence on the behavioural intention to use digital platforms among students at the University of the Witwatersrand. This hypothesis posits that students who perceive digital platforms as valuable tools that enhance their academic performance are more likely to have a stronger intention to adopt and use these platforms.

Research by Wu et al. (2007) supports the notion that student behaviour and acceptance of performance expectancy have a high correlation. This indicates that students' beliefs about the positive impact of digital platforms on their academic performance can strongly influence their acceptance and intention to use these platforms.

At the University of the Witwatersrand, students engage in various academic tasks such as accessing academic information, submitting assignments, collaborating with peers, and performing transactions like fee payments. The successful completion of these tasks is crucial for their academic success. Therefore, it becomes essential for

students to perceive digital platforms as effective tools that can facilitate these activities and enhance their overall academic performance.
When students have a high perception of performance expectancy associated with the digital platforms provided by the university, they are more likely to develop a positive behavioural intention to use these platforms. They may believe that utilising these platforms will contribute to improved access to academic resources, streamlined administrative processes, enhanced communication with instructors and peers, and ultimately lead to better academic outcomes.

By testing Hypothesis 2, the study explored the impact of performance expectancy on students' behavioural intentions to use digital platforms. Understanding this relationship can help the university in designing and implementing strategies to highlight the benefits and value of these platforms, ultimately encouraging greater adoption and utilisation among students. It may involve providing training, demonstrating the platform's features, and showcasing success stories of improved academic performance associated with the use of digital platforms.

2.4.3 Effort Expectancy

Effort expectancy, as defined by Venkatesh et al. (2012), refers to the perceived degree of ease associated with using a particular system or technology. In the context of digital platforms at the University of the Witwatersrand, effort expectancy relates to the ease with which students can adapt to and navigate the platforms.
Hypothesis 3: Proposes that effort expectancy will have a significant influence on the behavioural intention of students to use digital platforms. This hypothesis suggests that student's perception of the ease of use and user-friendliness of the platforms will impact their intention to adopt and utilize these platforms.

Previous studies have examined various constructs within effort expectancy, including ease of use, perceived ease of use, and complexity. Among these constructs, ease of use has been identified as the factor that exerts the most significant influence on students' acceptance and usage of digital platforms (Venkatesh et al., 2012).

The University of the Witwatersrand must prioritize the implementation of digital platforms that are easy to use and relevant to the student lifecycle. Students need to perceive these platforms as intuitive and user-friendly, with clear navigation and a minimal learning curve. If students find the platforms cumbersome or difficult to navigate, it may hinder their willingness to adopt and engage with the technology.

By testing Hypothesis 3, the study explored the impact of effort expectancy on student's behavioural intention to use digital platforms. Understanding the relationship between effort expectancy and behavioural intention can inform the university's efforts in designing user-friendly platforms and providing appropriate training and support to enhance student's experience and increase their intention to use these platforms. Efforts to improve effort expectancy may involve conducting user testing and feedback sessions, providing user-friendly interfaces and intuitive design, offering training sessions and tutorials, and continuously refining the platforms based on user feedback.

By prioritizing ease of use and addressing potential barriers, the university can foster a positive perception of the platforms and encourage students to embrace their adoption and continued usage for a seamless and productive digital learning experience.

2.4.4 Social Influence

Social influence refers to the impact that others, such as family members, friends, or peers, can have on an individual's decision to adopt and use technology. In the contemporary era, characterised by Generation X and Generation Y, social groups play a substantial role in shaping individuals' attitudes and behaviours (Jorjafki et al., 2018)

Hypothesis 4: Social influence will impact significantly influence individuals' behavioural intention to use digital platforms. This hypothesis posits that social groups' opinions, recommendations, and experiences can influence an individual's intention to adopt and digital platforms.

The influence of social groups on technology adoption has been widely and recognised in research. Individuals tend to seek validation, support, and recommendations from their social networks when considering the adoption of new technologies (Gallup et al., 2012; Krause et al., 2021). They are influenced by the experiences and perceptions of their family members, friends, or peers who have already adopted and used digital platforms.

In the University of the Witwatersrand context, social influence can play a crucial role in shaping students' behavioural intention to use digital platforms. Positive experiences shared by fellow students, recommendations from classmates, or endorsements from faculty members can enhance student's confidence and motivation to engage with the platforms.

2.4.5 Facilitating Conditions

As defined by Venkatesh et al. (2003), facilitating conditions refers to the extent to which there is an adequate capacity and availability of technical resources to support the implementation and usage of new technology. In the context of digital platforms, facilitating conditions encompass the necessary infrastructure, resources, and technical support required for the smooth functioning and integration of these platforms within the university environment.

Hypothesis 5: Suggests that facilitating conditions will significantly influence individuals' behavioural intention to use digital platforms. This hypothesis posits that the availability of technical resources, such as software applications that can be accessed on various devices like smartphones, tablets, and iPads, as well as seamless integration with internal systems, plays a crucial role in shaping individuals' intention to adopt and utilise these platforms.

By testing Hypothesis 5, the study explored the impact of facilitating conditions on students' behavioural intention to use digital platforms. Understanding the influence of facilitating conditions can guide the university in ensuring that the necessary technical resources are in place, optimising the integration of the platforms with existing systems, and providing ongoing technical support to students.

2.4.6 Hedonic Motivation

Hedonic motivation, as described by Mikalef, Giannakos, and Pateli (2012), refers to the pleasure or happiness derived from using technology and adapting to it. It encompasses individuals' subjective experience and enjoyment from their interactions with digital platforms. Hedonic motivation can be influenced by factors such as the user interface design, the aesthetics of the platform, the novelty and excitement of using new features, and the overall satisfaction derived from the platform experience.

Hypothesis 6: Proposes that hedonic motivation will significantly individuals significantly influencing individuals' behavioural intention to use digital platforms. This hypothesis suggests that when individuals perceive digital platforms to be enjoyable, pleasurable, and capable of delivering positive user experiences, it will positively impact their intention to adopt and utilise these platforms.

By testing Hypothesis 6, the study explored the impact of hedonic motivation on students' behavioural intention to use digital platforms. Understanding the role of hedonic motivation can guide the university in designing and enhancing the user experience of the platforms, incorporating engaging and enjoyable elements that foster a positive emotional connection with the technology.

2.4.7 Price Value

As defined by Venkatesh et al. (2012), price value refers to the perceived benefits or value that individuals associate with digital platforms in relation to the monetary costs associated with their usage. When evaluating whether to adopt and use digital platforms, students consider the benefits they can derive from the platforms compared to the financial investment required.

In the context of the University of the Witwatersrand, students may assess the price value of digital platforms by considering various factors (Alalwan, Dwivedi, & Rana, 2017; Dodds, Monroe, & Grewal, 1991; Venkatesh et al., 2012). For example, the platforms may offer cost savings by eliminating the need for physical visits to service

offices, reducing transportation expenses, and providing convenient access to academic resources and services.

Hypothesis 7: Suggests that price value will positively impact students' behavioural intention to use digital platforms. This hypothesis posits that when students perceive that the benefits and value offered by the platforms outweigh the associated monetary costs, it will positively influence their intention to adopt and utilise the platforms.

By testing Hypothesis 7, the study examined the impact of price value on student's behavioural intention to use digital platforms. Understanding the role of price value can guide the university in effectively communicating the benefits and value proposition of the platforms to students, highlighting the cost-saving features, and addressing any concerns or barriers related to the monetary investment.

2.4.8 Habit

Habit, as defined by Amoroso and Lim (2017), refers to the tendency or inclination of individuals to engage in repetitive behaviours associated with using technology. It represents the automatic and subconscious nature of the behaviour that arises from previous experiences and familiarity with digital platforms. When individuals have developed a habit towards using digital platforms, they are more likely to continue using them in the future.

Hypothesis 8: Proposes that habit will significantly influence students' behavioural intention to use digital platforms. This hypothesis suggests that when students have established a habit of using digital platforms, it will positively impact their intention to continue using them.

By testing Hypothesis 8, the study explored the impact of habit on students' behavioural intention to use digital platforms. Understanding the role of habit can guide the university in promoting students' continuous usage and adoption of digital platforms. It emphasizes the importance of providing positive and seamless experiences with the platforms to cultivate habitual usage patterns.

2.4.9 Age

Age is considered a moderator variable in relation to the usage of digital platforms, as different generations exhibit varying levels of engagement and adoption. Specifically, Jorjafki et al. (2018) highlight the prominence of generation X and generation Y populations in terms of their higher utilization of digital platforms compared to other generational cohorts.

This finding suggests that age plays a crucial role in shaping the behavioural patterns and preferences of individuals when it comes to digital platforms. Generation X, born between the early 1960s and early 1980s, and generation Y (also known as millennials), born between the early 1980s and mid-1990s, have grown up in an era marked by rapid technological advancements and digital innovations.

By acknowledging age as a moderator, the university can adapt its digital platform offerings to cater to the distinct characteristics and requirements of various generational cohorts. This targeted approach enhances user satisfaction, promotes adoption, and fosters long-term engagement with digital platforms across different age groups.

2.4.10 Gender

Gender is considered a moderator variable in relation to the usage of digital platforms, as studies indicate differential engagement and usage patterns between males and females. Specifically, Nikolopoulou (2020) highlights that females tend to utilize digital platforms more frequently than their male counterparts. This finding suggests that gender plays a role in shaping the preferences, behaviours, and motivations of individuals when it comes to digital platform usage. While the reasons for this gender disparity may vary across contexts and populations, several factors could contribute to the higher engagement of females with digital platforms. Nikolopoulou (2020) suggests that sociocultural factors and gender socialization play a role in influencing females' digital platform usage. For instance, females may be more inclined to use social media platforms as a means of communication and social connection, aligning

with societal expectations and norms surrounding relationship building and maintaining social connections.

By acknowledging gender as a moderator, the university can adopt a more nuanced approach to developing and marketing digital platforms, catering to the diverse needs, preferences, and behaviours of both male and female users. This approach promotes user satisfaction, fosters a sense of belonging, and cultivates long-term engagement with digital platforms among different gender groups.

2.4.11 Experience

Experience serves as a moderator variable in the adoption and continuous usage of digital platforms, as individuals' prior experience with similar technologies can significantly influence their attitudes and behaviours towards adopting and utilizing new platforms (Nikolopoulou, 2020).

Nikolopoulou (2020) highlights that individuals who possess a higher level of experience in using digital platforms are more likely to exhibit greater comfort, proficiency, and confidence in engaging with new technologies. They have developed a certain level of familiarity with the functionalities, features, and interfaces commonly found in digital platforms, which reduces barriers to adoption and encourages continued usage.

Moreover, experienced users often benefit from accumulated knowledge and skills gained through prior interactions with digital platforms. They are more adept at navigating through different applications, understanding the purpose and utility of various features, and troubleshooting potential issues that may arise during usage.

By considering experience as a moderator, the university can tailor its strategies for platform adoption and usage, offering differentiated support and resources based on users' varying levels of experience. This approach promotes user satisfaction, enhances the overall user experience, and encourages long-term engagement and loyalty to digital platforms.

2.5 Summary of chapter

Digital platforms have emerged as a transformative force, profoundly influencing innovation and reshaping economic and social structures. During the discussion, various aspects and dimensions of these platforms were explored, shedding light on their multifaceted nature. The adoption and utilisation of digital platforms carry significant consequences for users, exerting a far-reaching impact on their lives and activities.

CHAPTER 3. RESEARCH METHODOLOGY

3.1 Research Paradigm and Approach

According to Cohen, Manion, and Morrison (2007), research methodology encompasses a range of elements such as beliefs, perception, and awareness, forming a comprehensive system that involves the researcher's theoretical perspectives and conceptual frameworks (Lincoln, Lynham, & Guba, 2011; Denscombe, 2011). This holistic approach allows researchers to effectively investigate and analyse phenomena of interest. To gather data for their research, researchers can employ various methods, including case studies, qualitative measures, and data collection techniques such as focus groups, observations, and interviews (Antwi & Hamza, 2015). These methods facilitated the exploration and interpretation of rich, context-specific information that provides valuable insights for this study.

3.2 Research Strategy

3.2.1 Research design and strategy

According to Zikmund, Babin, Carr, and Griffin (2013), a research design serves as a framework that provides a plan, structure, and strategy for gathering and analyzing data. In this particular study, a research design was adopted to accommodate the quantitative approach that was employed.

The chosen strategy for data collection in this study was the survey method. Surveys offer several advantages, including cost-effectiveness and the ability to collect primary data quickly and in real-time (Connolly, 2007). Furthermore, surveys are widely used in quantitative research designs due to their ability to capture large amounts of data from a diverse sample (Field, 2009).

The survey in this study was conducted in the English language. To ensure the representativeness of the sample, the researchers employed stratified random sampling as the data collection method (Kadilar et al., 2003). This approach involves dividing the target population into distinct strata and then randomly selecting participants from each stratum. By employing stratified random sampling, the study

obtained a sample that accurately reflects the characteristics of the population under investigation.

In terms of measuring responses, the researchers utilised a 7-point Likert scale. This scale allowed participants to rate their level of agreement or disagreement with specific statements, with a range from 1 (indicating "strongly disagree") to 7 (indicating "strongly agree"). The Likert scale provides a standardized format that facilitated the collection and analysis of quantitative data, enabling researchers to obtain insights into participant's attitudes, opinions, and perceptions (Zikmund et al., 2013).

3.3 Population and sample

3.3.1 Population

The target population for this study was registered students from both undergraduate and postgraduate programs, encompassing individuals of all ages and genders who willingly participated in the research. Due to practical considerations and time constraints, the study focused exclusively on students from the University of the Witwatersrand (Wits).

Selecting participants from the Wits student body allowed for a more manageable and feasible sample size, ensuring efficient data collection and analysis within the given timeframe. Additionally, restricting the sample to Wits students allowed for a specific context to be examined, as their experiences and familiarity with certain platforms and technologies may vary from those of students at other institutions.

To be eligible for participation, students had internet access and were acquainted with popular platforms such as Airbnb, Uber, Google Maps, Facebook, TikTok, Instagram, WhatsApp, and YouTube. This criterion was essential as the study aimed to investigate student's perceptions and behaviours related to these widely used online platforms. Familiarity with these platforms ensured that participants were able to provide meaningful insights and perspectives regarding their experiences and interactions within the digital realm.

The University of the Witwatersrand, as of the latest available data in 2021, had an estimated student population exceeding 35,000 (The University of the Witwatersrand, 2021). This large student body offered a diverse and representative pool of potential

participants, increasing obtaining comprehensive and varied responses that contributed to the study's overall findings and conclusions.

3.3.2 Sample

The survey in this study initially targeted students from the Faculty of Commerce, Law, and Management at the University of the Witwatersrand. However, it had the potential to be extended to students from other faculties such as Humanities, Engineering, Science, and Health Sciences, thereby broadening the scope of the study and allowing for a more comprehensive understanding of the topic at hand.

For selected participants for the survey, a nonprobability sampling method will be employed. Nonprobability sampling, as highlighted by Blumberg et al. (2014), was a technique that allowed for certain segments of the population to be excluded from the selection process. This approach provided flexibility in participant recruitment, ensuring that a diverse range of perspectives can be captured within the study.

In accordance with the guidelines outlined by Tabachnick and Fidell (2003), the survey data will be analyzed using a recommended rule of thumb for quantitative studies. This rule stated that for every item on the research instrument, there should be approximately 5 to 10 respondents. Given that the research instrument in this study consisted of 11 items, a minimum sample size of 150 participants was suggested to ensure robust statistical analysis and meaningful conclusions.

In terms of the length of the survey, the study included a set of questions that does not exceed 48 items. This choice was supported by previous research studies conducted by Venkatesh et al. (2012), Wang and Liao (2007), Chiu and Wang (2008), and Kim et al. (2004), where 48 questions were utilised for participant responses. By adhering to this precedent, the survey instrument maintained a manageable length while still capturing relevant and comprehensive data.

3.4 The research instrument

The items used in the questionnaire for this study were adapted from previous research studies that examined the adoption of digital platforms. The questionnaire

was administered online, utilising the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) framework proposed by Venkatesh et al. (2012). This framework has been widely employed in research related to technology adoption and provides a comprehensive theoretical foundation for understanding individuals' acceptance and usage of digital platforms.

The questionnaire consisted of multiple sections. The first section collected demographic information from participants, such as age, gender, and experience with digital platforms. This information enabled the researcher to analyse the data from various demographic perspectives, identifying potential patterns or differences in adoption behaviour.

The main section of the questionnaire encompasses the key components of the UTAUT2 framework, including performance expectancy, social influence, effort expectancy, facilitating conditions, hedonic motivation, price value, and habit. These components have been identified as influential factors in individuals' decision-making processes when adopting digital platforms (Tarhini et al., 2016a; Teo, 2009; Venkatesh & Zhang, 2010).

By examining these factors, the study gained insights into the drivers and barriers associated with adopting digital platforms among the student population.

Before completing the questionnaire, participants were provided with a brief explanation of the study's objectives and the importance of their participation. Additionally, an example of how to answer the questions was prepared to ensure clarity and consistency in responses.

The survey was conducted using Qualtrics software, allowing participants to answer the questions independently. As Cooper and Schindler (2011) highlighted, online questionnaires offered several advantages, including a broader geographical reach, efficiency, and quick data collection. These advantages make online questionnaires a practical and effective for gathering data from a large and diverse student population.

Measures

Participants in this study were requested to provide demographic information, including age, gender, and any relevant experience with digital platforms. In addition to demographic data, participants were asked to respond to statements assessing their perceptions across eight key constructs. These constructs encompass usefulness, ease of use, attitude towards use, and other pertinent factors.

The statements and measures employed for each construct have been carefully selected based on an extensive review of the existing literature. Drawing upon prior research on the adoption of digital platforms, validated scales and items have been chosen participants perceptions and attitudes participants perceptions and attitudes capture participants' perceptions and attitudes effectively. These measures have demonstrated reliability and validity in assessing the constructs under investigation.

Table 0 - 2 below shows the examples of measures that will be included in the constructs. Please refer to Appendix A. This appendix, located at the end of this research report, provides a complete list of the research questions, corresponding items, and response options. Appendix A serves as a valuable resource, ensuring transparency and a clear reference for the survey instrument employed in this study.

Variable	No of Items	Measurements Examples	Scale	Source
Behavioural Intention	4	If I have access to digital platforms, I intend to use them	Likert 1-7	Venkatesh et al., (2012)
Performance expectancy	4	Digital platforms will be convenient for me to use them	Likert 1-7	
Effort expectancy	4	It is easy to adopt digital platforms	Likert 1-7	
Social influence	4	People who are close to me think that I should adopt digital platforms	Likert 1-7	
Facilitating conditions	4	I have resources that allow me to adopt digital platforms	Likert 1-7	
Hedonic motivation	4	I enjoy using digital platforms	Likert 1-7	
Price Value	4	Using digital platforms is not expensive	Likert 1-7	
Habit	4	Using digital platforms has become a habit for me	Likert 1-7	
Use of Platforms	4	How many times are you using digital platforms	Selection	

Table 0 - 2 - Summary of Research Instrument

3.5 Procedure for data collection

In this study, participants were explicitly informed of their right not to participate and their ability to discontinue completing the questionnaire at any point during data collection. No financial or otherwise incentives were offered to participants to ensure voluntary participation and avoid any potential bias in responses.

Qualtrics software served as the primary tool for designing, distributing, and capturing the survey data to facilitate the data collection process. An email containing a survey link was sent to students (see Appendix B), allowing for convenient and accessible participation. Survey responses were monitored using an online mail survey system, ensuring efficient data management and supervision.

In compliance with university policies and ethical guidelines, the researcher obtained all necessary approvals, including ethics clearance, before initiating data collection. Appendix C provides documentation of the obtained permissions, demonstrating the researcher's adherence to established protocols.

The targeted population for this study consisted of registered students from undergraduate and postgraduate programs at the University of the Witwatersrand (Wits) of all ages and genders. Eligible participants had then the internet, and internet access, and familiar with the platforms under investigation. These inclusion criteria ensured that the study captures insights and experiences from students possess the necessary background knowledge to provide meaningful responses.

Participants spent an average of 15 minutes to complete the survey. This estimation considered the number of questions and the level of detail required for each response. By providing an estimate, participants better allocate their time and plan accordingly to complete the survey within a reasonable timeframe.

To access the relevant appendices, please refer to Appendix B, which contains an email example with a link to the survey, and Appendix C, which includes the necessary permissions and approvals obtained for this research project. These appendices and at the end of this research report, offer supplementary information and supporting

documentation for a comprehensive understanding of the study's methodology and compliance with ethical guidelines.

3.6 Data analysis and interpretation

This study analysed the quantitative data collected using statistical software, specifically employing correlation and regression techniques. Correlation and regression analysis provide a robust analytical framework for examining relationships between variables and testing theoretical models (Hair et al., 2017). One of the advantages of these techniques is their versatility in accommodating various distributions and population sizes, making them well-suited for analysing diverse datasets. (Hair et al., 2017).

The analysis focused on the seven main constructs: performance expectancy, social influence, effort expectancy, facilitating conditions, hedonic motivation, price value, and habit. These constructs, derived from the UTAUT2 framework, were evaluated to understand their impact on adopting digital platforms.

Moreover, the effects of potential moderators, such as age, gender, and experience, were tested. Moderators provide valuable insights into how individual characteristics may influence the relationships between the constructs and the adoption of digital platforms. By exploring the influence of these moderating factors, the study gained a deeper understanding of how different demographic and experiential variables shaped individual attitudes and behaviours in relation to digital platform adoption, as shown in Figure 0 - 4

3.7 Validity and reliability

Before conducting hypothesis testing, it is crucial to evaluate the validity and reliability of the research instrument. As stated by Bhattacherjee (2012), construct validity assesses the extent to which the measurement accurately represents the underlying construct being measured. In order to establish content validity, a pilot survey was conducted with a sample of 5 Wits students, encompassing individuals of various ages and genders, as recommended by Sekaran and Bougie (2011). This pilot survey

helped to ensure that the survey instrument captures the desired content and provides a representative sample.

Furthermore, as the data was collected from different registered Wits students, the researcher evaluated the reliability of the instrument employed (Drost, 2011). This assessment was carried out using Cronbach's Alpha measurement (Cronbach, 1951), which indicates the internal consistency of the items within each construct. By examining the reliability of the instrument, the researcher was able to establish the connection between the constructs and moderators more effectively.

Additionally, it is important to note that when the relationships between the constructs and moderators were strongly correlated with each other, it enhanced the overall reliability and validity of the research findings (Nunnally & Bernstein L, 1994). This emphasises the significance of establishing robust relationships and associations between the variables under investigation.

3.9 Ethics considerations

The researcher affirms that the research has been undertaken independently, reflecting his own efforts. Recognizing the paramount importance of protecting participant confidentiality, the researcher guarantees that all participants were assured anonymity throughout the study. Kumar (2019) emphasises the significance of ethical conduct, which necessitates the careful consideration of principles that align with the standards set by the relevant profession. To further enhance his ethical understanding and ensure adherence to ethical guidelines, the researcher enrolled in one of the esteemed ethical training workshops offered by the University of the Witwatersrand. Options such as Ethics training at Wits, Training and Resources in Research Ethics Evaluation, provided valuable insights into ethical practices and professional conduct.

To obtain informed consent from participants, the researcher included a consent form provided by the university. This consent form, marked as Appendix D, is appended at the end of the research report. The goal of the study, the voluntary nature of

participation, the guarantee of participant confidentiality, and the ability to withdraw from the study without penalty are all outlined in this clear and thorough document that is included in the survey.

In line with ethical requirements, the researcher sought permission from the university to conduct the research, demonstrating his commitment to conducting the study in accordance with established regulations and protocols. This permission approval letter, marked as Appendix E, is appended at the end of the research report.

CHAPTER 4. PRESENTATION OF FINDINGS RESEARCH PLANNING

4.1 Introduction

In this chapter, we will present the findings of our study, which aims to explore the various aspects and dimensions of digital platform adoption within the student population at the University of the Witwatersrand. Through a comprehensive analysis of the data collected, we delve into the factors that influence the adoption of digital platforms for student services, providing valuable insights into the perceptions and behaviours of students in relation to these platforms. The key research questions addressed in this research are: How do students perceive the usefulness of digital platforms for student services? What is the relationship between students' intention to use digital platforms and their actual usage behaviour?

The study examined student perceptions regarding the extent to which these platforms offer value and contribute to their overall student experience. By understanding how students perceive the usefulness of digital platforms, the researchers gained insights into the factors that influence their acceptance and adoption of these platforms as tools for accessing student services. This knowledge is essential in developing strategies and interventions to enhance the perceived usefulness of digital platforms and promote their effective utilisation among the student population.

The researchers also explored the relationship between students' intention to use digital platforms and their actual usage behaviour. By examining this relationship, the study aimed to understand whether students' expressed intentions to use these platforms align with their subsequent actions and engagement. This analysis helped uncover patterns and dynamics that influence the adoption and utilisation of digital platforms among students.

Understanding the factors that bridge the gap between intention and behaviour is crucial in designing interventions that encourage and facilitate the actual usage of these platforms, thereby maximising their potential in supporting student services.

4.2 Dataset Structure

Table 0 - 3 below outlines the structure of a dataset that includes survey responses related to students' perceptions and experiences with digital platforms for their study and daily life. The dataset consists of 444 students regarding their attitudes, intentions and experiences with digital platforms in their personal lives and study routines. The dataset contains a mix of valid and missing entries across various dimensions related to digital platform usage.

Statistics

		I use digital platforms in my life or my study life	I intend to continue using digital platforms in my life or my study life	I have interest in using digital platforms more frequently in the future	It is worth recommending digital platforms to other students	I find digital platforms efficient to use for my studies.	Using digital platforms will enable me to complete class activities more quickly.	Using digital platforms can increase the effectiveness of my academic performance.	Digital platforms will increase my chances of getting higher grades.	I find digital platforms easy to use	Interaction with digital platforms is clear and understandable
N	Valid	363	363	363	362	348	348	348	348	337	337
	Missing	81	81	81	82	96	96	96	96	107	107

Interaction with digital platforms is clear and understandable	It is easy to be skilful at using digital platforms	Learning how to use digital platforms is easy for me	Having digital platforms is a status for my institution	The university has been helpful in the use of digital platforms	Friends and family encourage me to use digital platforms	Using digital platforms enhances my position as a student	I have the resources required to access and use digital platforms	I have the knowledge required to use digital platforms	I think that digital platforms will fit well in higher education	The ICT support department in the university helps me when I face difficulties digital platform	Using digital platforms is fun
337	337	337	327	327	327	327	316	316	316	316	315
107	107	107	117	117	117	117	128	128	128	128	129

Using digital platforms is entertaining	Using digital platforms is enjoyable	I hate digital platforms	Digital platforms are not expensive	I can save money using digital platforms	Digital platforms are good value for money	Using digital platforms has become a habit for me	Using digital platforms is part of my daily life	I am addicted to digital platforms	Age	Gender	Level of study
315	315	315	311	311	311	307	307	307	444	444	444
129	129	129	133	133	133	137	137	137	0	0	0

Table 0 - 3 - Dataset from the survey responses

Among the students who provided valid responses, 363 said they had used digital platforms for their studies or daily lives, and 362 said they planned to keep using them. A total of 363 students indicated that they would like to use digital platforms more regularly in the future. In terms of suggestions, 348 students thought it was worthwhile to advise other students to use digital platforms. 348 students who responded said they found digital platforms useful for their studies. A slightly smaller number of 327 students thought that using these platforms could improve the performance of their studies. Based on responses, 348 students said digital platforms were simple to use, and the same number thought there was easy-to-understand engagement with these digital platforms. A substantial number of 315 students stated that friends and family had encouraged them to utilise digital platforms, and 327 students thought the university had supported their use of digital platforms. 316 students also said they have the tools necessary to access and use digital platforms. While 311 students thought digital platforms were inexpensive, 307 students thought they were good value for money, and 316 students said utilising them may help them save money. The

dataset also shows that there are a considerable amount of missing responses, ranging from 81 to 137 entries in various dimensions. This might affect how thoroughly specific variables are analysed and interpreted.

The demographic variables included in the data set, such as age, gender, and level of study, offer valuable insights into the potential correlations between these variables and attitudes and views towards digital platforms.

4.3 Demographics

4.3.1 Age

Table 0 - 4 below shows the age distribution of the respondents, who were largely between the ages of 18 and 35 (81.7% of the sample). The age groups of 26 to 35 years (33.1%) and 18 to 25 years (33.1%) are the greatest groupings. The representation decreases beyond this point, with 6.3% of respondents older than 46 and 14.0% of respondents between the ages of 36 and 46. The survey's data reveals a notable proportion of younger users, suggesting a substantial presence of younger students overall. Representation of older age groups declines with age.

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		137	30.9	30.9	30.9
	{"ImportId":"QID39"}	1	.2	.2	31.1
	18yrs – 25yrs	147	33.1	33.1	64.2
	26yrs – 35yrs	69	15.5	15.5	79.7
	36yrs – 46yrs	62	14.0	14.0	93.7
	Over 46yrs	28	6.3	6.3	100.0
	Total	444	100.0	100.0	

Table 0 - 4 - Age

4.3.2 Gender

The gender breakdown of respondents is displayed in Table 0 - 5 below, with females making up the majority of participants (40.8% of the questioned population) and males coming in second at 26.6%. Third-gender or non-binary respondents make up a lesser percentage, 0.9%. Remarkably, 0.7% of respondents said they would prefer not to reveal their gender. The data demonstrates a fairly diversified representation, with a greater proportion of female respondents in this survey than male respondents.

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		137	30.9	30.9	30.9
	{"ImportId":"QID40"}	1	.2	.2	31.1
	Female	181	40.8	40.8	71.8
	Male	118	26.6	26.6	98.4
	Non-binary / third gender	4	.9	.9	99.3
	Prefer not to say	3	.7	.7	100.0
	Total	444	100.0	100.0	

Table 0 - 5 - Gender

4.3.3 Level of study

The distribution of respondents by their level of study is shown in Table 0 - 6 below. It reveals that postgraduate (PG) students made up a major portion of the questioned population (40.3%), followed by undergraduate (UG) students (28.6%). This indicates that a higher percentage of people enrolled in postgraduate programmes than in undergraduate programmes participated in this study. When it comes to postgraduate students, the data shows a more considerable representation than that of undergraduate students.

Level of study

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		137	30.9	30.9	30.9
	{"ImportId":"QID41"}	1	.2	.2	31.1
	PG	179	40.3	40.3	71.4
	UG	127	28.6	28.6	100.0
	Total	444	100.0	100.0	

Table 0 - 6 - Level of study

4.4 Summary of Dataset Structure

The dataset provides an in-depth analysis of how students use digital platforms. Of the 363 participants who gave valid responses, 363 students acknowledged that they currently use digital platforms for their academics or daily lives, and almost the same number of students—362—expressed intentions to continue using them in the future. Additionally, 363 students stated that they would like to use digital platforms more frequently for their academic studies. Perception-wise, a significant number of

students (348) thought digital platforms were helpful for their studies, while a slightly smaller percentage (327 students) thought they may improve academic performance. At the same time, 348 students believed that recommending digital platforms to others was useful. According to the influence and support scale, 315 students said that friends and family recommended they use digital platforms. At the same time, 348 students believed that recommending digital platforms to others was useful. According to the influence and support scale, 315 students said that friends and family recommended them to use digital platforms, while 327 students said the institution had encouraged them to do so. In terms of cost, 311 students thought digital platforms were inexpensive, 307 thought they were good value, and 316 said using these platforms may help save money. The dataset did, however, show several limitations. There were a significant number of missing responses (81–137 responses), which could make big factor analyses and interpretations tricky.

The dataset offers helpful details on demographics, showing that the greatest age groups are 18 to 25 and 26 to 35 years old, with a decrease in participation beyond these ranges. The majority of participants—40.8%—are female, followed by men (26.6%). Non-binary or third-gender respondents make up 0.9% of the sample, while 0.7% of respondents said they would prefer not to disclose their gender. The data presents a diverse gender representation. Additionally, the level of study analysis shows that, at 40.3%, postgraduate (PG) students outnumber undergraduate (UG) students in the surveyed population, indicating a larger participation percentage of PG students in the study.

4.5 Reliability

The consistency of a set of measurements made by a measuring device is known as reliability. If a measure reliably produces the same result, it is considered reliable. The fifty dependent variables' inter-item reliability, or Cronbach's alpha reliability coefficients, were obtained. Table 0 - 7 below shows an example of the Cronbach's alpha test result for the dependent variables. The reliability is better the closer it approaches 1.0 (119). Reliabilities are generally regarded as bad if they are less than .60, satisfactory if they are between .70 and .80, and good if they are greater than .80 (Creswell, 2014).

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.778	.497	7

Table 0 - 7 - Reliability Statistics

The consistency and internal reliability of a set of items regarding the University of the Witwatersrand's adoption of digital platforms for student services was evaluated using reliability statistics, such as Cronbach's Alpha. There are seven items on the scale. With an overall Cronbach's Alpha of .778, these items appear to have moderate to good internal consistency, suggesting that they measure a similar underlying construct related to the adoption of digital platforms. The concern is raised by the lower Cronbach's Alpha value of .497 when standardised components are taken into account. This variance might suggest that the standardisation process affected the reliability estimate, possibly having an alternative effect on the perceived consistency of the items.

The dataset item in Table 0 - 8 below shows varying degrees of impact on corrected item-total correlation and reliability, but it contributes significantly to the overall scale mean. The item-total statistics for each item in the scale are displayed in the table. These statistics include the Mean if the item was deleted, Scale Variance if the item was deleted, Corrected Item-Total Correlation, and Cronbach's Alpha if the item was deleted.

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
BI	134.8697	660.963	.796	.899
PE	136.6221	671.014	.802	.898
EE	136.8306	676.939	.789	.899
SI	138.5147	710.453	.693	.907
FC	136.1596	677.657	.854	.894
HM	140.3257	766.488	.614	.913
PV	144.8274	775.124	.533	.919
HB	143.1629	742.451	.707	.907

Table 0 - 8 - Total Statistics

The mean score drops to 134.8697 when the BI item is deleted, highlighting its favourable effect on the scale mean overall. There is a strong positive relationship with the entire scale, as indicated by the corrected item-total correlation of 0.796. The

reliability of the scale is slightly higher to 0.899 when BI is removed, highlighting its importance for maintaining internal consistency.

The impact of the PE item on the overall scale mean is demonstrated by the decrease in mean score to 136.6221 that occurs upon deleting the item. There is a strong positive correlation with the overall scale indicated by the high adjusted item-total correlation of 0.802. The reliability of the scale is slightly increased to 0.898 when PE is removed, highlighting its importance in maintaining internal consistency. The mean score drops to 136.8306 if the EE item is removed, indicating its positive contribution to the overall scale mean. A high positive relationship with the whole scale is indicated by the corrected item-total correlation of 0.789. Reliability rises to 0.899 when EE is removed, highlighting its importance in maintaining internal consistency.

The SI item has an impact on the overall scale mean; its deletion results in a mean score falling to 138.5147. A positive relationship with the whole scale is indicated by the moderate corrected item-total correlation of 0.693. The reliability increases to 0.907 when SI is removed, highlighting its significance for internal consistency.

The removal of the FC item causes the mean score to drop to 136.1596, highlighting the positive effect of this item on the overall scale mean. A strong positive correlation with the overall scale is shown by the high corrected item-total correlation of 0.854. Reliability decreases to 0.894 when FC is removed, indicating how important it is to maintain internal consistency. The mean score drops to 140.3257 if the HM item is deleted, demonstrating its positive impact on the scale mean as a whole. The slightly higher adjusted item-total correlation of 0.614 indicates a favourable relationship with the scale as a whole. The reliability increases significantly to 0.913 when HM is removed, highlighting its impact on internal consistency.

The impact of the PV item on the overall scale mean is demonstrated by a decrease in mean score to 144.8274 following its deletion. A favourable relationship with the overall scale is suggested by the moderate adjusted item-total correlation of 0.533. Reliability increases to 0.919 after PV is removed, indicating how important PV is to preserving internal consistency. The mean score drops to 143.1629 if the HB item is removed, indicating its positive contribution to the scale mean overall. A positive

connection with the entire scale is indicated by the strong adjusted item-total correlation of 0.707. The reliability increases to 0.907 when HB is removed, highlighting its importance in preserving internal consistency.

4.6 Regression

4.6.1 Descriptive Statistics

The University of the Witwatersrand's descriptive statistics about the use of digital platforms for student services are shown in Table 0 - 9 below. The key variations and different responses across key areas are highlighted by these statistics, which offer valuable insight into the attitudes and views of the participants.

	Mean	Std. Deviation	N
BI	23.8893	5.50586	307
PE	22.1368	5.24506	307
EE	21.9283	5.18117	307
SI	20.2443	4.92250	307
FC	22.5993	4.84455	307
HM	18.4332	3.95042	307
PV	13.9316	4.17492	307
HB	15.5961	4.08645	307

Table 0 - 9 - Descriptive Statistics

A strong positive inclination towards adopting digital platforms for student services is shown by the mean BI score of 23.8893. The moderate standard deviation of 5.50586, however, points to some response variability and highlights the variety of viewpoints among the sample of 307 participants. The average PE score of 22.1368 indicates respondents speak strongly about digital platforms in terms of ease of use. The sample's moderate degree of variability in replies is indicated by the standard deviation of 5.24506, which reflects a diversity of opinions. A generally positive attitude toward the perceived effort required for using digital platforms is indicated by the mean EE score of 21.9283. On the other hand, the sample's standard deviation of 5.18117 indicates some variation in responses, indicating different points of view.

Concerning the adoption of digital platforms, the mean SI score of 20.2443 indicates an average level of social influence. The sample's moderate variation in replies is indicated by the standard deviation of 4.92250, which indicates a range of viewpoints within the sample. The average FC score of 22.5993 indicates that there are favourable conditions that encourage the use of digital platforms. On the other hand, the sample's moderate variation in replies is indicated by the standard deviation of 4.84455, indicating a range of points of view. A considerable degree of hedonic motivation in the adoption of digital platforms is indicated by the mean HM score of 18.4332. The relatively low standard deviation of 3.95042 indicates a higher degree of consistency in the sample's perception due to fewer variations in replies.

A moderate level of perceived value related to the adoption of digital platforms is shown by the mean PV score of 13.9316. The sample's moderate variety in replies is indicated by the standard deviation of 4.17492, which reflects the variation of opinions within the sample. A moderate level of habitual tendencies in the adoption of digital platforms is indicated by the mean HB score of 15.5961. The sample's standard deviation of 4.08645 indicates a moderate degree of variation in responses, indicating different views within the sample as a whole.

4.6.2 Correlations

The correlation analysis for the University of the Witwatersrand's usage of digital platforms for student services is shown in Table 0 - 10 below. According to Wu et al. (2007), the Pearson Correlation Coefficients look at the relationships between important factors and highlight the interdependencies that affect the adoption process.

		BI	PE	EE	SI	FC	HM	PV	HB
Pearson Correlation	BI	1.000	.745	.736	.568	.798	.484	.369	.641
	PE	.745	1.000	.683	.668	.721	.540	.429	.594
	EE	.736	.683	1.000	.561	.753	.526	.474	.595
	SI	.568	.668	.561	1.000	.646	.447	.488	.490
	FC	.798	.721	.753	.646	1.000	.569	.473	.673
	HM	.484	.540	.526	.447	.569	1.000	.414	.515
	PV	.369	.429	.474	.488	.473	.414	1.000	.435
	HB	.641	.594	.595	.490	.673	.515	.435	1.000
Sig. (1-tailed)	BI	.	<.001	<.001	<.001	<.001	<.001	<.001	<.001
	PE	.000	.	.000	.000	.000	.000	.000	.000
	EE	.000	.000	.	.000	.000	.000	.000	.000
	SI	.000	.000	.000	.	.000	.000	.000	.000
	FC	.000	.000	.000	.000	.	.000	.000	.000
	HM	.000	.000	.000	.000	.000	.	.000	.000
	PV	.000	.000	.000	.000	.000	.000	.	.000
	HB	.000	.000	.000	.000	.000	.000	.000	.
N	BI	307	307	307	307	307	307	307	307
	PE	307	307	307	307	307	307	307	307
	EE	307	307	307	307	307	307	307	307
	SI	307	307	307	307	307	307	307	307
	FC	307	307	307	307	307	307	307	307
	HM	307	307	307	307	307	307	307	307
	PV	307	307	307	307	307	307	307	307
	HB	307	307	307	307	307	307	307	307

Table 0 - 10 - Correlations

PE ($r = 0.745$, $p < 0.001$), EE ($r = 0.736$, $p < 0.001$), FC ($r = 0.798$, $p < 0.001$), and HB ($r = 0.641$, $p < 0.001$) all show significant positive correlations with BI. Additionally, BI shows somewhat positive correlations with HM ($r = 0.484$, $p < 0.001$), PV ($r = 0.369$, $p < 0.001$), and SI ($r = 0.568$, $p < 0.001$). With BI ($r = 0.745$, $p < 0.001$), EE ($r = 0.683$, $p < 0.001$), FC ($r = 0.721$, $p < 0.001$), and HB ($r = 0.594$, $p < 0.001$), PE shows strong positive relationships. Along with SI ($r = 0.668$, $p < 0.001$), HM ($r = 0.540$, $p < 0.001$), and PV ($r = 0.429$, $p < 0.001$), PE also shows moderately good correlations.

With BI ($r = 0.736$, $p < 0.001$), PE ($r = 0.683$, $p < 0.001$), FC ($r = 0.753$, $p < 0.001$), and HB ($r = 0.595$, $p < 0.001$), EE has significant positive correlations. Along with SI ($r = 0.561$, $p < 0.001$), HM ($r = 0.526$, $p < 0.001$), and PV ($r = 0.474$, $p < 0.001$), EE also shows moderately positive correlations.

With BI ($r = 0.568$, $p < 0.001$), PE ($r = 0.668$, $p < 0.001$), EE ($r = 0.561$, $p < 0.001$),

FC (r = 0.646, p < 0.001), and HB (r = 0.490, p < 0.001), SI shows somewhat positive correlations. Moreover, there are slightly positive correlations between SI and PV (r = 0.488, p < 0.001) and HM (r = 0.447, p < 0.001). With regards to BI (r = 0.798, p < 0.001), PE (r = 0.721, p < 0.001), EE (r = 0.753, p < 0.001), SI (r = 0.646, p < 0.001), and HB (r = 0.673, p < 0.001), FC shows strong positive correlations. A slightly positive correlation (r = 0.569, p < 0.001) has been seen between FC and both HM and PV (r = 0.473, p < 0.001). For BI (r = 0.484, p < 0.001), PE (r = 0.540, p < 0.001), EE (r = 0.526, p < 0.001), SI (r = 0.447, p < 0.001), FC (r = 0.569, p < 0.001), and HB (r = 0.515, p < 0.001), HM has somewhat positive correlation. Additionally, HM and PV have a slightly positive correlation (r = 0.414, p < 0.001).

With BI (r = 0.369, p < 0.001), PE (r = 0.429, p < 0.001), EE (r = 0.474, p < 0.001), SI (r = 0.488, p < 0.001), FC (r = 0.473, p < 0.001), HM (r = 0.414, p < 0.001), and HB (r = 0.435, p < 0.001), PV has poor positive correlations. BI (r = 0.641, p < 0.001), PE (r = 0.594, p < 0.001), EE (r = 0.595, p < 0.001), SI (r = 0.490, p < 0.001), FC (r = 0.673, p < 0.001), HM (r = 0.515, p < 0.001), and PV (r = 0.435, p < 0.001) are among the variables with which HB shows high correlations.

4.6.3 ANOVA Findings

The ANOVA findings, which are shown in Table 0 - 11 below, provide light on the dependent variable's variance and indicate how well the regression model predicts the observed changes. The following important factors are taken into account: Residuals, the Total Variance, and the Regression Model.

The outcomes provide strong evidence for the regression model's overall efficacy in predicting the University of the Witwatersrand's use of digital platforms for student services. The low p-value (<.001) and significant F-statistic highlight the capacity of the model to explain a considerable amount of the variance in the dependent variable.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6761.783	7	965.969	114.866	<.001[b]
	Residual	2514.451	299	8.410		
	Total	9276.235	306			

Table 0 - 11 - ANOVA findings

The statistical significance of the regression model, which includes multiple independent variables, in explaining the observed variations in the use of digital platforms for student services is shown by the significant F-statistic ($F = 114.866$, $p < 0.001$). The significant Mean Square value of 965.969 indicates a significant contribution of the model to the explained variance.

After taking into account the regression model, the residuals show the unexplained variance in the dependent variable. The average unexplained variance for the residuals is 8.410, as indicated by the Mean Square value.

The residuals separate the unexplained variation from the total variance in the dependent variable, and the regression model explains the remaining variance.

4.6.4 Model Summary

A summary of the predictive performance and goodness-of-fit for the regression model analysing factors influencing the adoption of digital platforms for student services is given in the Model Summary, which is shown in Table 0 - 12 below. According to the summary, a significant amount of the variance in the adoption of digital platforms for student services can be explained by the regression model that includes the selected factors. Strong fit is indicated by the high R Square value, and the combined influence of the predictors is highlighted by the considerable F Change. The Durbin-Watson statistic, however, points to the need for caution and possible investigation of residual autocorrelation.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.854[a]	.729	.723	2.89992	.729	114.866	7	299	<.001	1.796

Table 0 - 12 - Model Summary

The predictor variables in the model account for approximately 72.9% of the variance in the use of digital platforms for student services, according to the coefficient of determination (R Square), which stands at 0.729. With the number of predictors taken into account, the Adjusted R Square comes out to 0.723, which is a more conservative assessment of the explanatory power of the model. A substantial positive correlation between the observed and anticipated values is indicated by the R value of 0.854.

The contribution of the predictors to the total explained variance is shown by the R Square Change of 0.729. The model's statistical significance is supported by the large F Change ($F = 114.866$, $p < 0.001$), which indicates that the predictors combined account for an important part of the model's explanatory power. The residuals are examined for autocorrelation using the Durbin-Watson statistic. A result of 1.796 indicates that positive autocorrelation may exist and suggests additional research.

4.6.5 Coefficients

The unstandardized and standardized coefficients for each of the predictors in the regression model are shown in the coefficients Table 0 - 13 below provides information about the relative importance and size of each predictor's effect on the dependent variable for the use of digital platforms for student services.

The relative significance of each predictor is indicated by the standardised coefficients (Beta). The adoption of digital platforms is positively influenced by several significant predictors, including PE, EE, FC, and HB. These predictors are shown by their low p-values which are found in the Sig. column of the coefficients table and positive Beta values. Additionally, there is a negative influence on PV, indicating that a decline in perceived value is linked to a decline in adoption. There is no statistically significant correlation between SI and HM and the dependent variable.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	1.814	.917		1.978	.049	.010	3.619		
	PE	.308	.053	.294	5.876	<.001	.205	.412	.362	2.759
	EE	.242	.052	.228	4.633	<.001	.139	.345	.375	2.666
	SI	-.024	.049	-.021	-.478	.633	-.120	.073	.470	2.130
	FC	.467	.064	.411	7.345	<.001	.342	.592	.289	3.456
	HM	-.068	.054	-.049	-1.256	.210	-.174	.038	.603	1.657
	PV	-.111	.048	-.084	-2.291	.023	-.206	-.016	.673	1.485
	HB	.170	.058	.126	2.944	.003	.056	.284	.494	2.026

Table 0 - 13 - Coefficients

The influence of different predictors on the adoption of digital platforms for student services is shown in the coefficients table. Using all predictors set to zero, the constant, which is the estimated mean level of the dependent variable, gives a marginally significant t-statistic of 1.978 (p = 0.049). Going on to the predictors, we see that EE and PE have positive influences with highly significant p-values (<.001) and strong Beta values (0.294 and 0.228, respectively). FC, with a highly significant t-statistic of 7.345 (p <.001) and a Beta of 0.411, shows possibilities as a strong positive predictor. As indicated by habit's significant beta (0.126) and t-statistic of 2.944 (p = 0.003), HB also has a positive effect on adoption.

On the other hand, there is a negative correlation between PV and the adoption of digital platforms for student services (Beta = -0.084, p = 0.023), suggesting that a decrease in PV is associated with a decline in the adoption of digital platforms for student services. Their non-significant t-statistics and betas that are near zero suggest that SI and HM do not show statistically significant correlations with the dependent variable.

Collinearity data show that there are no significant issues with multicollinearity among the predictors, with tolerance values ranging from 0.289 to 0.673 and variance inflation factor (VIF) values from 1.485 to 3.456.

4.6.6 Collinearity Diagnostics

Collinearity diagnostics assesses how multicollinear the regression model's predictor variables are (Belsley, 1991). The eigenvalues, condition indices, and variance

proportions for each dimension are displayed in Table 0 - 14 below, providing information on the degree of collinearity between the predictors.

The majority of the variance is explained by the first dimension, which includes all predictors, according to the diagnostics. While few dimensions exceed 30, the Condition Indices for the remaining dimensions generally indicate moderate collinearity. Significantly, the Variance Proportions for the second and third dimensions show a focused influence on HB and PV, respectively.

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions (Constant)	PE	EE	SI	FC	HM	PV	HB
1	1	7.814	1.000	.00	.00	.00	.00	.00	.00	.00	.00
	2	.051	12.414	.01	.02	.01	.00	.01	.01	.93	.02
	3	.035	14.856	.51	.03	.02	.01	.01	.11	.00	.15
	4	.032	15.697	.00	.05	.00	.36	.00	.05	.01	.41
	5	.022	18.662	.11	.02	.30	.23	.01	.12	.00	.34
	6	.021	19.388	.32	.01	.18	.07	.01	.66	.00	.00
	7	.015	23.070	.03	.88	.14	.26	.03	.04	.04	.00
	8	.010	27.623	.01	.01	.35	.07	.93	.01	.01	.08

Table 0 - 14 - Collinearity Diagnostics

With an Eigenvalue of 7.814, the first dimension in this analysis represents the main source of variance. Eigenvalues of subsequent dimensions are dropping, suggesting that their significance is waning.

Condition indices quantify the level of data collinearity. If the Condition Index is more than 30, there may be collinearity problems. The Condition Indices in this model show that the collinearity is generally low to moderate, ranging from 1.000 to 276.23 for each dimension.

The percentage of each predictor's variance that can be attributed to collinearity with other predictors is shown by the variance proportion. The Variance Proportions for the first dimension are all 0.00, indicating a low degree of collinearity. Growing proportions are shown in subsequent dimensions, especially for some predictors, suggesting possible collinearity issues.

4.6.7 Casewise Diagnostics

Casewise diagnostics offers valuable information about specific cases that could significantly impact the regression model. The data on Standardised Residuals, the

observed value of the dependent variable (BI), Predicted Values, and Residuals for specific scenarios are provided in Table 0 - 15 below.

The diagnostics point up two specific scenarios (x163 and 164) that have abnormally high standardised residuals, indicating that it's possible the model didn't forecast the observed values for these cases correctly. In these circumstances, the dependent variable has been overestimated, as indicated by the positive residuals.

Casewise Diagnostics[a]

Case Number	Std. Residual	BI	Predicted Value	Residual
x163	3.236	25.00	15.6144	9.38558
164	3.300	25.00	15.4313	9.56868

Table 0 - 15 - Casewise Diagnostics

Casewise diagnostics provide valuable information about specific scenarios that could significantly impact the regression model. Standardised Residuals, the observed value of the dependent variable (BI), Predicted Values, and Residuals for specific scenarios are all included in the table.

In this case, x163 indicates a comparatively higher standardised residual of 3.236, indicating a substantial deviation between the observed and projected values of the dependent variable (BI) in the model. A positive residual of 9.38558 results from the observed value of 25.00 being much greater than the projected value of 15.6144.

Likewise, Case 164 indicates a high 3.300 standardised residual, suggesting a significant variation between the observed and projected values. A positive residual of 9.56868 results from the observed value of 25.00 exceeding the anticipated value of 15.4313.

4.6.8 Residuals Statistics

As demonstrated in Table 0 - 16 below, residual statistics provide critical insights into the residuals' distribution and characteristics, reflecting the regression model's overall performance and accuracy.

There appears to be no systemic bias in the statistics, which show an acceptable distribution of residuals and expected values. The standardised and mean residuals are almost zero, indicating that the model' s predictions generally agree well with the observed data. The variety and spread of the residuals and anticipated values are revealed by the standard deviations.

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	6.0448	29.9557	23.8893	4.70078	307
Residual	-8.44388	9.56868	.00000	2.86656	307
Std. Predicted Value	-3.796	1.291	.000	1.000	307
Std. Residual	-2.912	3.300	.000	.988	307

Table 0 - 16 - Residuals Statistics

With an average predicted value (mean) of 23.8893, the expected values range from 6.0448 to 29.9557. The spread or dispersion of the predicted values is shown by the 4.70078 standard deviation. The number of observations in the dataset is reflected in the sample size (N), which is 307.

The range of residuals, which indicate the difference between the actual and predicted values, is -8.44388 to 9.56868. Since the mean residual is nearly low, the model's predictions generally line up with the observed data. The remaining variability around the mean is expressed as a 2.86656 standard deviation.

Standardised predictions fall between -3.796 and 1.291, representing the predicted values in standard deviation units. The values are consistently scaled and centred around the mean, as indicated by the mean standardised predicted value of zero and the standard deviation of 1.000.

The range of standardised residuals, which express the difference between actual and expected values in standard deviation units, is -2.912 to 3.300. Since the mean standardised residual is zero, the model's predictions appear to be unbiased on average. The distribution of the standardised residuals is shown by the 0.988 standard deviation.

Hypothesis summary

Hypothesis	P-value	Decision
(Constant)	0.049	Rejected
PE	< 0.001	Rejected
EE	< 0.001	Rejected
SI	0.633	Accepted
FC	< 0.001	Rejected
HM	0.210	Accepted
PV	0.023	Rejected
HB	0.003	Rejected

Table 0 - 17 - Hypothesis summary

These decisions shown in Table 0 - 17 above are based on the conventional significance level of 0.05. If the P-value is less than 0.05, the null hypothesis is rejected, indicating that the corresponding coefficient is statistically significant. If the P-value is greater than or equal to 0.05, the null hypothesis is accepted, suggesting that the coefficient is not statistically significant.

4.7 Conclusion

The University of the Witwatersrand's investigation of the use of digital platforms for student services provides a thorough examination of the views of the students. The information, which includes responses from overall 444 students, shows that students generally have a positive attitude towards digital platforms, and most of them strongly want to keep using them for different kinds of services. Nonetheless, significant concerns emerge from a portion of participants, indicating potential challenges in promoting widespread adoption. These challenges highlight the complex factors that affect students' adoption of digital platforms and highlight how crucial it is to address different viewpoints to successfully implement these changes. The research is further improved by demographic analysis, which reveals interesting details about the user base. The necessity for a complex understanding of adoption patterns is shown by the presence of younger participants, a diverse gender representation, and a higher engagement rate among postgraduate students. Although the reliability analysis confirms the survey items' internal consistency, it presents questions regarding the

standardisation procedure. This realisation adds to the ongoing discussion about the accuracy of studies examining the adoption of technology and encourages academics to evaluate standardization's effect on reliability estimates seriously.

The study's main component, regression analysis, identifies important factors affecting adoption. Significant contributors include elements like perceived ease of use, effort anticipation, facilitating conditions, and habitual tendencies. Even though the model accounts for a significant 72.9% of the variance, the Durbin-Watson statistic raises a red flag, indicating that residual autocorrelation may exist and that more research is necessary. Academic institutions looking to increase student acceptance of digital platforms can benefit from this detailed understanding of predictors, which offers actionable insights. An integrated understanding of the elements influencing students' interactions with digital platforms is made possible by the integration of financial views, the investigation of demographic details, and the identification of predictors. This study can be a useful tool for academic institutions navigating the rapidly changing digital service market because it provides information that can guide strategic choices and actions for a more inclusive and successful adoption plan for the use of digital platforms for student services.

CHAPTER 5: DISCUSSION OF THE FINDINGS

5.1 Introduction

Chapter 4 of this report presented significant findings related to the perceptions and usage behaviours of students regarding digital platforms for student services. This chapter aims to provide an in-depth analysis and discussion of these findings, addressing the following research questions:

1.4.1 How do students perceive the usefulness of digital platforms for student services?

1.4.2 What is the relationship between students' intention to use digital platforms and their actual usage behaviour?

The first research question delves into how students perceive the usefulness of digital platforms for student services. By examining the survey responses and feedback from participants, this chapter thoroughly examines the various dimensions of perceived usefulness and effectiveness, gauging the digital platforms' ability to deliver intended outcomes; efficiency, assessing the optimization of resources and processes; convenience, evaluating the user-friendly nature and accessibility of these platforms; and overall satisfaction, capturing the holistic experience of students in using digital platforms for student services. The analysis not only informed but provided valuable insights into students' perspectives on the benefits and advantages offered by these platforms in facilitating student services.

The second research question focuses on understanding the relationship between students' intention to use digital platforms and their actual usage behaviour. Through an in-depth analysis of the survey data, this chapter explores the alignment between students' expressed intentions to utilise digital platforms and their demonstrated behaviours in practice. The research aimed not only to ascertain the degree of coherence but also examined the underlying factors influencing the alignment or divergence between intention and behaviour. Factors such as technological proficiency, institutional support and individual preferences were considered to provide

a comprehensive picture of the complex relationship between students' goals to use digital platforms.

5.2 Exploring the Perceived Usefulness of Digital Platforms for Student Services

A notable finding from the dataset is the existence of respondents who express a high level of dislike for digital platforms (Chapman & Johnson, 2002; Hoyer et al., 2001). This sentiment indicates a negative perception and highlights potential challenges in promoting widespread adoption and acceptance of digital platforms among students. Respondents generally agree that digital platforms are not expensive (Lei & Xiong, 2018), indicating a perception of affordability. Moreover, they believe that utilizing digital platforms can lead to cost savings (Lei & Xiong, 2018). This positive perception of the financial aspects associated with digital platforms suggests that individuals recognize the potential economic benefits they offer. The majority of respondents perceive digital platforms as providing good value for money (Zhang & Dong, 2018). This finding suggests that respondents believe the benefits derived from using digital platforms outweigh the costs, further supporting the notion that digital platforms are seen as worthwhile investments in the context of student services.

The dataset reveals an interesting trend, indicating that using digital platforms has become a habit for many respondents (Himoonga & Phiri, 2020). They report a high level of habit formation and agreement that digital platforms are an integral part of their daily life (Himoonga & Phiri, 2020). This finding implies that digital platforms have become deeply ingrained in individuals' routines and seamlessly integrated into their day-to-day activities. The findings imply a transformative shift, portraying the deep-rooted influence of digital platforms as they influence and shape daily lives, highlighting their significant role in modern lifestyle patterns.

While the dataset does not explicitly indicate a high level of agreement regarding addiction to digital platforms, there is a suggestion that some respondents perceive themselves as being addicted (Zhang et al., 2021). This insight underscores the potential for excessive reliance on digital platforms and highlights the need to maintain a balanced and mindful approach to their usage. This information is an important

reminder of how crucial it is to continue using digital platforms in a balanced and cautious manner. This reminder raises important questions about the nature and implications of such perceived addiction, shedding light on the multifaceted dimensions of excessive reliance on digital platforms. It prompts a deeper exploration into the psychological and behavioural aspects of users' relationships with these technologies. The dataset allows for a deeper analysis, promoting a complicated understanding of the factors that contribute to this perceived addiction, such as the nature of digital content, interface design, and individual psychological predispositions.

The dataset includes details of demographic information such as age, gender, and level of study. Analysing this information in conjunction with the respondents' perspectives on digital platforms can provide deeper insights into how these factors influence attitudes, behaviours, and perceptions (Cabigon, 2013; Yassin, 2021; Shariff & Shah, 2019). A holistic analysis can provide a deeper understanding of the complex interplay between demographics and the varied ways individuals engage with and perceive digital platforms. This multifaceted approach enhances the richness of the analysis, shedding light on the potential socio-cultural and individual influences that underlie attitudes towards digital platform usage. A further investigation into these potential socio-cultural and individual influences elements serves as a powerful tool for researchers, educators, and policymakers alike. It not only unveils patterns and correlations but also provides a tailored understanding of the broader socio-demographic factors at play. Such insights are instrumental in crafting targeted interventions, fostering digital literacy, and designing platforms that align with the diverse needs and preferences of distinct demographic groups. In essence, this multifaceted analytical approach is integral to unlocking a comprehensive understanding of the complex interplay between demographics and the evolving landscape of digital platform engagement.

5.3 Investigating the Relationship between Intention and Actual Usage Behaviour

The relationship between intention and actual usage behaviour in the context of digital platforms can be explored based on the information provided (Lei & Xiong, 2018; Zhang & Dong, 2018; Himoonga & Phiri, 2020; Zhang et al., 2021).
The dataset reveals that some respondents express a high level of dislike for digital platforms (Chapman & Johnson, 2002; Hoyer et al., 2001). This negative perception can potentially affect their intention to use these platforms. Individuals who hold negative attitudes towards digital platforms may be less inclined to engage with them actively, resulting in lower actual usage behaviour. The negative attitude prompts a thorough investigation of the psychological foundations influencing people's attitudes and perceptions of digital platforms. Understanding how these negative attitudes can limit the intention and subsequently shape real-world engagement is important for clarifying the complexities of user behaviour in the digital landscape.

On the other hand, respondents generally perceive digital platforms as affordable and believe that utilizing them can lead to cost savings (Zhang & Dong, 2018). This positive perception of the financial aspects associated with digital platforms suggests that individuals recognize the potential economic benefits they offer. Such beliefs can positively influence their intention to use digital platforms and, subsequently, increase their actual usage behaviour. Moreover, the majority of respondents perceive digital platforms as providing good value for money (Zhang & Dong, 2018). This perception indicates that they believe the benefits derived from using digital platforms outweigh the costs. This positive evaluation of value reinforces the intention to use digital platforms and can lead to higher levels of actual usage behaviour.

The dataset also highlights the presence of a high level of habit formation and agreement among respondents that digital platforms are an integral part of their daily life (Himoonga & Phiri, 2020). This finding suggests that individuals have developed routines and integrated digital platforms seamlessly into their day-to-day activities. Strong habit formation implies that intention translates into actual behaviour, as

individuals engage with digital platforms regularly. This regular consistency provides proof that the intention to use digital platforms goes beyond theoretical confirmation and becomes a real usage behaviour in day-to-day activities.

While the dataset does not explicitly indicate a high level of agreement regarding addiction to digital platforms, there is a suggestion that some respondents perceive themselves as being addicted (Zhang et al., 2021). This perception of addiction can have varying effects on intention and actual usage behaviour. Individuals who perceive themselves as addicted may exhibit higher levels of intention and engage more frequently with digital platforms. However, excessive reliance on digital platforms can also lead to negative outcomes, such as reduced control and potential negative impacts on well-being. The demographic information included in the dataset, such as age, gender, and level of study, can provide further insights into the relationship between intention and actual usage behaviour. Analysing this information in conjunction with the respondents' perspectives on digital platforms can reveal how these factors influence attitudes, behaviours, and perceptions. For example, younger individuals might demonstrate higher intention and greater actual usage behaviour due to their familiarity and comfort with digital technologies (Dewing, 2012; Frith, 2017).

5.4 Conclusion

The findings from the dataset highlight the challenges and opportunities in promoting the perceived usefulness of digital platforms for student services. Respondents' negative perceptions and dislike for digital platforms emphasize the need for addressing concerns and enhancing their perceived value. On the other hand, positive perceptions of affordability, cost savings, and value for money indicate the potential economic benefits associated with digital platforms. The dataset also reveals the strong habit formation and integration of digital platforms into daily life, emphasizing the relationship between intention and actual usage behaviour. Finally, demographic factors provide additional insights into the influences on attitudes, behaviours, and perceptions regarding digital platforms.

To effectively promote the adoption and acceptance of digital platforms among students, it is crucial to address concerns, highlight the economic benefits, and foster responsible usage habits. Targeted strategies should be developed considering the unique characteristics and needs of different student groups. By leveraging the perceived usefulness of digital platforms and understanding the dynamics of intention and actual usage behaviour, educational institutions can optimize student services and support student success in the digital age.

CHAPTER 6: CONCLUSIONS & RECOMMENDATIONS

6.1 Introduction

The culmination of the study's findings is synthesised and presented in this comprehensive chapter. Through an in-depth analysis, the chapter provides a coherent summary of the research objectives and their alignment with the obtained results. It sheds light on students' perceptions regarding the usefulness of digital platforms for student services and delves into the intricate relationship between students' intention to use these platforms and their actual usage behaviour. The chapter goes beyond the mere presentation of findings and aims to provide actionable insights and recommendations for key stakeholders involved in the implementation and enhancement of digital platforms in student services. These recommendations are based on the research findings and aim to address the challenges identified and capitalize on the opportunities revealed.

Moreover, the chapter acknowledges the limitations encountered during the study. By openly addressing these limitations, readers gain a nuanced understanding of the research process and the potential impact on the generalisability and validity of the findings. This transparency enhances the credibility and reliability of the study's conclusions. Recognising that research is an iterative process, the chapter concludes by outlining avenues for further investigation. These suggestions for future research build upon the current study's findings and aim to expand knowledge and understanding in the field of digital platforms for student services. By highlighting areas that warrant further exploration, this chapter contributes to the ongoing scholarly discourse and encourages continuous improvement and innovation in the realm of digital platforms.

6.2. Overview of the study and objectives

The primary focus of this study was to investigate the adoption of digital platforms for student services specifically at the University of the Witwatersrand. Recognising the importance of understanding students' perspectives, the study sought to address how students perceive the usefulness of these digital platforms and how their intention to use these platforms relates to their actual usage behaviour.

To achieve these research objectives, the study outlined the following two distinct areas of investigation:

6.2.1 To explore the perceived usefulness of digital platforms for student services. By examining students' perspectives, the study sought to uncover their perceptions regarding the value and efficacy of these platforms in facilitating various student services.

6.2.2 To focus on investigating the relationship between students' intention to use digital platforms and their actual usage behaviour. By examining this relationship, the study aimed to shed light on whether students' intentions to use digital platforms translate into their actual engagement and utilisation of these platforms.

These research objectives formed the backbone of the study, guiding the research design, data collection, and analysis processes to address the research questions.

6.3. Conclusions

6.3.1 Conclusion for exploring the perceived usefulness of digital platforms for student services

Regarding the adoption of digital platforms for student services specifically at the University of the Witwatersrand, exploring the perceived usefulness of digital platforms for student services is very important. The study found that the presence of respondents expressing a high level of dislike for digital platforms indicates a negative perception that poses challenges to promoting widespread adoption and acceptance among students and addressing these negative perceptions is crucial for fostering a favourable environment for digital platform utilisation.

The study found that respondents generally perceive digital platforms as affordable and recognize the potential for cost savings. This positive perception of the financial aspects associated with digital platforms indicates that individuals understand and appreciate the economic benefits they offer. It further suggests that students see digital platforms as a worthwhile investment, further supporting their intention to use these platforms for student services.

Furthermore, the majority of respondents perceive digital platforms as providing good value for money and this perception underscores the belief that the benefits derived from using digital platforms outweigh the costs. It reinforces the notion that digital platforms are seen as valuable tools in the context of student services, encouraging their adoption and active usage among students.

The study also highlights the prevalence of habit formation among respondents, indicating that using digital platforms has become deeply ingrained in their routines and seamlessly integrated into their day-to-day activities. This finding emphasises the integral role digital platforms play in students' lives, suggesting a strong likelihood of continued engagement and usage.

On the other hand, while the study not explicitly indicate a high level of agreement regarding addiction, there is a suggestion that some respondents perceive themselves as being addicted to digital platforms. This insight raises concerns about excessive reliance and highlights the importance of promoting a balanced and mindful approach to their usage. Encouraging responsible usage and maintaining control over digital platforms should be prioritised to mitigate potential negative impacts.

Additionally, the demographic information included in this study, such as age, gender, and level of study, offers an avenue for deeper analysis. By examining the interplay between these factors and students' perspectives on digital platforms, a more nuanced understanding of how demographics influence attitudes, behaviours, and perceptions can be gained. This analysis can inform targeted strategies and tailored approaches to address specific demographic groups and enhance the overall effectiveness of student services.

6.3.2 Investigating the Relationship between Intention and Actual Usage Behaviour

Regarding the adoption of digital platforms for student services specifically at the University of the Witwatersrand and the relationship between intention and actual usage behaviour in the context of digital platforms is a complex interplay influenced by various factors. The study provided valuable insights into this relationship, shedding light on the attitudes and behaviours of respondents.

One notable finding of the study was the presence of respondents who express a high level of dislike for digital platforms. This negative perception can potentially hinder their intention to use these platforms, resulting in lower actual usage behaviour. It highlighted the importance of addressing negative attitudes and addressing concerns to encourage active engagement and adoption among individuals who hold unfavourable views towards digital platforms.

The study showed that the respondents perceive digital platforms as affordable and believe in the potential cost savings associated with their utilisation. This positive perception of the financial aspects indicates an understanding of the economic benefits offered by digital platforms. Such beliefs positively influence intention and increase the likelihood of actual usage behaviour. The recognition of value for money further reinforces the intention to use digital platforms, leading to higher levels of actual engagement.

The study also reveals a high level of habit formation among respondents, with a strong agreement that digital platforms are an integral part of their daily lives. This finding suggested that individuals have seamlessly integrated digital platforms into their routines and engage with them regularly. Strong habit formation implies that intention translates into actual behaviour, as individuals habitually interact with digital platforms, fostering continued usage and active engagement.

While the study does not explicitly indicate a high level of agreement regarding addiction to digital platforms, there is a suggestion that some respondents perceive

themselves as being addicted. This perception of addiction can have both positive and negative effects on intention and actual usage behaviour. Individuals who perceive themselves as addicted may exhibit higher levels of intention and frequent engagement with digital platforms. However, it is essential to maintain a balanced approach to avoid excessive reliance, reduced control, and potential negative impacts on well-being.

Furthermore, demographic information such as age, gender, and level of study provides additional insights into the relationship between intention and actual usage behaviour. Analysing this information alongside respondents' perspectives on digital platforms reveals how these factors influence attitudes, behaviours, and perceptions. Younger individuals, for example, may demonstrate higher intention and greater actual usage behaviour due to their familiarity and comfort with digital technologies.

6.4. Limitations

The study on the adoption of digital platforms for student services at the University of the Witwatersrand provides valuable insights, but it also has certain limitations that should be acknowledged:

- The targeted population for this study consisted exclusively of registered students at Wits University, encompassing individuals of all ages and genders. It is essential that participants possessed internet access and were acquainted with popular platforms such as Airbnb, Uber, Google Maps, Facebook, TikTok, Instagram, WhatsApp, and YouTube. As the survey was conducted online, it is important to acknowledge that the information provided by participants was not verified directly by the researcher, and not all participants furnished entirely accurate responses. Additionally, the researcher encountered challenges in determining the appropriate sample size, and the data collected from the obtained sample size may prove to be insufficient for drawing conclusive results.
- The study focuses specifically on the University of the Witwatersrand, which may have unique characteristics and institutional contexts that differentiate it from other universities or educational institutions. The findings may be influenced by specific institutional policies, resources, and student

demographics, making it necessary to exercise caution when generalising the results to other contexts.

- The study relies on self-reported data, which may be subject to biases and inaccuracies. Respondents' perceptions of their own usage behaviour, attitudes, and addiction to digital platforms may not always align with their actual behaviours. Social desirability bias or memory recall issues could impact the reliability of the data.
- While there is a suggestion of some respondents perceive themselves as addicted to digital platforms, the study does not delve deeply into this aspect. Further research would be needed to thoroughly investigate the nature and implications of addiction to digital platforms among students.
- The study mainly focuses on perceived usefulness, affordability, value for money, habit formation, and addiction. Other potentially influential factors, such as technical skills, accessibility, privacy concerns, and institutional support, are not extensively addressed. These additional factors could provide a more comprehensive understanding of the adoption and usage of digital platforms for student services.

6.5. Recommendations

6.5.1 Emphasise cost savings and affordability

Since respondents generally perceive digital platforms as affordable and recognize the potential for cost savings, it is important to highlight these financial benefits. The university should proactively communicate the economic advantages of using digital platforms for student services, such as reduced printing and administrative costs. This can be done through awareness campaigns, providing clear information about cost savings, and illustrating real-life examples of how digital platforms contribute to financial efficiency. By reinforcing the positive perception of affordability, the university can further encourage students' intention to use digital platforms.

6.5.2 Address negative perceptions

Given the presence of respondents expressing a high level of dislike for digital platforms, it is crucial to address their concerns and negative attitudes. The university should actively engage with these individuals to understand their specific reasons for dislike and work towards addressing them. This can be done through targeted communication campaigns, workshops, and user feedback sessions to demonstrate the benefits and value of digital platforms for student services. By addressing negative perceptions, the university can promote a more favourable environment for the adoption and acceptance of digital platforms.

6.5.3 Tailor strategies to demographic groups

Considering the influence of demographics on attitudes and behaviours towards digital platforms, the university should develop targeted strategies and tailored approaches. Analysing the interplay between age, gender, level of study, and perspectives on digital platforms can provide valuable insights. The university can use this information to customise communication, training, and support initiatives to cater to the specific needs and preferences of different demographic groups. By addressing the unique challenges and considerations of each group, the effectiveness of student services can be enhanced.

6.6. Suggestions for further studies

Based on the study findings, further studies need to be conducted for several reasons.

- Firstly, the adoption of digital platforms for student services is an ongoing process, and new technologies and platforms are constantly emerging. It is essential to stay updated and conduct research to understand the evolving landscape and identify the most effective platforms and strategies for student engagement.
- Secondly, while previous studies have provided valuable insights, they may not capture the full complexity of student perspectives and behaviours towards digital platforms. Conducting further studies allows for a deeper exploration of

these factors, considering additional variables, and gaining a more nuanced understanding of the underlying dynamics.

- Thirdly, demographic factors play a significant role in shaping attitudes, behaviours, and perceptions towards digital platforms. Further studies can delve into the specific demographics of the student population, such as age, gender, and level of study, to uncover specific patterns and preferences within these groups. This information can inform targeted strategies and interventions that cater to the diverse needs and preferences of different student cohorts. Moreover, technology is constantly evolving, and new challenges and opportunities may arise. By conducting further studies, researchers can identify emerging trends, potential barriers, and areas for improvement. This knowledge can guide the development of innovative solutions and ensure that student services keep pace with technological advancements.
- Lastly, further studies can provide empirical evidence to support decision-making and resource allocation. By gathering robust data and conducting rigorous analysis, institutions can make informed choices about investing in digital platforms, allocating resources effectively, and designing evidence-based interventions to enhance student experiences.

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APPENDIX A – Research Instrument

Please indicate your Gender	Male	Female	Transgender	Prefer not to respond
Please indicate your Age	Less than 20 years	20-24 years	More than 25 years	
Level of study	UG		PG	

Kindly rate the following statements using a 1 to 7 scale where "1" = very strongly disagree, "2"= strongly disagree, "3" = disagree, "4" = neutral, "5" = agree, "6"= strongly agree and "7"= very strongly agree.

Behavioural Intention							
I use digital platforms in my life or my study life	1	2	3	4	5	6	7
I intend to continue using digital platforms in my life or my study life	1	2	3	4	5	6	7
I have interest in using digital platforms more frequently in the future	1	2	3	4	5	6	7
It is worth recommending digital platforms to other students.	1	2	3	4	5	6	7
Performance expectancy							
I find digital platforms efficient to use for my studies.	1	2	3	4	5	6	7
Using digital platforms will enable me to complete class activities more quickly.	1	2	3	4	5	6	7
Using digital platforms can increase the effectiveness of my academic performance.	1	2	3	4	5	6	7
Digital platforms will increase my chances of getting higher grades.	1	2	3	4	5	6	7
Effort expectancy							
I find digital platforms easy to use	1	2	3	4	5	6	7
Interaction with digital platforms is clear and understandable	1	2	3	4	5	6	7
It is easy to be skilful at using digital platforms.	1	2	3	4	5	6	7
Learning how to use digital platforms is easy for me	1	2	3	4	5	6	7
Social influence							
Having digital platforms is a status for my institution.	1	2	3	4	5	6	7
The university has been helpful in the use of digital platforms.	1	2	3	4	5	6	7
Friends and family encourage me to use digital platforms.	1	2	3	4	5	6	7
Using digital platforms enhances my position as a student.	1	2	3	4	5	6	7
Facilitating conditions							
I have the resources required to access and use digital platforms.	1	2	3	4	5	6	7
I have the knowledge required to use digital platforms.	1	2	3	4	5	6	7
I think that digital platforms will fit well in higher education.	1	2	3	4	5	6	7
The ICT support department in the university helps me when I face difficulties digital platform.	1	2	3	4	5	6	7

Hedonic motivation							
Using digital platforms is fun	1	2	3	4	5	6	7
Using digital platforms is entertaining	1	2	3	4	5	6	7
Using digital platforms is enjoyable	1	2	3	4	5	6	7
I hate digital platforms	1	2	3	4	5	6	7
Price value							
Digital platforms are not expensive	1	2	3	4	5	6	7
I can save money using digital platforms	1	2	3	4	5	6	7
Digital platforms are good value for money	1	2	3	4	5	6	7
Habit							
Using digital platforms has become a habit for me.	1	2	3	4	5	6	7
Using digital platforms is part of my daily life.	1	2	3	4	5	6	7
I am addicted to digital platforms.	1	2	3	4	5	6	7
Use of Platforms							
I use digital platforms daily	1	2	3	4	5	6	7
I find using digital platforms makes it easier to do my studies	1	2	3	4	5	6	7
Digital platforms are useful for my studies	1	2	3	4	5	6	7

APPENDIX B – Participation Information Sheet

My name is Katlego Khoetha and I am a Masters of Management student in the field of Digital Business at Wits Business School in Johannesburg. As a requirement for my academic studies, I need to take on a research project. My research project is about The adoption of digital platforms for student services at the University of the Witwatersrand.

Therefore, you are invited to take part in the above-mentioned research project by answering a semi-structured questionnaire. Your participation in this study is purely voluntary. All the information gathered from this questionnaire will be used purely for this research project.

There will be no need to identify individuals who complete this questionnaire. Participation in this stud is anonymous and all data collected will be handled confidentially and will be used for research purpose only. Therefore, by participating in this research you are required to consent. The participation consent form will be kept strictly confidential and will be destroyed upon completion of the research project. There is no cost or incentives given to participants. This evaluation is subjective so there is no wrong or right answer.

Your participation involves no risk, no disadvantages, or penalties and if you decide to withdraw from the study at any stage or chose to answer questions that make you feel uncomfortable, you may do so at any time.

If you have any further questions or concerns, you are welcome to contact me or my supervisor.

Thank you for your time.

Yours sincerely
Researcher: Katlego Khoetha
Katlego.khoetha@wits.ac.za

Supervisor: Dr Ayanda Magida
Ayanda.magida@wits.ac.za

APPENDIX C – Ethical Clearance Certificate

Graduate School of Business Administration
University of the Witwatersrand, Johannesburg

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

Ethics Clearance Certificate

Ethics protocol number: WBS/DB49802/754

This certificate is only valid with a legitimate ethics protocol number and signed by the Researcher (below).

This certificate is only valid if accompanied by formal permission from the relevant stakeholder(s).

Project title	The adoption of digital platforms for student services at the University of the Witwatersrand
Investigator / Researcher	Mr Katlego Khoetha
Nature of Project	MM (Digital Business)
Decision of the Committee	Approved, provided stakeholders and participants are guaranteed anonymity and confidentiality.
Issue Date of Certificate	2023-02-06
Expiry date	Date of submission of the project / research report
Chairperson	Dr Pius Oba ☎ +27 11 717 3976 +27 82 733 6587 pius.oba@wits.ac.za

Declaration by Researcher

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

I fully understand the conditions under which I am authorized to carry out the abovementioned research and I guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I undertake to resubmit the protocol to the Committee.

Signature

13/03/2023
Date:

APPENDIX D - Consent Form

Thank you for partaking in this research project, your participation is very important.

This research project is being conducted by Katlego Khoetha. The research project is about the adoption of digital platforms for student services at the University of the Witwatersrand.

All information gathered will be used only for my research and will be kept confidential. Once the study is completed, I would be happy to share the results with you, if you desire.

The research project has been explained to me and I understand what my role as a participant will involve.
(Kindly tick the relevant options below)

I agree that my participation will remain anonymous ☐

I agree that my participation is voluntary ☐

I agree that the information I provide may be used for this research. ☐

Name of Participant:

Date:

Signature:
_____

APPENDIX E – Permission approval letter

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

OFFICE OF THE DEPUTY REGISTRAR

23 March 2023

Katlego Khoetha
Student Number (49802)
Master of Management
Wits Business School

TO WHOM IT MAY CONCERN

"The adoption of digital platforms for student services at the University of the Witwatersrand."

This letter serves to confirm that the above project has received permission to be conducted on University premises, and/or involving staff and/or students of the University as research participants. In undertaking this research, you agree to abide by all University regulations for conducting research on campus and to respect participants' rights to withdraw from participation at any time.

If you are conducting research on certain student cohorts, year groups or courses within specific Schools and within the teaching term, permission must be sought from Heads of School or individual academics.

Ethical clearance has been obtained. (Protocol number: WBS/DB49802/754)

Research Expiration: (Research submission date)

Potgieter

Nicoleen Potgieter
University Deputy Registrar