The perceived impact of video-on-demand services adoption on subscription TV services in South Africa

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

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DECLARATION

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

Name: **Fanna Njomo** Signature: 

Signed at: **Olifantsfontein, Ekurhuleni**

On this **24th** day of **February 2022.**

DEDICATION

I dedicate this report to the Njomo family, especially my late mother, my wife and my sister, Pinky Ntobeng. You sacrificed everything for me to get an education throughout my university life. Education was always the topic of discussion in our family. You always saw the best in me, encouraging me to be the best in everything I do.

ACKNOWLEDGEMENTS

A special thanks to all the individuals who sacrificed their time and efforts to contribute to a challenging journey to reach the end of this research report.

To my supervisor, Dr Fanny Saruchera: I cannot thank you enough for being there for me from the beginning to the end. There were moments when I did not see the light and wanted to give up. You were always there, encouraging and motivating me to take one step at a time. I have learnt so much from you, not only from the research report but about life in general. I cannot say thank you enough.

To my family, my wife Mmadira, my sons Sihle and Simphiwe: thank you for the support you have given me through this journey. Without your support and sacrifice for missing family gatherings and holidays, I would not have completed this journey.

To my syndicate group: you were always there from the first day at Wits, where we signed our agreement to ensure we all succeeded. I gained friends for life.

To all my Wits Lecturers: it has been tough through COVID-19; we started the journey in person and went into an unknown of remote learning, there were challenges, but we conquered.

Thank you.

ABSTRACT

Digital disruption in the media and entertainment industry has changed how subscribers acquire, distribute, and consume content. Technological innovation facilitated the evolution of television to the introduction of services that compete for viewership from the same subscriber base. The main aim of this study was to establish the impact of the introduction of video-on-demand services on the subscriber base of traditional subscription TV services that previously had a monopoly in South Africa. Following the study's objectives, theoretical constructs were derived from literature to understand subscribers' expectations and competitiveness of both services, the technological innovations driving both services, how satisfied are subscribers with each service as they choose their preferred service. The study used a cross-sectional quantitative method, and primary data were collected using a self-administered questionnaire from 233 subscribers who have an active media and entertainment subscription. The study found that video-on-demand services are adopting disruptive technologies that are changing subscriber content watching behaviour, subscribers are technologically savvy and adapting to digital transformation in the industry and use devices that were not used to consume content and introduced additional screens and not limited by linear scheduling. The study's findings showed that subscribers are cord-cutting and cord-shaving while others are cord-nevers as they never subscribe to traditional subscription services. Therefore, the new video-on-demand (VOD) services negatively impacted the traditional subscription TV service subscriber base. Traditional subscription TV services must implement innovations in broadcasting to be competitive and retain some of their subscribers as they acquire new subscribers.

KEYWORDS: *Video-on-demand (VOD), subscription TV, perceived impact, Adoption, South Africa.*

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4IR	Fourth Industrial Revolution
ADSL	Asymmetric Digital Subscriber Line
ARPU	Average Revenue per User
AVOD	Advertising-based Video-on-Demand
CLV	Customer Lifetime Value
IBM	International Business Machines Corporation
LTE	Long-Term Evolution
OTT	Over-The-Top
PC	Personal Computer
POPIA	Protection of Personal Information Act
SABC	South African Broadcasting Corporation
SPSS	Statistical Package for Social Sciences
SVOD	Subscription Video-on-Demand
TV	Television
TVOD	Transactional Video-on-Demand
VOD	Video-on-Demand

CHAPTER 1. INTRODUCTION

1.1 Purpose of the Study

Digital disruption in the Fourth Industrial Revolution (4IR) is reshaping or displacing traditional businesses in various ways. New players in the media and entertainment business are using technology to interact with subscribers and changing the way content is consumed (Tefertiller & Sheehan, 2019). Tefertiller and Sheehan (2019) further note that content consumption is increasingly changing, allowing subscribers to use multiple devices at different locations and increasing choice selection.

The phrase “disruptive technology” was first used by Bower and Christensen (1995) to describe the latest available technology comparing it with existing technology primarily that is used to address part of the market that was not intended to be targeted by existing technology as it can be experienced in the shift to on-demand content consumption. Digital disruption is changing the media and entertainment landscape as described in the digital vortex, which tracks industries' vulnerabilities to digital disruption; in 2019, it ranks “media and entertainment” at the centre of disruption (Yokoi, Shan, Wade & Macaulay, 2019). This disruption is changing subscribers’ behaviour, increasing online video and entertainment content (Pradsmadji & Irwansyah, 2020).

Video-on-demand (VOD) service providers are increasing investments and creating new and original content for subscribers, which further disrupts the traditional broadcasting businesses which rely on repackaging content into existing channels (Kim, Kim, Hwang, Kim & Kim, 2017). With new technology introduced by new media industry players, content distribution to existing subscribers is changing consistently (Doyle, 2016).

The purpose of this study was to explore the effects of digital disruption in the media and entertainment industry, analysing the perceived impact of subscribers switching from traditional broadcasting services to video-on-demand services.

The study also intended to investigate subscribers' technological expectations and benefits from traditional broadcasting organisations' retention strategies through business reinvention.

1.2 Background and Context of the Study

The fourth industrial revolution has presented opportunities that organisations can exploit, thereby reducing the barriers to entry while ensuring that new services and products can be introduced where they were previously disadvantageous and costly (Akyildiz, 2019). Growth in the media and entertainment industries has seen new organisations providing video-on-demand services with a high potential of threatening the subscription base of traditional subscription TV services organisations (Duhamel, 2021).

Video-on-demand streaming services have been launched globally for many years before. However, the dominance of traditional broadcasting and low technology accessibility and adoption made it not viable in South Africa. Recently, the increase in adoption of disruptive technology and access to the internet in South Africa, especially among the tech-savvy millennials "born between the early 1980s and the late 1990", made it viable to introduce streaming services (Mybroadband, 2017).

As displayed in the Network Readiness index - NRI (2020), digital infrastructure readiness places South Africa at 76 in 134 surveyed countries globally, looking at the pillars of technology, people, governance and impact. This shows that while the cost of mobile data is still high, there is an increase in access to mobile devices, access to the latest technologies, an increase in active mobile broadband subscriptions, an increase in online business tools that make it easier for the adoption of online video-on-demand streaming services (Chen, 2017).

Changes in the global media and entertainment industry require service providers to change the way they position themselves to thrive and compete as they focus on subscribers' needs and experiences, adopting digital strategies. At the same

time, they reposition their business models to compete for existing subscribers using new digital platforms (Bonnet & Westerman, 2021).

Africa has experienced an increase in the number of mobile devices per person, used as the basic method for communication and entertainment through internet access. Internet penetration in South Africa is slowly increasing and accessible to most of the population, changing the way television content is consumed with the advancement of video-on-demand (Mybroadband, 2017). The growth in video-on-demand is changing subscriber expectations and viewing experiences, leading to how the major broadcaster such as DStv, SABC and e-TV are engaging their subscribers.

Traditionally, South Africa has relied on traditional broadcasting to distribute content to subscribers utilising a TV set. The landscape consists of analogue and digital services with free-to-air services such as SABC and e-TV and the pay satellite subscription-based service such as DStv providing pre-programmed channels (DStv, 2021).

The introduction of video-on-demand emerged in 2010 when DStv launched “DStv Catchup” to watch missed broadcast content for a limited time (Multichoice, 2021b). The increase in competition and the imminent launch of Netflix in South Africa resulted in the launch of the video-on-demand streaming service “Showmax” from Multichoice, with Netflix launched the following year (Businesstech, 2015).

Video-on-demand services continue to compete for subscribers. Both Showmax and Netflix are the dominant service providers, with smaller streaming service providers launching, seeking to grow their market share and impact the traditional subscription TV services subscriber base (Ferreira, 2020). The video-on-demand streaming services bring new experiences to the consumption of content in South Africa, allowing subscribers to control what they watch and when they watch it through new business models (Tefertiller & Sheehan, 2019).

The COVID-19 global pandemic has impacted both the video-on-demand and TV subscription services due to delays in new content production; however, video-

on-demand services granted their subscribers access to a large catalogue of unrestricted content, especially during the lockdown periods while traditional broadcasting services were negatively impacted as they relied on pre-programmed schedules and live sporting events finding it difficult to fill shows slots and ultimately driving their subscribers base down (USAToday, 2021).

The adoption of video-on-demand in South Africa is perceivably related to the traditional subscription TV subscriber base changes. However, the impacting factors have not been thoroughly assessed and investigated. The framework has been developed to assess the impacting factors.

1.3 Research Problem

The media and entertainment industry has been transforming the way content is broadcast and delivered to subscribers and this has increasingly been driven by increased internet access, new devices, big data analytics and new platform businesses that cater to the needs of technologically advanced subscribers, disrupting the traditional subscription TV business (van Eeden & Chow, 2018)

While the definition of television has not changed in decades, television consumption has changed as content is beginning to be consumed in different ways using new devices and technologies. The new broadcasting model requires new business strategies that incorporate telecom companies, content production companies, content aggregators and broadcasting companies (van den Broeck, Pierson & Lievens, 2008).

In South Africa, free-to-air and subscription TV are the primary method for subscribers to access content through bundled channels. A subscriber may only consume a limited number of channels, such as a specific genre or a specific time. The trend in the TV industry has slowly seen subscribers switching away from traditional subscription services to the video-on-demand subscription where they can watch only the programs they want to watch when they want to watch them.

While they still watch the television using traditional subscription TV, the millennials are digitally savvy. They are re-evaluating their obligations and current subscriptions and considering cutting their services as they have access to devices that already deliver video-on-demand. “Generation Z”, “born in the late 1990s or the early 21st century”, grew up in an era of connectivity, having smart devices as their main mode of communication and not connecting to traditional subscription TV services, leading to a decline in the subscriber base (Kasasa, 2021; Ordun, 2015).

The reasons for subscribers switching from traditional subscription TV services to video-on-demand services have not been fully explored. They remain misunderstood, including the changes implemented in traditional subscription TV businesses to retain subscribers. This study thus focused its investigation on the factors that influenced subscribers to switch while some were retained.

1.4 Research Objectives

The main objective of this study was to understand whether the introduction of video-on-demand services negatively impacted the subscriber base of subscription TV services in South Africa. The study addressed the objectives listed below:

1. Identify reasons for subscribers switching from traditional subscriptions TV services to video-on-demand services.
2. Identify key competitive trends and innovations driving the adoption of video-on-demand services.
3. Identify digital transformation and innovations implemented by the traditional subscription TV services to enhance their services.
4. Evaluate the impact of subscriber switching on the subscription base of traditional subscription TV services.
5. Evaluate the effectiveness of retention strategies against the perceived benefits of video-on-demand.

1.5 Significance of the Study

The introduction of video-on-demand services gives subscribers options and reasons to switch how they consume content. This is driven by advancements in technology and integration to devices the subscribers already have, such as smart TVs, smartphones, access to fast internet, lower cost and ease of access (Christenson, 2017).

Video-on-demand services introduce a new subscriber behaviour of binge-watching, changing how content has traditionally been broadcast and transmitted, leading to new subscriber requirements and satisfaction that current business models may not achieve (Flayelle, Maurage & Billieux, 2017).

Traditional subscription TV increases the number of accessible channels while available video-on-demand services increase and provide alternative media, introducing complexities in satisfying subscriber preferences and needs (Christenson, 2017).

The introduction of video-on-demand services in South Africa has raised questions on what impact it will have on traditional subscription TV, whether the new technology will be a replacement or a compliment, and what investments and process digitisation are required to improve subscriber satisfaction (Chen, 2017; Nielsen, 2016).

COVID-19 pandemic has also created a shift for subscribers to migrate to video-on-demand where traditional subscription TV services are creating retention strategies to keep their subscribers through increased engagements, implementation of innovative products and services to increase quality for those who are willing to continue as subscribers (Gupta & Singharia, 2021).

The study investigated why subscribers are switching from traditional subscription TV as they adopt new technology daily and how it has impacted the traditional broadcasting businesses. With broadcast and media technologies changes, the research sought to assist traditional broadcasting organisations in

developing new business strategies aligned with the subscriber needs to compete and retain their subscribers.

1.6 Delimitations of the Study

There were factors and variables identified that were not included in this study to narrow the scope of the research (Creswell & Creswell, 2017). The study focused on the delivery of video content in South Africa in the following context:

i. Traditional subscription TV services
ii. Subscription video-on-demand (SVOD) services
iii. Subscribers who have switched to subscription video-on-demand
iv. Subscribers who have exclusively used subscription video-on-demand

The study excluded the following:

i. Transactional video-on-demand (TVOD)
ii. Advertising-based video-on-demand (AVOD)
iii. Free-To-Air TV services
iv. Illegal content sharing and piracy.

1.7 Definition of Terms

Subscriber – a person who receives and pays for a product or service, such as accessing content from a service provider through broadcasting or streaming services.

Subscriber switching – referred to as subscriber churn, it is the action or process where the subscriber discontinues using the services of a specific service provider.

TV subscription service is also referred to as “Pay-TV” using broadcasting technology, delivering pre-programmed channels or a bundle of channels to a subscriber through an agreement to pay a recurring monthly subscription fee.

Video-on-Demand subscription – a service that grants its subscribers unlimited access to the content, accessed using multiple devices not imitated by a broadcasting schedule through an agreement to pay a recurring monthly subscription fee.

1.8 Assumptions

The study made the following assumptions:

i. It is assumed that the sample size will provide the population representation providing balanced results.
ii. It is assumed that subscribers' responses will be honest and precise to all provided questions.
iii. It is assumed that the respondents are the decision-makers in selecting the services consumed.

1.9 Chapter Outline

The chapter layout used in the study is summarised below:

Chapter one provides the introduction to the study. Formulated to provide the purpose, the context, the research problem, the research objectives, the significance and delimitations of the study.

Chapter two goes through the available academic literature to expand on the research problem driven by the study's objectives. Literature from other authors will be reviewed and further expand on the research problem to achieve possible hypotheses of the study.

Chapter three goes through the methodology used in the study defining the tools and techniques to collect, store and analyse collected data. The chapter further details the study research instrument and the sample size.

Chapter four presents the results of the study and testing hypotheses from previous chapters. The characteristics of both the respondents and their

households are presented from data collected from the study sample. The data is tested for reliability and validity. The results from both correlation and regression analysis are also presented.

Chapter five discusses the findings of the study using hypotheses developed from the study's theoretical framework and literature

Chapter six provides a conclusion for research objectives, recommendations, suggestion for future research and conclude the study.

CHAPTER 2. LITERATURE REVIEW

2.1 Introduction

Chapter 1 introduces the study's purpose, context, problem, and significance. The background information on video-on-demand was presented, highlighting the perceived impact subscription video-on-demand has on traditional subscription TV services.

This chapter reviews available literature published by other authors to understand how subscribers access and engage media from different services daily. It further investigates the differences and individual preferences as they engage with services from traditional subscription TV compared to video-on-demand subscriptions.

2.2 Literature Review Scope

Figure 2-1 below represents the topics that constitute the scope of the literature that was used within the study.

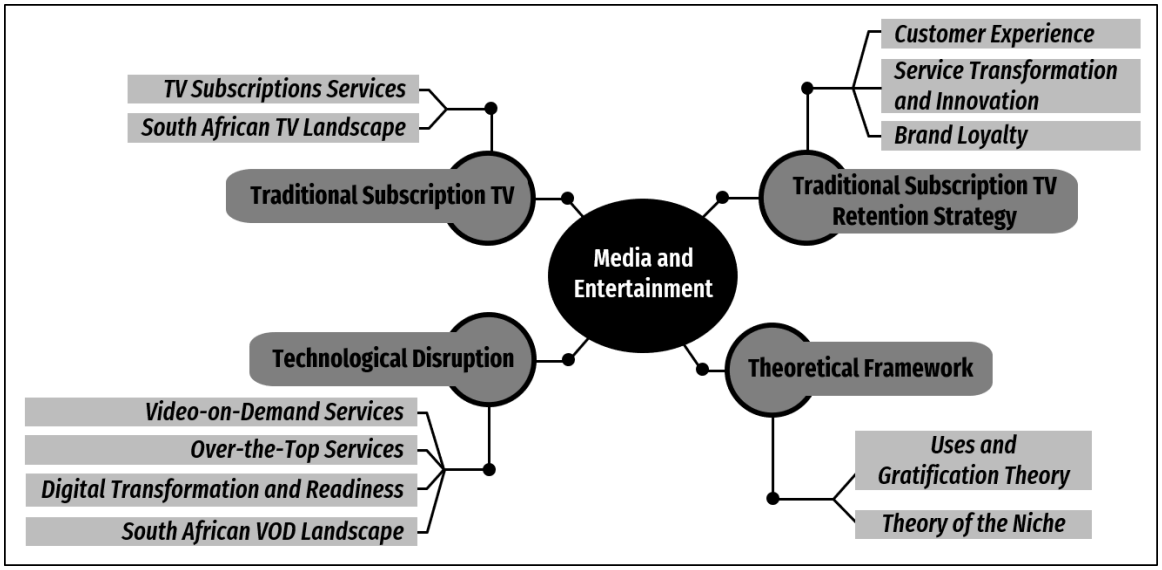


Figure 2-1 - Literature Review Scope

Source: Author's construct (2021)

Academic literature was used to address the changes in how subscribers engaged with media and understand their satisfaction and preferences. Traditional subscription TV was explored, understating its history and how it is utilised by businesses to serve its subscribers, including the South African environment.

The technological disruptions were investigated as they formulated the video-on-demand and over-the-top services and how organisations exploit them to transform and change traditional subscription processes. The streaming services organisation's success is dependent on their business and the country to digitally transform and be ready to adopt the technology.

Both the traditional subscription TV and video-on-demand organisations need to understand what experience is required by subscribers to transform and innovate products and services as they implement retention strategies to better customer experience to either attract or keep existing subscribers, increasing subscriber loyalty.

The “uses and gratification theory” and “theory of the niche” were used as theoretical frameworks for the study to better understand how subscribers seek and prefer specific media and services to satisfy their needs and how niche organisations co-exist and compete for existing resources such as subscribers (Dimmick & Rothenbuhler, 1984; Pittman & Sheehan, 2015).

2.3 Traditional Subscription TV

The television industry was initially used as a way of mass communication to its viewers after the domination of the print industry. This was achieved by broadcasting media from a central location, and viewers received it through a television set in their homes. Broadcasting is seen as a process that is unidirectional where media is packaged and organised in a specific order with the viewer having no input on how it is packaged, the programming line-up or the time that the content is presented (Abreu, Nogueira, Becker & Cardoso, 2016; Crisell, 2005).

Traditional television broadcasting utilises linear broadcasting that provides content using a pre-determined schedule. The broadcaster creates and publishes a schedule to deliver content to subscribers generating additional revenue by selling pre-determined advertisement slots. (Cha, 2013). The broadcasting process remained unchanged for decades with the broadcasters purchasing content from content producers or creating their content and packaging it in either the broadcaster branded channel or third-party channel and broadcasting through different transmission technologies such as analogue and digital radio waves, satellite or cable (Baccarne, Evens & Schuurman, 2013; Mulyana, 2019).

Most households own a television set as a primary device to receive media and entertainment in their homes (Abreu et al., 2016). The traditional television industry utilises channels broadcasted to allow viewers to consume content. Prospective subscribers access traditional subscription TV services through grouped channels. Each channel is programmed with linear content, allowing subscribers to select the specific channel they consume (Doyle, 2016).

A pay-tv subscription also refers to a television service where the viewer is referred to as a subscriber where they are required to pay a subscription fee to gain access to the content. The subscribers enter into a subscription contract with the providers and receive content grouped by channels to form different bouquets ranging from the most expensive, premium content to the cheapest, which only provides the basic. The contract term may be monthly or annually and paid in advance to receive the content (Arul & Shoufan, 2016; Mulyana, 2019).

Linear TV programming often promotes a common experience where all subscribers receive content while building a common social connection and conversation (Nathan, Harrison, Yarosh, Terveen, Stead & Amento, 2008). Nathan et al. (2008) further add that TV has brought families together as they gather to watch their favourite programs together. However, this is fast-changing due to changes in how media is consumed.

Subscribers of traditional TV broadcasting are offered the ability to view content from linear programming later as part of video-on-demand. The content is

normally recorded and stored after a regular broadcast; the on-demand content is available only for a limited time. The process is called “time-shifting”; content can be stored on the local subscriber device to avoid streaming costs and is limited by the amount of available disk space (Abreu et al., 2016).

Traditional subscription TV services must adhere to broadcasting regulations enforced through policies and legislation in the country they operate. According to ICASA (1999), the broadcasting act requires that broadcasting organisations in South Africa contribute to the development of the industry and society through investment in content generation, fair and efficient use of broadcasting resources, and others which adds to the cost of broadcasting.

Subscriber behaviour and interest are continually changing. Technology is also evolving; therefore, traditional linear TV subscriptions must implement multiplatform strategies to distribute content while satisfying subscribers' needs (Doyle, 2016). Baccarne et al. (2013) add that traditional TV broadcasting is no longer limited to the living room and a TV set. Broadcasting is becoming more digital and migrated to online platforms that allow it to be accessed on a smart device from any location.

2.3.1 *Traditional Subscription TV in South Africa*

Broadcasting television services were introduced in South Africa in 1975 by the state-controlled broadcaster the South African Broadcasting Corporation (SABC), with one channel and more channels added later. The initial TV broadcasting service did not use a subscription-based funding model. It required funding by introducing a TV license for those with a TV set and later introducing an advertising-based funding model (SABC, 2021).

The subscription TV industry in South Africa was introduced in 1985 by M-Net as part of the Naspers group of companies. Naspers went further to launch DStv in 1995 under the newly created company Multichoice as the first subscription satellite service in Africa and expanded its services to other African countries.

Over the years, Multichoice has been a single and largest satellite subscription TV provider, with over 8.9 million active subscribers in 2021 (Multichoice, 2021b).

To increase competition within the pay-tv subscription industry, ICASA granted an operator's license to On Digital Media (ODM) to launch "Top TV", introducing a second TV subscription service in South Africa (Muller, 2010). StarTimes Media acquired top TV in 2013 to create StarSat and continue providing satellite TV subscription services. (StarSat, 2021). OpenView launched its free-to-air subscription service in 2013 to complement "e.tv" services and provide high-quality satellite TV services for free to potential subscribers (Openview, 2021).

A summary of traditional broadcasting services provided to viewers and subscribers is listed in Figure 2-2 below:

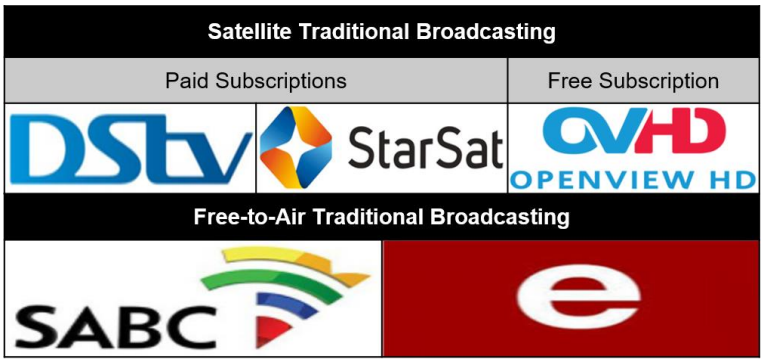


Figure 2-2 - Traditional Broadcasting Services in South Africa

Source: Author's compilation (2021)

2.4 Technological Disruptions in Media and Entrainment

Digital disruption is advancing fast, impacting all industries lead by the speed at which technologies are changing. The disruption means that non-traditional organisations can enter different sectors that they did not previously compete in, such as media and entertainment, banking, retail and others, changing traditional operating models which operated for years before. Technology enables existing organisations to diversify their products and services, entering different sectors

and disrupting existing business structures (Bower & Christensen, 1995; Yokoi et al., 2019).

Disruption is also experienced at increased speeds where individual behaviour and expectations change. Technology as a driver for disruption makes information and knowledge available to individuals who never had access to it before, allowing them to have more power to inform and decide on what products and services they will ultimately consume (Pradsmadji & Irwansyah, 2020; van Eeden & Chow, 2018).

Technological disruption is challenging business as usual in all sectors, and organisations must do more than deliver services in the fourth industrial revolution (Akyildiz, 2019; Tefertiller & Sheehan, 2019). Disruption is brought on by technology's exponential changes requiring organisations to increase their efforts in digital transformation and discover new opportunities to remain competitive to maintain and attract their customers (Tayibnapis, Wuryaningsih & Gora, 2019).

Digital transformation enables an organisation to have a future look into technology rather than what is available now and transform their business models to respond to change at the precise time (Al-Ruithe, Benkhelifa & Hameed, 2018). Digital transformation requires transforming not only single systems but also complete business transformation and building new ecosystems as they embrace technology (Bonnet & Westerman, 2021).

Technology disruption in media and entertainment drives the convergence between television and the internet to deliver content to the consumer. Media and entertainment are changing from delivering content to a large audience to having personalised and direct to the individual viewer, driving flexibility and accessibility to meet the viewer’s needs (Chen, 2017; Doyle, 2016).

Yokoi et al. (2019) investigated digital disruption in different industries, how each industry is disrupted as they move to the centre of the digital vortex and how traditional organisations must respond to the disruption. In 2019, “Media and entertainment” was placed at the centre of the vortex, as shown in Figure 2-3, the

most vulnerable due to changing subscriber behaviour and how content is consumed through streaming technologies.

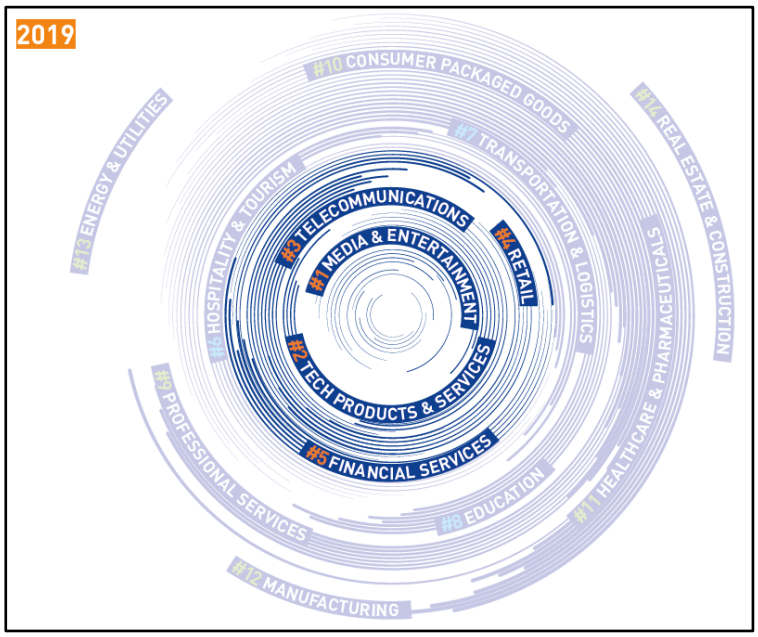


Figure 2-3 - The Digital Vortex

Source: Yokoi et al. (2019)

Technological disruption has allowed organisations predominately not in broadcasting to deliver content in new ways and disrupt traditional TV broadcasting and subscription services (Godinho de Matos & Ferreira, 2020). The increased use of computers, mobile devices and smart connected TVs by a new generation of users further changes how traditional broadcast services are received (Kim et al., 2017).

The future of media and entertainment is changing by implementing technology impacting television. Media are produced, packaged and consumed, changing viewer behaviour from being used to relax and “switch-off” to being informed, entertained and “switched on” and on the move compared to watching from the same place, from receiving only what is being broadcast to being in control and able to interact using multiple fragmented views (Matrix, 2014; Park & Kwon, 2019).

The next generation of technology innovation introduces different ways of consuming streaming and on-demand content aligning with viewers' needs, as shown in Figure 2-4, discussed further in the study (Ruether, 2021).

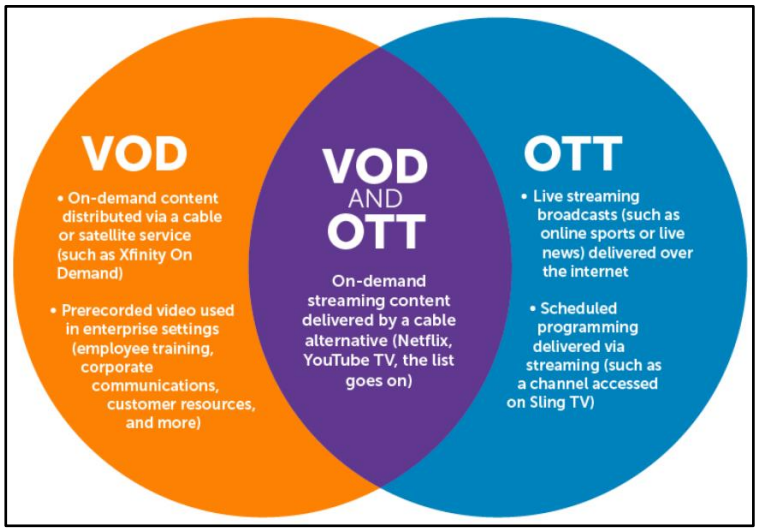


Figure 2-4 - Video-on-Demand and Over-The-Top Streaming

Source: Ruether (2021)

2.4.1 *Video-on-Demand Subscriptions*

Video-on-demand is depicted as a service that subscribers select the content they are interested in watching when they want to watch and is available online. It further adds that the subscribers have full control of the video content as they can start, pause, fast-forward, rewind and watch segments for extended time accessed through multiple devices (Chen, 2017; Sundaravel & Elangovan, 2020).

Subscribers can access video-on-demand in two different delivery ways (Ruether, 2021). The first is supplied by the traditional subscription TV service provider where content is downloaded to the set-top-box after it has been broadcast, allowing the subscriber to consume it at a later stage known as time-shifted viewings, such as “DStv Catchup” where the subscriber does not require an internet connection (Arul & Shoufan, 2016). This content is only available for a short period as it is limited by the available space on the set-top box as the latest content updates. The second is accessible through the internet. The

subscriber has access to a large content catalogue using any device to stream when they are ready to consume or download the content to their device and view it later (Ruether, 2021).

Different types of video-on-demand subscriptions are available to subscribers depending on their interests. The Advertising-based video-on-demand (AVOD) generates revenue through advertising on its platform. The subscribers access it for free while advertisements are added to the selected content, such as YouTube (Collico-Savio, 2013; Sundaravel & Elangovan, 2020). With the transactional-based video-on-demand (TVOD), the subscribers register for free on the platform. They must pay a fee to rent or purchase the content they want to watch, such as "DStv Box Office" movie rental services (Collico-Savio, 2013; Sundaravel & Elangovan, 2020).

The subscription-based video-on-demand (SVOD) requires subscribers to enter into a contract and pay a monthly or yearly subscription fee to access all the content from the service provider, from the oldest to the newly released content. The subscriber can choose their favourite genre or explore new content in services such as Showmax, Netflix and others (Collico-Savio, 2013; Sundaravel & Elangovan, 2020).

The cost of providing video-on-demand is significantly low, allowing the service providers to increase investment in both the content quality and the delivery quality to the subscriber. Subscribers expect exclusive or niche content delivered in their region; this is limited by content rights and regulations within the country the video-on-demand service can stream. The source of subscriber complaints is that some regions may have more content than their counterparts (Batikas, Gomez-Herrera & Martens, 2015; Collico-Savio, 2013).

Video-on-demand service uses disruptive technologies such as big data analytics and artificial intelligence to offer customised individual subscriber experience by ensuring the subscriber has the personalised content delivered and can create personalised playlists and different user profiles. The service further offers easy

to use platforms to ensure that even a basic user will have the best experience (Davis & Zboralska, 2017).

Video-on-demand services introduce a new behaviour of “binge-watching”, as defined by Flayelle et al. (2017), where subscribers watch more than one episode of TV series in a short space of time. Rubenking, Bracken, Sandoval and Rister (2018) noted that binge-watching subscribers are driven by the need to satisfy their needs brought by their anticipation of what the next episode will bring, changes and management of their moods, to escape issues their daily issues or the need for social inclusion as they discuss the latest content. The introduction of binge-watching allows subscribers to watch the entire series content compared to weekly episodes delivered by traditional subscription TV services. The subscriber is always in control of the content they watch, where they want to watch it and for how long they want to watch it. Video-on-demand services allow subscribers to remove advertisements while watching and the ability to skip part of the content they are not interested in (Matrix, 2014).

The video-on-demand services have certain advantages over traditional TV broadcasting as they introduced new platforms enabling it to be competitive and reduce the cost of delivering content to subscribers; however, it is still missing the fundamentals of live television such as news production, live shows and live sporting events (Akyildiz, 2019). From the above views, it can be predicted that media convergence will blur the lines between video-on-demand and broadcasting in the next few years and change the way content is consumed.

2.4.2 *Over-The-Top (OTT) Services*

Video-on-demand services are delivered to the subscribers using over-the-top services that utilise internet streaming compared to the traditional TV broadcasting video-on-demand that use setup boxes provided by the traditional TV broadcaster (Urgelles, 2017).

Over-the-top services provide a low barrier to entry in the media and entertainment industry. The services are not limited to large and traditional TV

broadcasting organisations, with the internet being available to everyone (Jirakasem & Mitomo, 2019). The services are available to smaller service providers, which create and distribute niche content to their subscribers and challenge the dominance of large pay-tv subscriptions.

Park and Kwon (2019) noted the benefits of OTT services as it lowers the cost of distributing content which allows smaller content producers to reach a wider audience, they offer the opportunity to receive real-time feedback (e.g. comments, reviews, ratings, likes, etc.) from viewers which allows for instituting proactive changes in service levels to keep subscribers happy compared to traditional subscription TV.

Traditional subscription TV service providers use over-the-top services as channels are digitised and available through the internet. Traditional TV subscribers can access the same content broadcast through television broadcasting, such as live sports and scheduled programmes, using internet-connected smart devices from different locations (Ruether, 2021).

Traditional broadcasting TV subscription service providers such as DStv in South Africa, HBO in the US and others provide over-the-top streaming services to deliver their traditional products using the internet such as “DStv Now” and “HBO Go” (Kim, Kim & Nam, 2016).

2.4.3 *Digital Transformation and Readiness*

The broadcasting industry evolves through new technologies that affect the entire value chain from content production to subscribers receiving content and paying. Westerman, Bonnet and McAfee (2014) further explain that digital transformation is not about the changing technology rather the streamlining of business processes and people within the organisation. Digital transformation requires an organisation to transform its business model, customer and employee experience, operational processes and finally implement digital platforms (Bonnet & Westerman, 2021).

Digital transformation requires an organisation to evaluate its products and services and implement processes to ensure it remains competitive, bringing sustainable growth (Westerman et al., 2014). Traditional subscription TV services are going through a transformation from what broadcasting has been for many years before to new ways of working and delivering new experiences and products to their subscribers (Davis & Zboralska, 2017).

While technology is not the main driver in digital transformation, it increases digital readiness facilitated by innovation, the introduction of fast mobile broadband, access to smart devices, increased storage capacity, ease of technology use and making it easier for subscribers to adopt video-on-demand services (Abreu et al., 2016; Kim et al., 2017; Pradsmadji & Irwansyah, 2020).

As presented by NRI (2020), the Network Readiness Index provides a country ranking looking at the technology available in the country, the people skills as they use technology, governance of how technology is promoted and its economic and social impact. South Africa in 2020 was rated number 76th out of 134 countries (NRI, 2020).

The survey placed South Africa above the trend-line, in line with the income level, with the expected digital readiness to embrace technology with traditional subscription TV and video-on-demand services able to compete for the technological resources to gain subscribers (NRI, 2020).

2.4.4 *VOD Subscriptions in South Africa*

In South Africa, video-on-demand services were initially launched in 2010 when DStv introduced “DStv Catchup” to allow subscribers to watch content on their set-top-boxes after it was broadcast on the traditional subscription TV service and later expanded to access a larger catalogue through the internet (Multichoice, 2021b).

Subscription video-on-demand service “Showmax” was launched in 2015, allowing subscribers to stream content from their set-top-boxes, web browsers

and apps developed for smart devices and paying a monthly subscription fee (Businesstech, 2015). A few months later, in 2016, an international video-on-demand service “Netflix” was introduced to compete for subscribers by offering subscription video-on-demand granting subscribers access to exclusive international content (Businesstech, 2016), and the introduction of many services including “Apple TV” and “Amazon Prime Video” followed after.

DStv launched its over-the-top service “DStv Now” to allow traditional TV linear subscribers to stream and access existing channels on any device, introducing a change in behaviour where the TV was no longer the main device, with TV channels watched on any device anywhere (Multichoice, 2021b). Showmax was also enhanced to create “Showmax Pro” in 2020 to offer music and news channels and live streaming of sports as an enhancement to its subscription video on demand (Showmax, 2021).

Figure 2-5 below lists the popular video-on-demand and over-the-top streaming services available in South Africa.

Figure 2-5 - South African Streaming Services

Source: Author’s compilation (2021)

2.5 Traditional Subscription TV Retention Strategies

Customer retention strategies are at the centre of traditional subscription TV to increase revenue. Subscribers are presented with many options to switch from traditional subscription TV due to behavioural and technology changes (Jayakody, Samarasinghe & Kuruppu, 2016; Meyer & Muthaly, 2008)

The loyalty of a subscriber is predominately based on the perceived benefits they expect from the service provider, which is both financial and non-financial, as they interact with their services and products (Jayakody et al., 2016). Customer satisfaction is one of the main factors that facilitate a decrease in customers switching to another service provider and increasing customer loyalty (Woisetschläger, Lentz & Evanschitzky, 2011).

2.5.1 *Customer Experience*

Customer experience relates to the organisation's views throughout the customer journey from product discovery to product use. Customer experience is limited to the product or service rendered; it also includes the people who are part of the process as they interact with the customer, delivering a personalised experience (van Eeden & Chow, 2018).

The product's perceived performance will drive customer satisfaction, ensuring continued use of the product as the customer engages with the service provider at every touch, making it easier for the customer to change, pay, and consume the product (Bonnet & Westerman, 2021).

Employee experience increases customer experience to ensure that a break in the product or service is resolved as soon as possible, avoiding multiple repetitive engagements with customers (Grainer, Noble, Bitner & Broetzmann, 2014). Traditional subscription TV services predominately offer local customer support that must be perceived as on top in resolving issues and timeous feedback provision to keep the subscriber satisfied.

Increased customer experience will drive customer satisfaction, increase revenue, promote customer loyalty, and increase customer retention.

2.5.2 *Service Transformation and Innovation*

Service transformation requires the organisation to follow an approach that changes the entire operating model, not a specific segment of the organisation (Bonnet & Westerman, 2021). Transformation in traditional subscription TV is transforming technology, implementing video-on-demand services, partnering with customers, and delivering enhanced processes, products, and services that create value for both the organisation and subscribers.

Product development and innovation strategies are the main drivers in a constantly evolving industry to keep up with the customer's needs (Çevik, 2019). The use of innovative technology such as big data analytics and artificial intelligence drives the organisation's understanding of customer behaviour to be proactive. In traditional subscription TV, the organisation must have a 360-degree view of the subscriber, predict the next best action, and quickly resolve issues (Mulyana, 2019).

The transformation and enhancement of business processes and the adoption of the latest technology as products and service tools increase positive customer engagement and promote customer loyalty and increased customer retention.

2.5.3 *Brand Loyalty*

Brand loyalty requires an organisation to build a brand where customers will always want to be associated with it, customers are more likely to be loyal to an organisation that offers products and services that demonstrate values and resonate with the customer (Mulyana, 2019). Customers loyal to the brand are most likely to stay with it while competitors entice them to switch to their services.

In an era where subscribers are switching to video-on-demand services, traditional subscription TV services must build a brand that offers products and

service that encourages repeat purchases and upsell other services. Traditional subscription TV will build subscriber loyalty by offering incentives, inviting subscribers to actively participate in live events and most importantly, continually seeking feedback to enhance customer satisfaction and loyalty (Burez & Van den Poel, 2007).

Implementation of a loyalty program in a platform that gives additional value to the subscriber as they reach certain loyalty milestones that will drive satisfaction and promotion through “word-of-mouth” (Grainer et al., 2014). Positive word-of-mouth as a marketing tool influences customer satisfaction increasing loyal customers.

2.6 Theoretical Framework

The study aims to understand how subscribers seek and use media to satisfy specific needs and receive gratification hence adopting the Uses and Gratification (USG) Theory coined by (Katz, Blumler & Gurevitch, 1973) and the theory of the niche for organisations to compete to occupy a niche in an industry with limited resources such as subscriber numbers (Dimmick, Feaster & Hoplamazian, 2011).

2.6.1 *The Uses and Gratifications Theory*

Traditional subscription TV services follow the effects model, where content consumers have no power over what is broadcasted. This suggests that viewers are passive and do what the media tells them, including when they consume it. The media control power (Borah, 2015; Nordling, 2015).

The USG is credited to Katz et al. (1973) when they investigated the relationship between the viewer and how they use media to satisfy their needs. They further examined the links between Maslow's hierarchy of needs and how viewers use media to satisfy their needs for social connections, building their self-esteem, among others (Ayten & Bulat, 2019).

Video-on-demand changes media and entertainment narrative and give power to the audience as seen in the “uses and gratification theory” as it introduced the option to select what and when to what specific content. The audience actively consumes and uses the selected media to satisfy their needs (Ayten & Bulat, 2019; Chen, 2017).

The audience achieves gratification from the media in different ways:

- “Seek information” - allowing the viewer to select the content that enriches their knowledge with the purpose to gather information such as news and documentaries that inform them on what is happening around the world or to satisfy their curiosity.
- “Personal identity” – allowing the viewer to select the content that reinforces their values and personal beliefs, especially when they are going through a period of introspection of who they are and understanding the environment they find themselves in.
- “Building personal relationships” – allowing the viewers to select the content that aligns them with being part of a specific community and discussing common content and experiences.
- “Diversion” allows the viewer to use the content for pure entertainment and pass the time, especially after a long stressful day or when they need downtime.

The services provided by video-on-demand services change the viewer’s perspective and behaviour. They have the power to select the content they want when they want to satisfy their individual needs. This further highlights that media does not have any power on the viewer but empowers them to actively seek and use media to satisfy specific needs created through their own experiences.

2.6.2 *Theory of the Niche*

The origin of the “theory of the niche” evolved from the view of ecologists seeking to answer how populations in an ecological community would compete and co-exist over the limited available resources. Dimmick and Rothenbuhler (1984) first

used the theory of the niche in mass media where the populations in the media community constitute the newspaper companies, and it can be expanded to broadcasting organisations, including video-on-demand services organisations as they co-exist and compete for the limited number of subscribers for their services.

Video-on-demand services and traditional subscription TV services compete for subscribers by introducing new and innovative streaming services. Technology is constantly evolving, the mass media reaching mass audiences in the form of newspapers, radio, television, and recently the adoption of the Internet to deliver content to subscribers (Kim et al., 2016).

The introduction of streaming technology in the media and entertainment industry has introduced new challenges to the broadcasting organisations that impact their business, competing for a limited number of subscribers. Video-on-demand service providers provide services that entice subscribers to switch from traditional subscription TV services while traditional subscription services are trying to retain their subscriber base with both industries co-existing (Davis & Zboralska, 2017; Kim et al., 2017).

The niche in media and entertainment theory is applied to analyse competition between two media delivery such as streaming and broadcasting by measuring the niche breadth, niche overlap, and competitive superiority (Dimmick & Rothenbuhler, 1984; Kim et al., 2016).

- “Niche breadth” is used to measure the area covered by the niche. Video-on-demand may have been to have a narrow niche and be seen as a specialist (Sarrina-Li, 2001), and traditional subscription being a generalist having a broader range. Streaming innovation and access to the internet are changing the niche breadth in media and entertainment.
- “Niche overlap” - The similarities between video-on-demand and subscription TV services, where both services provide the same benefits to the subscribers. The lagging service will try to decrease the overlap

while the leading service will try to increase the overlap to differentiate itself and gain subscribers from its competitors.

- “Competitive superiority” - The comparison of two mediums to deliver content is analysed to measure the perceived satisfaction of subscribers. The superiority of each is seen to be providing gratification to its subscribers and displacing the competitor as they switch to the preferred media streaming service (Dimmick et al., 2011).

The theory of the niche is used to understand the competitive environment within the media and entertainment industry, led by the introduction of new industries facilitated by the adoption of the internet. Video-on-demand subscriptions threaten traditional subscription TV services as a displacement requiring them to innovate and differentiate themselves to survive and limit the number of subscribers switching (Kim et al., 2016).

2.6.3 *Perceived Impact on Traditional Subscription TV*

The subscriber base for video-on-demand services is steadily increasing while the traditional TV subscriber base is declining as the subscribers are cord-cutting and opting for video-on-demand. The second group of subscribers are cord-shaving, where they downgrade to lower packages of their traditional subscription TV services and complement their content consumption with video-on-demand services. The third group of subscribers are cord-nevers as they never had a traditional subscription TV and are opting to only subscribe to a video-on-demand service as their first and only content subscription service (Baccarne et al., 2013; Duhamel, 2021).

Cord-cutting, cord-shaving and cord-nevers may initially reduce the viewer's monthly subscription cost and impact the revenue generated by the traditional service provider. However, the subscriber requires multiple video-on-demand services to satisfy different needs as they provide different content consolidated by the traditional subscription TV. The viewer will have to subscribe to multiple services, “SVOD Stacking,” including the cost of internet access, which may be more than initially expected (Akyildiz, 2019).

2.6.3.1 Subscriber Cord Cutting:

The perceived benefits of video-on-demand are resulting in technologically savvy subscribers cancelling their TV subscriptions in favour of video-on-demand services (Park & Kwon, 2019). Subscribers are making a financial decision through evaluating their satisfaction with the cost of monthly subscription fees of traditional TV increasing and video-on-demand services offering cost-effective pricing with minimal setup cost as they already have the devices used to consume content (Kim et al., 2016).

Subscribers are not satisfied with watching content from traditional linear TV subscriptions that are full of advertisements and a high number of channels rerunning the same content they are not interested in or channel surfing to get the content they are interested in, while video on demand is offering them the opportunity to select content from different genres and watching them through different devices over the internet (Rubenking et al., 2018). The video-on-demand services also invest in generating exclusive content that is usually released immediately compared to traditional TV, which is released one episode per week (Akyildiz, 2019).

The availability and release of content in video-on-demand increase the need for binge-watching, allowing the viewer to increase social connections such as those experienced in book clubs (Flayelle et al., 2017), personal reward after a stressful period with content they can relate with, amongst other behavioural reasons (Flayelle et al., 2017; Rubenking et al., 2018).

Traditional subscription TV is not entirely declining, as seen in Multichoice's (2021a) financial results that it still satisfies a need of its subscribers. Traditional subscription TV provides access to news, live TV shows and sporting events not currently provided by video-on-demand services (Mulyana, 2019). The traditional TV providers are also innovating and delivering their pre-packaged linear channels using the internet to enable viewers to consume the content from any location and any smart device. The traditional TV providers are further building platforms that not only provide linear TV, complementing with value-added

services, collaborate with other content producers and provide over-the-top streaming services at a reduced cost (Abreu et al., 2016).

The decline of traditional subscription TV is still very low in countries such as South Africa. It is limited by the adoption of technology and the skills required to operate smart devices compared to the ease of use of a TV set (NRI, 2020). The lack of access to high-speed internet and the cost of data is also a limiting factor to the adoption of video-on-demand services. It negatively impacts the subscriber experience and satisfaction (McKane, 2021).

2.6.3.2 Subscriber Cord Shaving:

Cord shavers are not cancelling their services, and they rather downgrade to lower packages, especially from high-end premium packages (Kim et al., 2016; Nielsen, 2016). This group of subscribers has a direct impact on the traditional subscription TV services revenue as they reduce the revenue generated and bring down the average revenue per user (ARPU) (Park & Kwon, 2019).

Reasons for cord shavers are the same as those of cord cutters, but they still have a need that is only satisfied by a traditional subscription TV, such as live sports exclusive content, or they can justify the lower cost of a TV subscription. These subscribers pose a very high risk of cord-cutting as their satisfaction level changes or video-on-demand services become cheaper while traditional subscription TV becomes expensive; both traditional subscription TV services and video-on-demand services are innovating to retain them (Abreu et al., 2016).

2.6.3.3 Subscriber Cord Nevers:

Cord-nevers are those subscribers who have never subscribed to a traditional TV service. They are technologically savvy subscribers that prefer video-on-demand services (Baccarne et al., 2013). Most of these subscribers are millennials and generation Z that have adapted to the use of technology, have the technical skills required to consume content on the go, are not bound to a specific location and already have smart devices in their households they use daily (Ayten & Bulat, 2019; Matrix, 2014).

These are the future subscribers; they pose a higher risk to traditional subscription TV. When older generations stop their subscriptions, the services will not have new subscribers entering the broadcasting industry, requiring them to innovate and launch services that will remain relevant.

Changes in subscriber behaviour and gratification plays a crucial role in subscriber switching, requiring traditional subscription TV services to understand the reasons for cord-cutting, cord-shaving and cord-nevers and adapt their services to subscribers based on the perceived value received.

Innovative and niche technology from different service providers is changing the industry landscape, introducing overlapping products and increasing competition for the subscriber population. Traditional subscription TV services must continue to differentiate or be displaced by video-on-demand using the new medium of the internet.

2.7 Hypotheses Development

A hypothesis in a research study provides a statement that explains a possible outcome, and it is normally an unproven guess from the researcher (Zikmund, Babin, Carr & Griffin, 2010).

2.7.1 *Media consumption, subscriber behaviour, media content expectations, streaming technology innovation and switching*

Literature provides evidence that the changing media consumption behaviour of subscribers has a direct impact on subscribers switching from traditional subscription TV services to video-on-demand services, with subscriber viewing patterns changing from watching television only at home to watching on the go wherever they are (Flayelle et al., 2017; Pradsmadji & Irwansyah, 2020; Rubenking et al., 2018). The expectation of subscribers when it comes to the availability of content for binge-watching when they are stressed and want to relax or learn something is also having a direct impact on subscribers switching from traditional subscription TV services to video-on-demand services (Collico-Savio,

2013; Gupta & Singharia, 2021; Ruether, 2021). Both media consumption behaviour and newly developed expectations driven by video-on-demand services are introducing competitiveness in the entertainment and media industry. Streaming technology is changing at a rapid pace, making it easier for subscribers to adopt video-on-demand services as they satisfy their need to consume content unrestricted and directly impacting traditional subscription TV subscribers as they switch to video-on-demand (Davis & Zboralska, 2017; Tayibnapis et al., 2019; Westerman et al., 2014; Yokoi et al., 2019). Based on these views, the following hypotheses were therefore proposed:

H1a: Increasing streaming services competitiveness will positively influence video-on-demand services adoption and subscriber satisfaction.

H1b: Introduction of new streaming technology innovations positively influences video-on-demand services adoption and subscriber satisfaction.

2.7.2 *Digital transformation and broadcasting innovation*

Literature provides evidence that digital transformation in traditional subscription services directly impacts traditional broadcasters' services that subscribers are willing to consume and satisfy their needs (Bonnet & Westerman, 2021; Westerman et al., 2014). Innovation in broadcasting is also changing at a fast pace. It directly impacts traditional broadcasters' services, allowing subscribers to stream live content on smart devices wherever they are and providing them with additional video-on-demand services (Kim et al., 2016; Ruether, 2021; Urgelles, 2017). The study, therefore, proposed the following hypothesis:

H2a: Increasing digital transformation and traditional broadcasting innovation will result in an increase in traditional subscription TV services competitiveness and subscriber retention

2.7.3 *Subscriber satisfaction, subscriber switching, retention strategies and traditional subscription TV services competitiveness*

Literature provided evidence that subscribers are switching to video-on-demand services and have a direct effect on decreasing the subscriber base of traditional subscription services as subscribers are either cord-cutting, cord-shaving or cord-nevers to satisfy their need to consume content utilising new technology (Akyildiz, 2019; Baccarne et al., 2013; Park & Kwon, 2019). Traditional subscription TV services are introducing retention strategies that have a direct impact on the subscriber base of traditional subscription services as they offer loyalty programs access to exclusive live sporting events to remain competitive in a changing media and content environment (Akyildiz, 2019; Burez & Van den Poel, 2007; Mulyana, 2019; Ruether, 2021). The following hypotheses were therefore proposed

H3a: Increasing streaming satisfaction and subscriber switching will result in a decrease in the traditional subscription TV services subscriber base.

H3b: Increasing traditional subscription TV service competitiveness and retention strategies will result in an increase in the traditional subscription TV services subscriber base.

2.8 Conceptual Framework

The study followed the theoretical frameworks and the reviewed literature to develop a conceptual framework used to explain the changes in subscriber behaviour and technology innovation that lead to the adoption of video-on-demand services and impact on traditional subscription TV subscriber base performance, as shown in Figure 2-6 below.

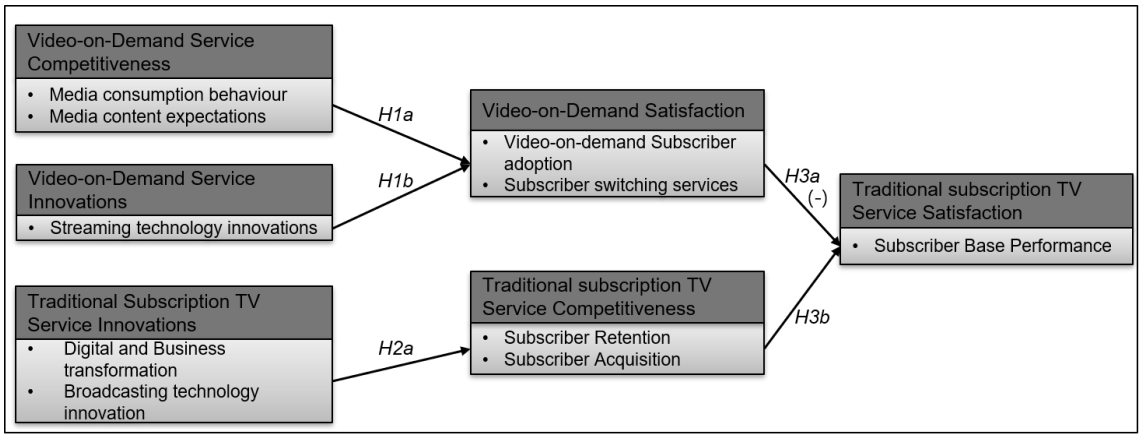


Figure 2-6 – Study's Conceptual Framework

Source: Author's construct (2021)

Figure 2-6 presents an illustration of the study's proposed hypotheses. The study sought to analyse the relationship between the competitiveness of video-on-demand services due to changing subscriber behaviour and their content streaming expectation (H1a), innovations introduced by streaming technologies (H1b) and subscribers' satisfaction as they adopt video-on-demand services, switching from traditional subscription TV services and impacting the performance of its subscriber base (H3a). Traditional subscription TV services will need to implement innovative solutions as they digitally transform their services to be more competitive in the industry to minimise the effect of subscribers switching to other services as they retain and acquire new subscribers (H2a), increasing subscriber satisfaction and reducing the impact on the performance in its subscriber base (H3b).

2.9 Literature Review Conclusion

The review of available literature provided an insight into the adoption of video-on-demand services and their perceived impact on traditional subscription TV services.

Video-on-demand services are becoming competitive and innovative, increasingly being adopted by subscribers as they change their viewing

behaviour and content expectations. Traditional subscription TV services subscribers are switching, requiring business and technological transformation and an increase in investment in delivering innovation to meet subscribers' needs to maintain a high level of subscriber satisfaction whilst competing with video-on-demand services.

The summarised research objectives and hypotheses are listed in Table 2-1 below in the consistency table.

Table 2-1 - Consistency Table: Research Objectives and Hypotheses

RO #	Research Objective	Hyp #	Hypothesis
1	To identify reasons for subscribers switching from traditional subscriptions TV services to video-on-demand services.	H1a	Increasing streaming services competitiveness will positively influence video-on-demand services adoption and subscriber satisfaction.
2	To identify key competitive trends and innovation driving the adoption of video-on-demand services.	H1b	Introduction of new streaming technology innovations positively influences video-on-demand services adoption and subscriber satisfaction.
3	To identify digital transformation and innovations implemented by the traditional subscription TV services to enhance their services.	H2a	Increasing digital transformation and traditional broadcasting innovation will result in an increase in traditional subscription TV services competitiveness and subscriber retention.
4	To evaluate the impact of subscriber switching on the subscription base of traditional subscription TV services.	H3a	Increasing streaming satisfaction and subscriber switching will result in a decrease in the traditional subscription TV services subscriber base.
5	To evaluate the effectiveness of retention strategies against the perceived benefits of video-on-demand.	H3b	Increasing traditional subscription TV service competitiveness and retention strategies will result in an increase in the traditional subscription TV services subscriber base.

Source: Developed for this Study

CHAPTER 3. RESEARCH METHODOLOGY

The main purpose of this study was to evaluate the perceived impact of video-on-demand services on subscription TV services in South Africa. The previous chapter presented academic literature on the technological disruption and perceived benefits of subscribers to satisfy their needs arising from differences in traditional subscription TV and video-on-demand.

This chapter provides a detailed view of how the research was conducted, presenting the research methodology, research design, methods and procedure for data collection, population and sample, research instrument, the analysis and interpretation of the collected data, how reliability and validity were maintained and ethical considerations required throughout the study.

3.1 Research Approach

The research approach provided a detailed plan followed throughout the study to answer the research objectives. The research approach links the theoretical framework from the literature review to data collection (Creswell & Creswell, 2017). The deductive or inductive approach can be selected for the study's reasoning (Saunders, Lewis & Thornhill, 2009).

The study utilised a quantitative research strategy following a deductive approach. The study followed a top-down approach. It began with a theory-driven hypothesis guiding data collection and analysis to test the theory that it either agrees or disagrees with it (Saunders et al., 2009).

3.2 Research Design

After formulating a research problem, the researcher created a research design to guide the study. The research design guided the study by defining the procedures and methods used in analysing the data (Zikmund et al., 2010). The research design should be designed to answer all research questions and

objectives, indicating the sources where data was collected, factoring in any limitations and ethical issues (Saunders et al., 2009).

As stated by Saunders et al. (2009) in Figure 3-1, the research onion lists research strategies such as surveys, case studies, experiments, action research, grounded theory and archival research and the time horizon as cross-sectional and longitudinal.

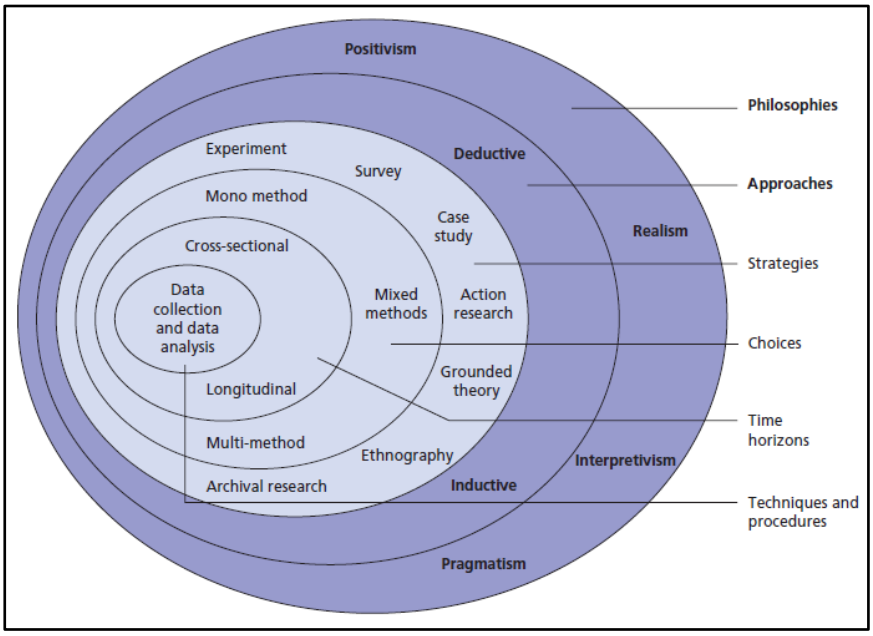


Figure 3-1 - Research Onion

Source: Saunders et al. (2009)

A survey is used to collect a large amount of data from multiple respondents economically utilising a questionnaire shared with all respondents returning standardised quantitative responses for easy analysis using statistical tools (Saunders et al., 2009).

The study utilised a cross-sectional survey design using a deductive approach. The cross-sectional time horizon allows the researcher to collect data from respondents during a specific time, allowing respondents to complete the survey once they receive it and send it back immediately (Zikmund et al., 2010).

The benefit of a cross-sectional survey for the study is that it is a single survey, reducing fatigue and the limited time required to complete the study. The study used the cross-sectional survey due to the available time to complete the study, excluding the longitudinal survey study (Bryman, 2016; Saunders et al., 2009).

The benefits of surveys were mostly the lower cost of data collection. The study was self-administered over the internet and gave the researcher control over the data collected and analysed once data was collected.

3.3 Data Collection Methods

In order to answer the research question and research objectives, the best and most fitting data collection methods were selected. Following a descriptive-explanatory research approach, the research questionnaire was selected to collect data. Questionnaires may be used to collect primary data and complement another method to enhance the collected days (Saunders et al., 2009).

The study utilised a self-administered questionnaire using Qualtrics online system as a delivery method. The respondents independently completed the questionnaire after receiving the link using their internet-connected computers or smart devices, as guided by Saunders et al. (2009).

The collection method ensured ease of completion from targeted respondents and reached them on their devices; even when they were on the go, they could complete the survey questionnaire. The survey had only appropriate questions to ensure they were all completed, and the responses were not altered when they were stored. The responses from respondents were collected over 4 weeks to minimise the changes in respondents' views and perceptions.

3.4 Population and Sample

The population of the study is defined as the domain where a sample was selected (Bryman, 2016). The population is further described as a comprehensive collection of items with common features such as organisations, employees,

members of specific interests or groups that pose information required by the researcher and all those individuals in which a particular study has an interest (Gravetter & Wallnau, 2016; Wotela, 2017).

The research sample is defined as a smaller subset selected from the population intended to represent the population they were selected from (Bryman, 2016; Gravetter & Wallnau, 2016). A sampling technique is required for the researcher to select a subset of respondents to ensure the sample is balanced in representing the population allowing results to be generalised and maintaining the study's integrity (Wotela, 2017).

The sampling process follows two approaches: random probability broken down into simple and systematic random sampling and non-random probability broken down into convenience and purposeful sampling (Wotela, 2017).

3.4.1 *Population*

The study was interested in individuals who are actively subscribed to a video-on-demand service in South Africa which made the population of the study to be the subscriber base of video-on-demand service providers in different provinces where they reside. The video-on-demand service providers periodically release the actual size of the population, or their subscriber base is estimated where service providers such as Netflix releases global subscriber numbers.

Netflix subscriber numbers have been estimated to be growing from about 44 000 subscribers in 2016 to about 338 000 subscribers in 2020 (Statista, 2020). DStv had 1.5 million subscribers that have full access to Showmax through their monthly DStv subscription in 2020 as per the company's integrated financial report (Multichoice, 2021a). There are multiple streaming and broadcasting service providers in South Africa that form part of the population where their actual subscriber numbers are not publicly available. The respondents of the study were screened from those who had an active video-on-demand or subscription TV service.

3.4.2 *Sample and Sampling Method*

The study's sample was selected as a subset of subscribers subscribed to video-on-demand services and had or still have access to traditional subscription TV services. The study respondents were from an age group of 21 and above including both males and females regardless of their employment status, marital status, access to technology, internet connectivity and their province.

The study aimed to achieve a sample of about 250 respondents. The sample was drawn from groups of video-on-demand subscribers using the Wits University final year, professional degree and postgraduate students through the university deputy registrar's office and various private social media groups in different provinces from different backgrounds and technological usage to represent the population.

The study followed a simple probability random sampling technique linked to survey strategies where each respondent in the population had a possibility of being selected and had a high yield to deliver a representative sample where results can be generalised as guided by Saunders et al. (2009).

3.5 The Research Instrument

A research instrument generally refers to a tool used to collect research data for the study, with the most common types being interviews, observations and questionnaires. The research instrument for this quantitative study utilised a self-administered survey questionnaire delivered online. A self-administered survey questionnaire required the respondents to read and understand the questions without the help of the researcher (Bryman, 2016). The questionnaire must be shorter and clear for the respondents (Bryman, 2016) to ensure a high response rate.

The study utilised a quantitative survey instrument to collect data from subscribers of video-on-demand services to establish subscribers' perceived benefits over the traditional subscription TV services within South Africa based

on their usage and gratification and the competition between the two media delivery industries. This study used an online self-administered questionnaire.

The survey instrument began with a screening question to ensure that the respondent had active video-on-demand service. The first section of the instrument comprised questions 1 to 4 collecting the respondent's personal information. The second section comprised questions 5 to 11, collecting household information to understand how video-on-demand services are accessed.

The third and final section utilised a 7-point Likert scale from strongly disagree (1) to strongly agree (7), as shown in Table 3-1, to capture the respondent feedback for each statement. The questions were developed with input from the literature reviewed, input from general discussions, web articles, co-workers and feedback from the proposal review committee.

Table 3-1 - 7-Point Likert Scale

Degree of Agreement	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
Mean	1.00	2.00	3.00	4.00	5.00	6.00	7.00

Source: Author's construct (2021)

The scales of the third section consisted of 6 questions. Question 14 (items VC1 to VC5) investigated video-on-demand competitiveness (VC). Question 15 (items VI1 to VI5) investigated video-on-demand innovation (VI). Question 16 (items TVC1 to TVC5) investigated traditional subscription TV competitiveness (TVC). Question 17 (items TVI1 to TVI5) investigated traditional subscription TV Innovation (TVI). Question 18 (items TVS1 to TVS5) investigated traditional subscription TV service satisfaction (TVS), and question 19 (items VS1 to VS4) investigated video-on-demand subscription satisfaction (VS).

The instrument contained some questions where the items were reversed. A strongly disagree response was taken as a positive response, whilst a strongly agree response depicted a negative response, as shown in Table 3-2.

Table 3-2 - Reversed 7-Point Likert Scale

Degree of Agreement	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
Mean	7.00	6.00	5.00	4.00	3.00	2.00	1.00

Source: Author's construct (2021)

The reversed items were part of question 18 for traditional subscription TV service satisfaction being items TVS1, TVS2 and TVS5 also part of question 19 for video-on-demand satisfaction being item VS1.

Respondents were first asked if they had any content subscriptions. When they did not have an active subscription, they were asked if they would consider a video-on-demand of traditional TV subscription in the future and the survey closed. Those respondents who had either a video-on-demand subscription or a traditional subscription TV service were not asked the corresponding satisfaction question (Q18 or Q19).

The constructs are derived from literature to analyse various aspects, as illustrated in Table 3-3 below:

Table 3-3 - Research Instrument Construct

Construct	Sources
Usage and expectations of video-on-demand services	(Flayelle et al., 2017; Pradsmadji & Irwansyah, 2020; Rubenking et al., 2018)
Usage and expectations of subscription TV services	(Akyildiz, 2019; Burez & Van den Poel, 2007; Mulyana, 2019; Ruether, 2021)
Appeal, competitiveness and disruptive trends	(Collico Savio, 2013; Gupta & Singharia, 2021; Ruether, 2021; Yokoi et al. 2019)
Digital transformation and media innovations	(Bonnet & Westerman, 2021; Westerman et al., 2014; Kim et al., 2016; Ruether, 2021; Urgelles, 2017)
Subscriber satisfaction	(Akyildiz, 2019; Baccarne et al., 2013; Park & Kwon, 2019)

Source: Drawn from various sources

The research instrument questionnaire used for collecting data is accessible in Appendix B.

3.6 Procedure for Data Collection

The process of collecting data can be broken down into two different processes, the collection of primary data where the researcher sources data directly from the respondent such as observations, interviews or questionnaires and secondary data where data is collected from consensus reports, organisation historical data and others (Saunders et al., 2009; Wotela, 2017).

The study utilised an online survey designed using the Wits Business School Qualtrics system, distributed through the Wits University email platform for university students and further sent out using social media platforms. A wider sample was targeted due to the lower priority and other factors associated with survey non-completion to minimise the effect of low responses, missing and incomplete data from respondents as guided by Saleh and Bista (2017).

The following process was followed for data collection:

- Wits University email platform

    - Permission was requested to publish the survey link with all the required documentation.
    - After approval was received, the “Participant Information Sheet” was sent, and a date was allocated for the questionnaire to be sent out.
    - The questionnaire was sent to the Wits University groups selected during the approval application.
- Newsletters
    - Permission was requested from the administrators of the clubs and homeowner’s association with all the relevant documentation attached.
    - The “Participant Information Sheet” was added to the weekly newsletters to members to complete the survey.
- Social Network
    - The survey link with information about the study was posted on Facebook, requesting the respondents to complete the survey.
    - The survey link with information about the study was sent to all WhatsApp contacts requesting the respondents to complete and forward the survey to their contacts to increase the survey response rate.

The raw data collected from the survey results was securely stored on the researcher's “Microsoft One Drive” and a backup copy stored on the researcher's “Google Drive” for the duration of the study and ensured all ethical requirements were achieved.

3.7 Data Analysis and Interpretation

After completing the data collection processes, the raw data was converted into a format analysed and interpreted to answer the research question or achieve the research objectives (Zikmund et al., 2010). The raw data was not ready to be used in an electronic system for analysis; some contained errors from both the respondent and the researcher. The errors were corrected to increase the study's

validity and reliability. Error checking was done in the following steps (Zikmund et al., 2010):

- Editing – any error during the completion of the surveys or moving raw data was edited as the data was verified to ensure integrity and completeness to avoid errors when data were analysed through SPSS Version 27.
- Coding – The raw data were converted to numerical values or a set classification code highlighting certain meanings in the data. The reserved items were coded to reflect the correct data value.
- Data file – the results of coded data were stored in a data file, and further consistency checks were performed to ensure validity and reliability, as explained under the validity and reliability section.

Raw data collected from the study was first to be analysed for completion. Depending on the level of incompleteness and invalid data, these records were recorded but excluded for analysis, while some records were edited where participant or researcher error was discovered. Raw data was coded to convert qualitative data into quantitative numerical values to speed analysis using the selected modelling tool. Data were analysed and presented using descriptive statistics which provided the basic information about the study's data and factor analysis was used to reduce the items in a construct. Regression analysis was used to estimate the relationships between dependent variables and independent variables, and correlation analysis to test the strength and the significance between variables (Zikmund et al., 2010).

Data tools were used to edit, clean and code and present the received responses. The tools used included Microsoft Excel, Microsoft SQL Server and Microsoft PowerBI. Incomplete responses were removed from the study to ensure completeness and integrity of the study (Rubin, 1976).

The collected data file was statistically analysed using IBM SPSS Statistics version 27.0.0.0 as a statistics tool with the ability to perform regression data

analysis. Wits Business School provided an academic usage license to research students.

3.8 Validity and Reliability

The study research design should ensure credibility when collecting and delivering its results. The results must withstand any scrutiny following the selected research methods (Saunders et al., 2009). For a quantitative research study, reliability and validity (both internal and external validity) are used to ensure credibility. These were measured in this study.

3.8.1 *Validity*

The study's validity ensures that the results of the study measure what is intended, and the results are presented truthfully. Validity can be measured through internal validity, where questionnaires are checked to measure what they intended to measure and external validity to check the generalisability of the findings on the population. Content validity is where the questionnaire is designed to provide enough coverage to produce results. Construct validity is where the results measure the construct they are intended to measure. Validity also further informs how data is gathered from the initial research objective (Golafshani, 2003; Saunders et al., 2009).

This study utilised Qualtrics to gather data from respondents from different backgrounds, age groups, access and usage of technology to ensure external validity. The same questionnaire was used across all respondents during the same period to ensure internal validity.

Validity was further tested using the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) ranging between 0 and 1, where the value between 0.7 and 0.8 is generally regarded as a good value (Field, 2009). Bartlett’s test of sphericity was also used to measure statistical significance between related variables in the study, where the significance value must be less than 0.05 to be statistically significant (Field, 2013).

3.8.2 *Reliability*

The reliability of the study requires that results would be consistent over time when replicated by another researcher using the same data collection techniques and analysis procedure (Golafshani, 2003).

The threats to reliability are participant and researcher error and bias, which must be considered to increase reliability. The research questions must be designed to be clear and simple, with a clearly explained purpose and an execution plan (Saunders et al., 2009).

The study used Cronbach's alpha values to measure construct and internal consistency reliability. The overall results were calculated between 0 and 1 from a group of questions with the value of 0.7 regarded as a good score; however, a lower score may still be acceptable, as guided by methodology literature (Field, 2013; Zikmund et al., 2010).

3.9 Ethical Considerations

Ethics in research guides the researcher's behaviour as they interact with the study participants upholding their rights, including how they would be affected as they participated in the study. Ethics introduces standards and guidelines to uphold moral obligations towards the participant that must be upheld throughout the study from defining the research topic, data collection, storage, processing and presentation of the final report (Saunders et al., 2009).

In carrying out the study, the researcher was guided by Thomson (2012), who notes that ethical standards are defined to protect the rights of participants with the following ethical considerations:

Ethical considerations before data were collected:

- The study ethical consideration was presented to the Wits Business School ethics committee for approval. No data was collected from

respondents until after ethical clearance was obtained from the school ethics committee and the ethical approval letter attached on Appendix C.

Ethical processes followed during the collection of data:

- Before the instrument was sent to any groups, permission was requested to comply with the Protection of Personal Information Act (POPIA) to avoid sending unsolicited emails. Wits University's approval letter to send email surveys to students' email groups is attached in Appendix D.
- The researcher identified themselves, provided relevant ethical clearance documents, and explained the reasons and outcome of the study as shown in the participant information sheet in Appendix A.
- Consent was sought and obtained from the respondent. If any explanation was required, it was provided, and the respondent was informed that consent could be withdrawn at any given time throughout the study and abandon the survey completion.
- The researcher familiarised themselves with POPIA to protect the rights of the respondents.
- No data was collected from anyone under the age of 21.
- Data were collected anonymously and stored in a password-protected file on Microsoft OneDrive and a backup on Google Drive.

Ethical process followed for data storage, analysis and reporting:

- Data was stored, analysed and reported anonymously to respect the anonymity of all respondents.
- Data stored safely for the required period of the study and made available to the respondents, supervisor and Wits Business School when requested.
- The reporting of findings was honest and accurate, satisfying any validity and reliability even when they differ from the researcher’s view.
- The reporting of findings did not suppress any view, falsify or create data to represent the researcher’s or the audience’s view.

Table 3-4 - Consistency Table: Research Objectives, Hypotheses, Data Collection and Data Analysis

RO #	Research Objective	Hyp #	Hypothesis	Data collection detail	Data analysis method
1	To identify reasons for subscribers switching from traditional subscriptions TV services to video-on-demand services.	H1a	Increasing streaming services competitiveness will positively influence video-on-demand services adoption and subscriber satisfaction.	Question 14 and 19 (7 point Likert statements)	Regression analysis
2	To identify key competitive trends and innovation driving the adoption of video-on-demand services.	H1b	Introduction of new streaming technology innovations positively influences video-on-demand services adoption and subscriber satisfaction.	Question 15 and 19 (7 point Likert statements)	Regression analysis
3	To identify digital transformation and innovations implemented by the traditional subscription TV services to enhance their services.	H2a	Increasing digital transformation and traditional broadcasting innovation will result in an increase in traditional subscription TV services competitiveness and subscriber retention.	Question 16 and 17 (7 point Likert statements)	Regression analysis
4	To evaluate the impact of subscriber switching on the subscription base of traditional subscription TV services.	H3a	Increasing streaming satisfaction and subscriber switching will result in a decrease in the traditional subscription TV services subscriber base.	Question 18 and 19 (7 point Likert statements)	Regression analysis
5	To evaluate the effectiveness of retention strategies against the perceived benefits of video-on-demand.	H3b	Increasing traditional subscription TV service competitiveness and retention strategies will result in an increase in the traditional subscription TV services subscriber base.	Question 16 and 18 (7 point Likert statements)	Regression analysis

CHAPTER 4. DATA ANALYSIS AND PRESENTATION OF RESULTS

4.1 Introduction

This chapter presents results from respondents by first presenting the characteristics of the respondents and the characteristics of their household, then using descriptive statistics to provide basic information about the study's data, reliability analysis using Chronbach's alpha values, regression analysis to estimate the relationships between dependent variables on independent variables, correlation analysis to test the strength and the significance between variables and factor analysis. This chapter further presents the test results of the proposed hypotheses derived from the study's objectives through regression analysis of the related variables. The data for this chapter is sourced from the study's primary responses.

4.2 Sample Characteristics

Table 4-1 - Survey Response Overview

Variable	Frequency	Percentage
Active Subscription	233	78.5%
Incomplete Reponses	45	15.2%
No Active Subscriptions	19	6.4%
Total Respondents	297	100.0%
Active Subscription		
Both Video-on-demand and Subscription TV service	134	57.5%
Only Video-on-demand	65	27.9%
Only Subscription TV service	34	14.6%
Total	233	100.0%
Incomplete Responses		
Both Video-on-demand and Subscription TV service	18	40.0%
Only Video-on-demand	8	17.8%
Only Subscription TV service	19	42.2%
Total	45	100.0%
No Active Subscription (Future Plan)		
Both Video-on-demand and Subscription TV service	2	10.5%
Only Video-on-demand	6	31.6%
Only Subscription TV service	2	10.5%
None	9	47.4%
Total	19	100.0%

Table 4-1 summarises the numbers of respondents received for the study. There was a total of 297 respondents who attempted to complete the survey. The respondents who had an active media subscription accounted for 78.5%, followed by 15.2% of respondents who abandoned the survey leading to an incomplete survey, and 6.4% of respondents indicated they had no active media subscription. The study thus had 233 useable responses.

Of the 233 respondents who completed the survey, 57.5% subscribed to both video-on-demand and traditional subscription TV services. 27.9% of the respondents only subscribed to video-on-demand services, and 14.6% of respondents only subscribed to traditional subscription TV services.

The 45 respondents who did not complete the survey indicated that 42.2% of respondents subscribed only to traditional subscription TV services, 40.0% of respondents subscribed to both video-on-demand and traditional subscription TV services and 17.8% respondents subscribed only to video-on-demand services.

The 19 respondents who were excluded due to not having any media subscription service highlighted that 47.4% were not planning to take up any subscription, 31.5% were planning to subscribe only to a video-on-demand service, 10.5% were planning on subscribing to both video-on-demand and traditional subscription TV service and 10.5% planning to only subscribe to a traditional subscription TV service.

The characteristics of the respondent sample were broken down into two subsections for further analysis. The first section focused on the individual respondent characteristics that actively participated in the study, while the second section focused on the household characteristics to analyse how content is consumed in and selected in each household.

The researcher used a sample size of 233 responses to complete the data analysis.

4.2.1 *Respondents Characteristics*

The study collected individual characteristics who subscribed to either a video-on-demand service, a traditional subscription TV service or both services.

4.2.1.1 Gender

Table 4-2 illustrates the distribution of the sample according to gender. The sample was almost equal between males and females, with males representing 51.5 %, females at 46.78%, and the remaining 1.72% preferred not to disclose their gender.

Table 4-2 - Gender

Gender	Subscription			Total	% Total
	Video-on-Demand and Subscription TV	Video-on-Demand Only	Subscription TV Only		
Male	76	25	19	120	51.50%
Female	55	39	15	109	46.78%
Prefer not to say	3	1	0	4	1.72%
Total	134	64	34	233	100%

4.2.1.2 Age Group

Table 4-3 illustrates the distribution of the sample according to age. The 21-29 and 30-39 age groups were the highest at 31.76% respectively, followed by the 40-49 age group at 29.18%, the 50-59 age group at 5.58%, 60-69 age group at 1.72% and no respondent above the age of 70.

Table 4-3 - Age Group

Age	Subscription			Total	% Total
	Video-on-Demand and Subscription TV	Video-on-Demand Only	Subscription TV Only		
21 - 29	41	24	9	74	31.76%
30 - 39	44	25	4	74	31.76%
40 - 49	40	14	14	68	29.18%
50 - 59	7	1	5	13	5.58%
60 - 69	2	1	1	4	1.72%
70+	0	0	0	0	0.00%
Total	134	65	34	233	100%

4.2.1.3 Employment Status

Table 4-4 illustrates the distribution of the sample according to employment status. The highest number of respondents, at 60.09%, were employed, followed by students at 25.75%, self-employed at 12.02%, others at 1.72% and the unemployed being 0.43%.

Table 4-4 - Employment Status

Employment Status	Subscription			Total	% Total
	Video-on-Demand and Subscription TV	Video-on-Demand Only	Subscription TV Only		
Employed	82	37	21	140	60.09%
Student	34	18	8	60	25.75%
Self-Employed	14	9	5	28	12.02%
Other	3	1	0	4	1.72%
Unemployed	1	0	0	1	0.43%
Total	134	65	34	233	100%

4.2.1.4 Marital Status

Table 4-5 illustrates the distribution of the sample according to marital status. The majority of the respondents accounting for 53.22% were married, followed by singles at 42.06%, divorced at 3.86% and lastly, those who preferred not to disclose their marital status at 0.86%.

Table 4-5 - Marital Status

Marital Status	Subscription			Total	% Total
	Video-on-Demand and Subscription TV	Video-on-Demand Only	Subscription TV Only		
Married	80	22	22	124	53.22%
Single	49	37	12	98	42.06%
Divorced	3	6	0	9	3.86%
Prefer not to answer	2	0	0	2	0.86%
Total	134	65	34	233	100%

4.2.2 *Household Characteristics*

The study collected household characteristics where the individuals belonged to ascertain how these subscriptions are received and utilised within these households.

4.2.2.1 Household Size

The 233 respondents used as the sample belonged to different size households. The household sizes are illustrated in Figure 4-1 with households of 5 and more individuals being the highest at 27.9%, then 4 individuals at 29.18%, 3 individuals at 14.16%, 2 individuals at 19.31% and finally 9.44% for a single individual household.

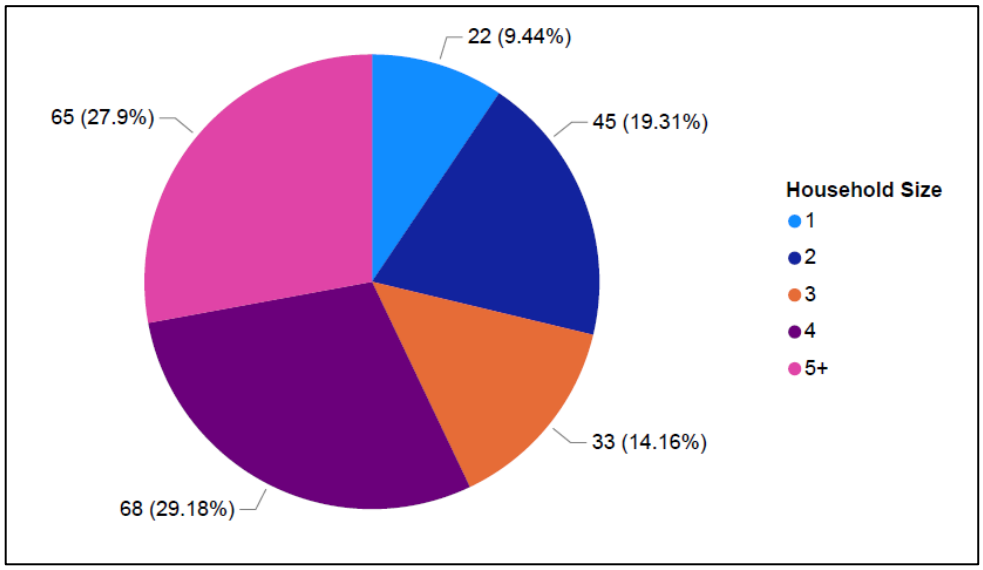


Figure 4-1 - Household Size

4.2.2.2 Residential Province

The highest number of respondents were residing in Gauteng at 85.41%, followed by Limpopo at 4.29%, KwaZulu Natal at 3.00%, Mpumalanga at 2.15%, Eastern Cape at 1.72%, Western Cape at 1.29%, Free State at 0.86%, North-West at 0.86% and Northern Cape 0.43% as illustrated in Figure 4-2.

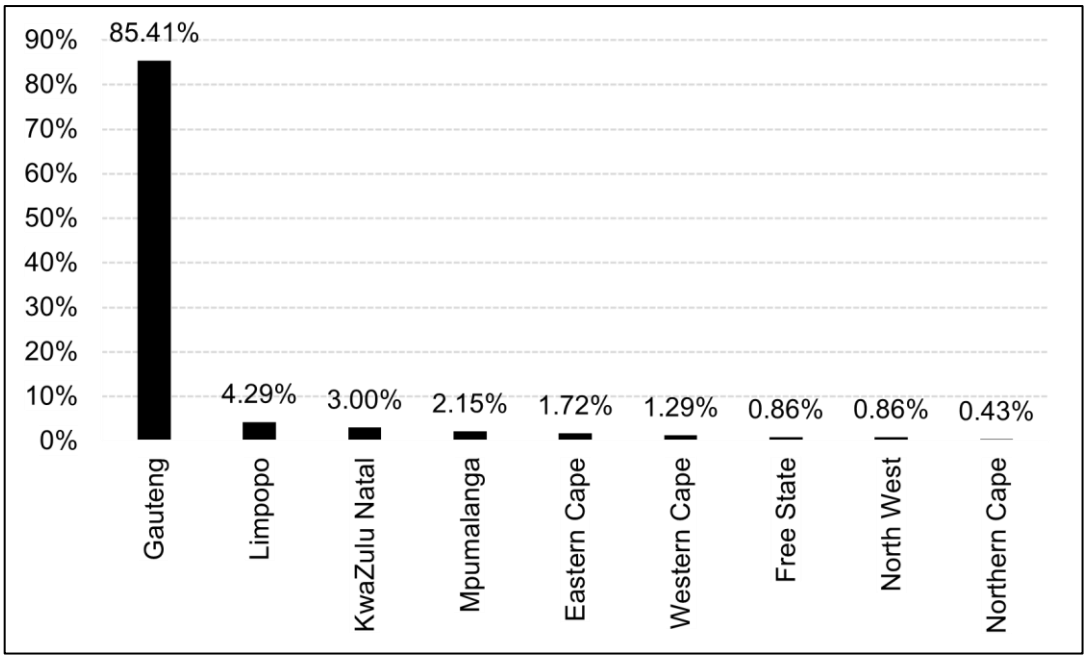


Figure 4-2 - Residential Province

4.2.2.3 Internet Connection

Video-on-demand services require the subscriber to access content on the internet using a certain internet connection. The respondents had various methods for connecting to the internet and could connect using multiple internet connections. The majority of the respondents had access to a Fibre connection which amounted to 48.54%, followed by “Mobile Data” at 19.74%, “Wireless Service Provider” at 14.24%, LTE at 9.39%, 5G at 3.83% and ADSL, as illustrated in Figure 4-3.

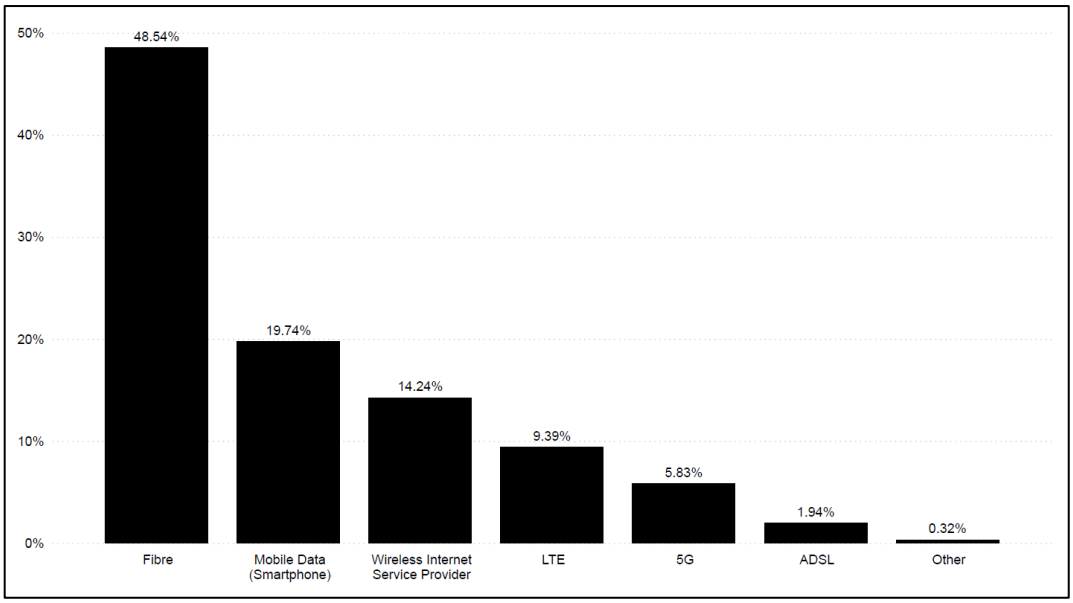


Figure 4-3 - Internet Connection

4.2.2.4 Video-on-Demand Streaming Services

The highest number of respondents were subscribed to Netflix at 49.97%, followed by Showmax at 29.49%, “Amazon Prime Video” at 9.92%, “Apple TV” at 6.17% and 4.56% had other video-on-demand subscriptions as illustrated in Figure 4-4.

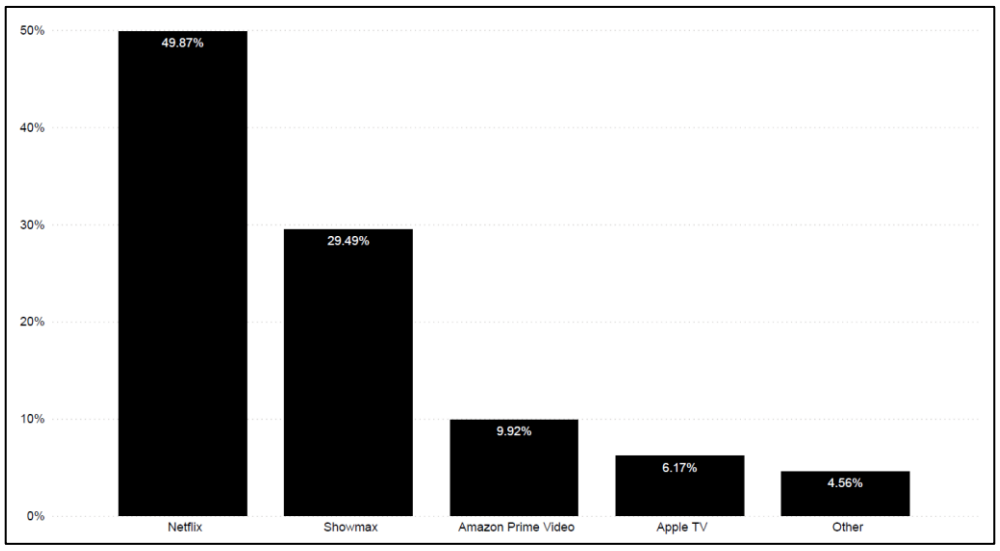


Figure 4-4 - Video-on-Demand Streaming Services

While the mainstream subscription services were popular amongst respondents, there are, however a few niches and specific video-on-demand services subscribed by some respondents within the South African market to complement their needs, such as “Britbox” for British television “Crunchyroll” for access to Anime, Truth TV for faith and religion, “My Family Cinema” for general media entertainment and “YouTube Premium” for Ad-free access to general media entertainment.

4.2.2.5 Traditional TV Subscription Service and Package

Table 4-6 illustrates the traditional TV subscription packages the respondents subscribed to, with Premium being the highest at 60.12%, followed by Compact at 21.43%, “Compact Plus” at 11.31%, Family at 5.36% and other smaller packages contributing 1.19%.

Table 4-6 - Traditional TV Subscription Service and Package

	Premium	Compact Plus	Compact	Family	Other	Total
DStv	100	19	36	9	3	167
StarTimes	1					1
Total	101	19	36	9	3	168
%Total	60.12%	11.31%	21.43%	5.36%	1.19%	100%

4.2.2.6 Streaming Devices

Subscribers utilise multiple streaming devices to consume content in their households. 26.65% of subscribers used their smart TV sets as their main streaming device followed by 25.22% using their PC or Laptop, 23.61% using their smartphones, 10.20% using their Tablet Device, 7.51% using an HDMI streaming device connected to their TV Set, 6.08% using a Gaming Console and the remaining 0.72% using other streaming devices as illustrated in Figure 4-5.

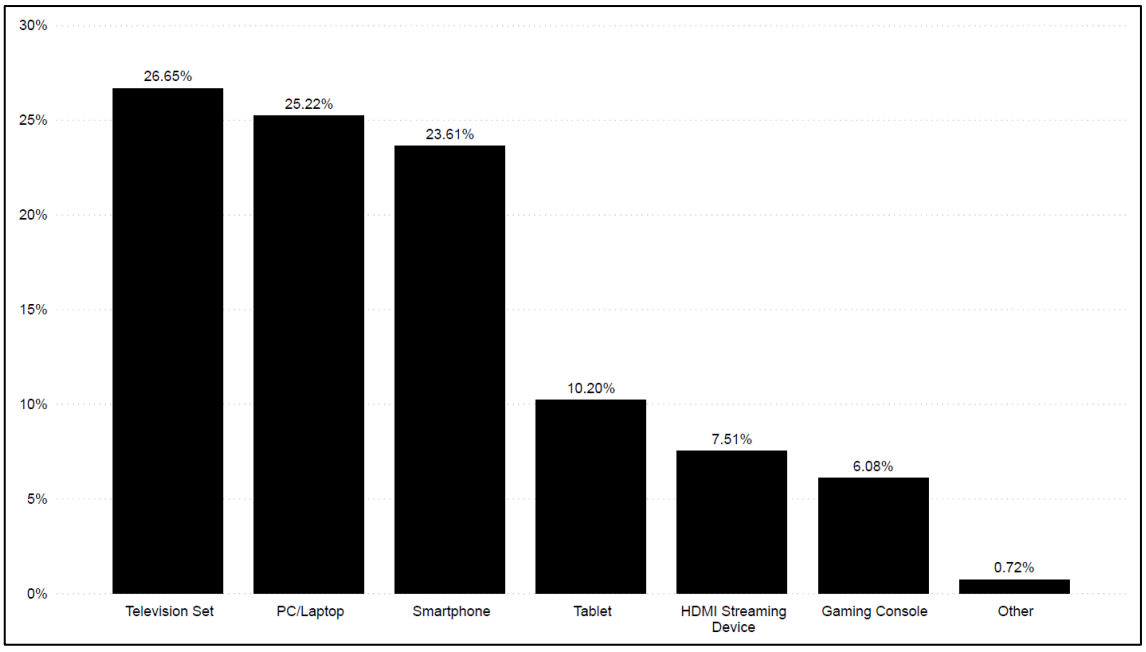


Figure 4-5 - Streaming Devices

4.3 Questionnaire Descriptive Data Results

The questionnaire to the respondents consisted of a 7-point Likert scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree) or reversed, ranging from 7 (Strongly Disagree) to 1 (Strongly Agree) grouped to understand subscriber perception on competitiveness, innovation and satisfaction.

Each construct representing a list of questions in the scale was coded and defined in Table 4-7.

Table 4-7 - Definition of Constructs

Code	Construct
VC	Video-on-demand Subscription Competitiveness
VI	Video-on-demand Subscription Innovation
TVC	Traditional Subscription TV Competitiveness
TVI	Traditional Subscription TV Innovation
TVS	Traditional Subscription TV Satisfaction
VS	Video-on-demand Subscription Satisfaction

Source: Author's construct (2021)

The overall scale descriptive statistics are shown in Table 4-8, presenting the number of respondents (N), mean and Standard Deviation (SD). Video-on-demand competitiveness scored the highest mean at 5.1476, while traditional TV subscription satisfaction scored the lowest at 3.1881.

Table 4-8 - Overall Study Descriptive Statistics

	N	Mean	Standard Deviation (SD)
VC	233	5.1476	1.21109
VI	233	5.0489	1.30655
TVC	233	4.5554	1.30835
TVI	233	4.7107	1.44482
TVS	168	3.1881	1.18911
VS	199	4.9987	.96351

The descriptive statistics for VC (N = 233) presented an overall mean score of 5.1476 (SD = 1.211), showing respondents' positive perception of VC. VC2 presented the highest mean value highlighting that subscribers mostly agree with the statement, and VC5 presented the lowest mean value highlighting that subscribers somewhat agree with the statement, as shown in Table 4-9.

Table 4-9 - Descriptive Statistics for VC Construct

	N	Mean	Standard Deviation (SD)
VC1	233	5.11	1.836
VC2	233	5.48	1.645
VC3	233	5.29	1.764
VC4	233	5.31	1.697
VC5	233	4.55	1.929

The descriptive statistics for VI (N = 233) presented an overall mean score of 5.0489 (SD = 1.306), showing a positive perception of VI from respondents. VI5 presented the highest mean value highlighting that subscribers mostly agreed with the statement, and VI3 presented the lowest mean value highlighting that subscribers somewhat agreed with the statement as shown in Table 4-10.

Table 4-10 - Descriptive Statistics for VI Construct

	N	Mean	Standard Deviation (SD)
VI1	233	4.82	1.806
VI2	233	5.30	1.552
VI3	233	4.30	1.871
VI4	233	5.26	1.647
VI5	233	5.58	1.688

The descriptive statistics for TVC (N = 233) presented an overall mean score of 4.5554 (SD = 1.308), showing a neutral and positive perception of TVC from respondents. TVC4 presented the highest mean value highlighting that subscribers somewhat agreed with the statement, and TVC5 presented the lowest mean value highlighting that subscribers somewhat agreed with the statement, as shown in Table 4-11.

Table 4-11 - Descriptive Statistics for TVC Construct

	N	Mean	Standard Deviation (SD)
TVC1	233	4.66	2.089
TVC2	233	4.39	1.837
TVC3	233	4.44	1.978
TVC4	233	4.93	1.672
TVC5	233	4.36	1.605

The descriptive statistics for TVI (N = 233) presented an overall mean score of 4.7107 (SD = 1.444), showing respondents' positive perception of TVI. TVI4 presented the highest mean value highlighting that subscribers agreed with the statement, and TVI3 presented the lowest mean value highlighting that subscribers somewhat agreed with the statement, as shown in Table 4-12.

Table 4-12 - Descriptive Statistics for TVI Construct

	N	Mean	Standard Deviation (SD)
TVI1	233	4.61	1.993
TVI2	233	4.77	1.706
TVI3	233	4.55	1.845
TVI4	233	5.03	1.765
TVI5	233	4.60	1.745

The descriptive statistics for TVS (N = 168) presented an overall mean score of 3.1881 (SD = 1.189), showing respondents' negative perception of TVs. TVS1 presented the highest mean value but highlighted that subscribers somewhat disagreed with the statement, and TVS5 presented the lowest mean value highlighting that subscribers disagreed with the statement as shown in Table 4-13.

Table 4-13 - Descriptive Statistics for TVS Construct

	N	Mean	Standard Deviation (SD)
TVS1	168	3.52	1.902
TVS2	168	3.50	1.979
TVS3	168	2.87	1.718
TVS4	168	3.40	1.706
TVS5	168	2.65	1.657

The descriptive statistics for VS (N = 199) presented an overall mean score of 4.9987 (SD = 0.963), showing respondents' positive perception of VS. VS1 presented the highest mean value highlighting that subscribers agreed with the statement and VS4 presented the lowest mean value highlighting that subscribers disagreed with the statement as shown in Table 4-14.

Table 4-14 - Descriptive Statistics for VS Construct

	N	Mean	Standard Deviation (SD)
VS1	199	5.89	1.522
VS2	199	4.98	1.633
VS3	199	5.43	1.350
VS4	199	3.69	2.063

4.4 Reliability of Results

The reliability of the study was analysed using Cronbach's Alpha, with the reliability of each construct accepted as reliable and listed in Table 4-15. The Cronbach's Alpha greater than 0.70 is regarded as reliable (Zikmund et al., 2010). To increase reliability, some of the scales were deleted. The results for each construct show its reliability using the Cronbach's alpha ranges from 0.624 (VC) to 0.856 (TVI), while the VS construct still had a Cronbach's alpha above 0.6, which can still be acceptable (Field, 2013).

Table 4-15 - Summary Reliability Analysis for Constructs

Construct	Code	No of items	Cronbach's Alpha before adjustment	Items deleted	Cronbach's Alpha after adjustment
Video-on-demand Subscription Competitiveness	VC	4	.712	1	.758
Video-on-demand Subscription Innovation	VI	5	.818	None	.818
Traditional Subscription TV Competitiveness	TVC	5	.753	None	.753
Traditional Subscription TV Innovation	TVI	5	.856	None	.856
Traditional Subscription TV Satisfaction	TVS	4	.679	1	.724
Video-on-demand Subscription Satisfaction	VS	3	.341	1	.624

The detailed analysis of each construct to derive its reliability is presented in the following sections. The “Corrected item-total Correlation” is used to determine coherence between items in a construct; it must be greater than 0.3, or an item must be deleted to increase reliability (Field, 2013). “Cronbach’s Alpha if Item Deleted” provides values that can be achieved if those items are deleted from the construct, which can be used to increase validity.

4.4.1 *Video-on-Demand Subscription Competitiveness*

Table 4-16 presents the detailed Cronbach’s Alpha for VC interpreted as reliable (α = 0.758) derived from 4 items where 1 item (VC5) was deleted to improve reliability. Other scales could not be deleted as they would reduce the Cronbach’s Alpha, and the “Corrected item-total Correlation” for all items is greater than the minimum of 0.3. The remaining scales were found to be reliable and consistent.

Table 4-16 - Item Total Statistics (VC)

VC	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
VC1	16.08	15.727	.609	.400	.670
VC2	15.71	16.983	.610	.387	.673
VC3	15.89	17.044	.536	.302	.712
VC4	15.88	18.256	.472	.237	.745

The inter-item correlations between the scales were further analysed. Table 4-17 presents the “Inter-Item Correlations” for VC, with all the values greater than 0.3 displaying the correlation between items within the construct.

Table 4-17 - Inter-Item Correlation Matrix (VC)

VC	VC1	VC2	VC3	VC4
VC1	1			
VC2	.552	1		
VC3	.505	.423	1	
VC4	.363	.446	.348	1

4.4.2 *Video-on-Demand Subscription Innovation*

Table 4-18 presents the detailed Cronbach's Alpha for VI interpreted as reliable (α = 0.818) derived from 5 items where no items were deleted to improve reliability. VI1 (α = 0.831) could be deleted to improve reliability, and the improvement would not be significant, while other scales could not be deleted as they would reduce the Cronbach's Alpha. The "Corrected item-total Correlation" for all items is greater than the minimum of 0.3. All the scales were retained and found to be reliable.

Table 4-18 - Item Total Statistics (VI)

VI	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
VI1	20.43	30.453	.449	.241	.831
VI2	19.95	27.471	.787	.632	.735
VI3	20.95	28.075	.560	.363	.800
VI4	19.98	28.000	.687	.547	.761
VI5	19.67	28.765	.611	.425	.782

The inter-item correlations between the scales were further analysed. Table 4-19 presents the "Inter-Item Correlations" for VI, with all the values being greater than 0.3, displaying the correlation between items within the construct.

Table 4-19 - Inter-Item Correlation Matrix (VI)

VI	VI1	VI2	VI3	VI4	VI4
VI1	1				
VI2	.479	1			
VI3	.312	.581	1		
VI4	.329	.698	.516	1	
VI5	.362	.605	.385	.586	1

4.4.3 *Traditional Subscription TV Competitiveness*

Table 4-20 presents the detailed Cronbach's Alpha for TVC interpreted as reliable (α = 0.753) derived from 5 items where no items were deleted to improve reliability. Other scales could not be deleted as they would reduce the Cronbach's Alpha, and the "Corrected item-total Correlation" for all items is greater than the minimum of 0.3. The remaining scales were found to be reliable.

Table 4-20 - Item Total Statistics (TVC)

TVC	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
TVC1	18.12	28.770	.431	.216	.747
TVC2	18.39	28.929	.531	.307	.704
TVC3	18.34	27.777	.533	.351	.704
TVC4	17.85	29.898	.552	.378	.699
TVC5	18.41	30.036	.579	.353	.692

The inter-item correlations between the scales were further analysed. Table 4-21 presents the "Inter-Item Correlations" for TVC. The results show most values being greater than 0.3 and two being below 0.3 but still acceptable, therefore displaying the correlation between items within the construct.

Table 4-21 - Inter-Item Correlation Matrix (TVC)

TVC	TVC1	TVC2	TVC3	TVC4	TVC4
TVC1	1				
TVC2	.410	1			
TVC3	.254	.396	1		
TVC4	.294	.309	.532	1	
TVC5	.352	.436	.412	.489	1

4.4.4 *Traditional Subscription TV Innovation*

Table 4-22 presents the detailed Cronbach's Alpha for TVI interpreted as reliable (α = 0.856) derived from 5 items where no items were deleted to improve reliability. Other scales could not be deleted as they would reduce the Cronbach's Alpha, and the "Corrected item-total Correlation" for all items is greater than the minimum of 0.3. The remaining scales were found to be reliable.

Table 4-22 - Item Total Statistics (TVI)

TVI	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
TVI1	18.94	33.380	.644	.431	.835
TVI2	18.78	35.387	.685	.496	.823
TVI3	19.01	34.164	.678	.492	.824
TVI4	18.52	35.492	.646	.442	.833
TVI5	18.96	34.584	.710	.507	.817

The inter-item correlations between the scales were further analysed. Table 4-23 presents the "Inter-Item Correlations" for VI, with all the values being greater than 0.3, displaying the correlation between items within the construct.

Table 4-23 - Inter-Item Correlation Matrix (TVI)

TVI	TVI1	TVI2	TVI3	TVI4	TVI4
TVI1	1				
TVI2	.475	1			
TVI3	.545	.608	1		
TVI4	.545	.551	.457	1	
TVI5	.542	.592	.592	.561	1

4.4.5 *Traditional Subscription TV Satisfaction*

Table 4-24 presents the detailed Cronbach's Alpha for TVS interpreted as reliable (α = 0.724) derived from 4 items where 1 item (TVS5) was deleted to improve reliability. Other scales could not be deleted as they would reduce the Cronbach's Alpha, and the "Corrected item-total Correlation" for all items is greater than the minimum of 0.3. The remaining scales were found to be reliable.

Table 4-24 - Item Total Statistics (TVS)

TVS	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
TVS1	9.77	17.078	.549	.378	.641
TVS2	9.79	16.429	.560	.389	.634
TVS3	10.42	19.000	.492	.284	.675
TVS4	9.89	19.533	.456	.259	.695

The inter-item correlations between the scales were further analysed. Table 4-25 presents the "Inter-Item Correlations" for VI, with all the values being greater than 0.3, displaying the correlation between items within the construct.

Table 4-25 - Inter-Item Correlation Matrix (TVS)

TVS	TVS1	TVS2	TVS3	TVS4
TVS1	1			
TVS2	.595	1		
TVS3	.323	.361	1	
TVS4	.314	.302	.477	1

4.4.6 *Video-on-Demand Subscription Satisfaction*

Table 4-26 presents the detailed Cronbach's Alpha for VS interpreted as reliable (α = 0.624) derived from 3 items where 1 item (VS4) was deleted to improve reliability. VS2 (α = 0.782) and a "Corrected item-total Correlation of 0.258 which is below the minimum of 0.3 could be deleted to improve reliability, and the improvement would significantly increase the Cronbach's Alpha above the reliability of 0.7. However, the construct would only have 2 items, hence unacceptable (Field, 2013). The remaining scales were found to have acceptable reliability.

Table 4-26 - Item Total Statistics (VS)

VS	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
VS1	10.41	5.455	.546	.430	.354
VS2	11.32	6.795	.258	.067	.782
VS3	10.87	6.211	.539	.422	.395

The inter-item correlations between the scales were further analysed. Table 4-27 presents the "Inter-Item Correlations" for VS. The results show most values were greater than 0.3 and two being below 0.3 at 0.247 and 0.219, which is still acceptable and therefore displays the correlation between items within the construct.

Table 4-27 - Inter-Item Correlation Matrix (VS)

VS	VS1	VS2	VS3
VS1	1		
VS2	.247	1	
VS3	.646	.219	1

Source: Primary Data

4.5 Factor Analysis

SPSS version 27.0.0.0 was used to perform factor analysis for the overall research instrument using each item scale to determine validity. Factor analysis was used to reduce a high number of variables while summarising the variables into different components by grouping variables using their inter-correlation (Field, 2013).

Table 4-28 presents the results for the Kaiser-Meyer-Olkin Measure of Sampling Adequacy for the instrument (KMO = 0.835), which is larger than the required value of 0.6, meaning that it was deemed adequate to continue with factor analysis (Chan & Idris, 2017). The Bartlett's Test of Sphericity results for Approx. Chi-Square = 1478.710, df = 325 and sigma (Sig.) also being less than 0.05.

Table 4-28 - KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.835
Bartlett's Test of Sphericity	Approx. Chi-Square	1478.710
	df	325
	Sig.	.000

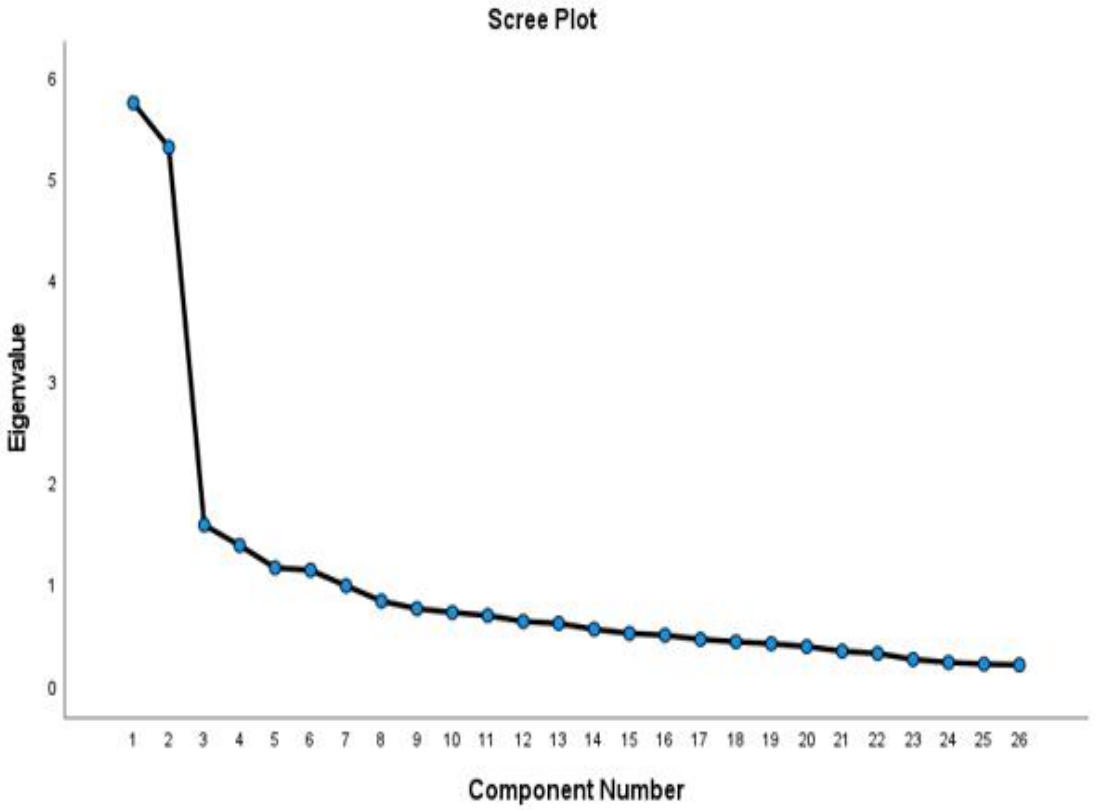
The eigenvalue is used to understand the total variance explained by each factor. Table 4-29 presents 6 components where the eigenvalue is greater than 1 used within the study and cumulatively explains 62.4% of the variance.

The eigenvalue and components are plotted on the Scree Plot as shown in **Error! Reference source not found.** used to determine the final factors. The scree plot presents a break on the fifth component. The study used five components using varimax rotation to interpret the components.

Table 4-29 - Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.726	22.023	22.023	5.726	22.023	22.023
2	5.290	20.347	42.371	5.290	20.347	42.371
3	1.568	6.032	48.403	1.568	6.032	48.403
4	1.368	5.261	53.664	1.368	5.261	53.664
5	1.147	4.413	58.077	1.147	4.413	58.077
6	1.124	4.323	62.400	1.124	4.323	62.400
7	.971	3.733	66.133			
8	.819	3.152	69.285			
9	.744	2.863	72.148			
10	.707	2.720	74.869			
11	.677	2.603	77.472			
12	.619	2.380	79.852			
13	.600	2.307	82.159			
14	.542	2.083	84.242			
15	.501	1.928	86.171			
16	.484	1.860	88.030			
17	.443	1.702	89.733			
18	.419	1.611	91.344			
19	.400	1.537	92.880			
20	.372	1.430	94.310			
21	.326	1.254	95.564			
22	.304	1.168	96.732			
23	.245	.942	97.674			
24	.215	.827	98.501			
25	.199	.765	99.265			
26	.191	.735	100.000			

Extraction Method: Principal Component Analysis.



Using Varimax rotation in Table 4-30 showed 5 components with video-on-demand competitiveness and video-on-demand innovation items loaded and represented in one component. The remaining items correctly allocated to each component represent traditional TV subscription innovation, traditional TV subscription competitiveness, and traditional subscription competitiveness TV subscription satisfaction and video-on-demand satisfaction. Table 4-31 presents the 5 components, which cumulatively explains 57.398% of the variance where component 1 contributed 17.986%, component 2 contributed 13.551%, component 3 contributed 10.355%, component 4 contributed 7.929%, and component 5 contributed 7.578%.

Table 4-30 - Rotated Component Matrix

	Component				
	1	2	3	4	5
VI4	.830				
VI2	.806				
VI5	.772				
VC2	.753				
VI3	.691				
VC1	.662				
VC4	.636				
VC3	.542				
VI1	.484				
TVI4		.801			
TVI1		.780			
TVI5		.719			
TVI3		.662			
TVI2		.634			
TVC2			.745		
TVC5			.609		
TVC3			.526		
TVC1			.488		
TVC4			.479		
TVS2				.767	
TVS1				.704	
TVS3				.566	
TVS4				.481	
VS1					.845
VS3					.813
VS2					.462

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 14 iterations.

Table 4-31 - Total Variance of Five Factors

Component	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	4.676	17.986	17.986
2	3.523	13.551	31.537
3	2.692	10.355	41.892
4	2.061	7.929	49.821
5	1.970	7.578	57.398

Extraction Method: Principal Component Analysis.

4.6 Correlation and Regression Analysis

To test the hypotheses presented in chapter 2, the Pearson Correlation coefficient was performed to understand correlations between related variables. The strength of the relationship between variables is presented using Pearson Correlation (r), where r ranges between -1.00 and 1.00. Where r = 1 indicates a perfect positive correlation between variables if r = 0 indicates no relationship between variables. Finally, r = -1 shows a perfect negative correlation between variables. The interpretation of the correlation size and its related correlation strength is shown in Table 4-32 (Cohen, 1988).

Table 4-32 - Correlation Size

Size of correlation (r)	Interpretation of correlation strength
r ≥ .1 and r < 0.3	Small
r ≥ .3 and r < 0.5	Medium
r ≥ .5	Large

Source: Cohen (1988)

The sample was tested for reliability, validity and correlation coefficient. The summary for Pearson correlation (r) is presented in Table 4-33, generated from SPSS, presenting the relationships between variables within the study.

Table 4-33 - Pearson Correlation Matrix

	VC	VI	VS	TVI	TVC	TVS
VC	1					
VI	.754**	1				
VS	.378**	.349**	1			
TVI	.161*	.105	-.090	1		
TVC	-.016	-.020	-.165*	.662**	1	
TVS	-.264**	-.309**	-.241**	.375**	.482**	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

The strength of the relationship between dependent and independent variables was further tested using regression analysis on SPSS with the assumption that the sample is normally distributed. Simple linear regression was used in assessing the strength of the relationship between a dependant variable and a single independent variable, while multiple linear regression was used in assessing the strength of the relationship between a dependant variable and multiple independent variables.

Three regression models were generated to ensure that all variables with the perceived relationships were tested.

Multiple Regression Model 1

$$VS = \beta_0 + \beta_1(VC) + \beta_2(VI)$$

β_0 as the regression constant as the value for VS is there is no value for VC and VI

β_1 as the beta constant for VC

β_2 as the beta constant for VI

Simple Regression Model 2

$$TVC = \beta_0 + \beta_1(TVI)$$

β_0 as the regression constant as the value for TVC is there is no value for TVI

β_1 as the beta constant for TVI

Multiple Regression Model 3

$$TVS = \beta_0 + \beta_1(VS) + \beta_2(TVC)$$

β_0 as the regression constant as the value for TVS is there is no value for VS and TVC

β_1 as the beta constant for VS

β_2 as the beta constant for TVC

The following study hypotheses were tested using the regression models generated from the sample data (N = 233).

H1a: Increasing streaming services competitiveness will positively influence video-on-demand services adoption and subscriber satisfaction.

H1b: Introduction of new streaming technology innovations positively influences video-on-demand services adoption and subscriber satisfaction.

The correlation between video-on-demand competitiveness and video-on-demand satisfaction was positive ($r = .378$, $p < .001$). This correlation analysis supports H1a that video-on-demand competitiveness has a positive relationship with video-on-demand satisfaction experienced by its subscribers.

The correlation between video-on-demand innovation and video-on-demand satisfaction was positive ($r = .349$, $p < .001$). This correlation analysis supports H1b that video-on-demand innovation has a positive relationship with video-on-demand satisfaction experienced by its subscribers.

The regression analysis of the dependent variable video-on-demand satisfaction was based on predicting video-on-demand competitiveness and innovation to further test the hypotheses H1a and H1b. The independent variables significantly predicted video-on-demand satisfaction, $F(2.196) = 18.937$ and showing that

video-on-demand competitiveness has a significant direct influence on video-on-demand satisfaction (β = .285, p = 0.003, p < 0.01) and video-on-demand innovation has a significant direct influence on video-on-demand satisfaction (β = .186, p = 0.037, p < 0.05). R^2 = .162 for this model depicts that the model is explaining 16.2% of the variance on video-on-demand satisfaction.

Table 4-34 presents the regression analysis model 1 summary, ANOVA[a] and Coefficients[a].

Table 4-34 - Regression Analysis Model 1

Hypothesis	Regression Weights	Beta Coefficient	R^2	F (2,196)	t-value	P-value	Status
H1a	VC → VS	.285	.162	18.937	3.052	.003	Supported
H1b	VI → VS	.186	.162	18.937	2.097	.037	Supported

H2a: Increasing digital transformation and traditional broadcasting innovation will result in an increase in traditional subscription TV services competitiveness and subscriber retention.

The correlation between traditional TV subscription innovation and traditional TV subscription competitiveness was positive (r = .662, p < .001). This correlation analysis supports H2a that traditional TV subscription innovation positively correlates with traditional TV subscription competitiveness experienced by their subscribers.

The regression analysis of the dependent variable traditional TV subscription competitiveness was based on the predicting variable traditional TV subscription innovation to further test hypothesis H2a. The independent variables significantly predicted traditional TV subscription competitiveness, F (1.231) = 180.267, p < 0.001 showing that traditional TV subscription innovation plays a role in shaping traditional TV subscription competitiveness (β = .600, p = 0.000, p < 0.001) depicting a direct positive effect from traditional TV subscription innovation. R^2 = .438 for this model, which depicts that the model is explaining 43.8% of the variance in traditional TV subscription competitiveness

Table 4-35 presents the regression analysis model 2 summary, ANOVA[a] and Coefficients[a].

Table 4-35 - Regression Analysis Model 2

Hypothesis	Regression Weights	Beta Coefficient	R^2	F	P-value	Status
H2a	TVI → TVC	.600	.438	180.267	.000	Supported

H3a: Increasing streaming satisfaction and subscriber switching will result in a decrease in the traditional subscription TV services subscriber base.

H3b: Increasing traditional subscription TV service competitiveness and retention strategies will result in an increase in the traditional subscription TV services subscriber base.

The correlation between video-on-demand satisfaction and traditional TV subscription satisfaction was negative ($r = -.241$, $p < .001$). This correlation analysis supports H3a and that video-on-demand satisfaction negatively correlates with traditional TV subscription satisfaction experienced by their subscribers.

The correlation between traditional TV subscription competitiveness and traditional TV subscription satisfaction was positive ($r = .482$, $p < .001$). This correlation analysis supports H3b that traditional TV subscription competitiveness positively correlates with traditional TV subscription satisfaction experienced by their subscribers.

The regression analysis of the dependent variable traditional TV subscription satisfaction was based on predicting video-on-demand satisfaction and traditional TV subscription competitiveness to further test the hypotheses H3a and H3b. The two independent variables significantly predicted traditional TV subscription satisfaction, $F (2.132) = 26.900$ and showing that and increase in video-on-demand satisfaction would lead to a decrease in traditional subscription TV satisfaction ($\beta = -.236$, $p = 0.009$, $p < 0.01$) and traditional subscription TV competitiveness has a significant direct influence on traditional subscription TV

satisfaction (β = .562, p = 0.000, p < 0.001). R^2 = .291 for this model, which depicts that the model is explaining 29.1% of the variance on video-on-demand satisfaction.

Table 4-36 presents the regression analysis model 3 summary, ANOVA[a] and Coefficients[a].

Table 4-36 - Regression Analysis Model 3

Hypothesis	Regression Weights	Beta Coefficient	R^2	F (2,131)	t-value	P-value	Status
H3a	VS → TVS	-.236	.291	26.900	-2.644	.009	Supported
H3b	TVC → TVS	.562	.291	26.900	6.564	.000	Supported

4.7 Conclusion

This chapter focused on the results received from 297 respondents with 233 complete responses used in the study, characterised by different individual and household factors. The item scales were analysed using descriptive statistics to test potential relationships between items and provide basic information. Reliability and validity for each construct were assessed and presented to ensure that respondents' data was sound and met the integrity standards.

Correlation analysis was also completed to test if variables have any relationships and how a change in a variable is likely to impact the other. Regression analysis was also completed to predict the dependent variables and explained by predictors.

The next chapter discusses the study findings in relation to the reviewed literature.

CHAPTER 5. DISCUSSION OF THE FINDINGS

5.1 Introduction

The previous chapter analysed and presented the results received from the study respondents. This chapter focuses on the discussion of the study's results.

This chapter further addresses the research objectives presented in chapter 1 and interprets the results to formulate the study's findings. The proposed hypotheses were also interpreted to conclude in relation to the academic literature presented to formulate the study.

5.2 Discussion

The study's main objective was to understand if there is any impact of the introduction of video-on-demand services on the traditional subscription TV service subscriber base in South Africa. The conceptual framework of the study proposed hypotheses tested in the previous chapter, which were used to guide the discussion of the results.

The study's objectives were based on three themes presented in the following sections.

5.2.1 *Media consumption, subscriber behaviour, media content expectations, streaming technology innovation and switching*

The research intended to establish the drivers that entice subscribers to switch from traditional subscription TV services to streaming video-on-demand services. The study intended to investigate both the satisfaction reasons for switching and the technological innovation that drives subscribers to switch to video-on-demand services.

The study shows that the way subscribers consume content, subscribers changing needs and behaviour, and their content expectations are some of the

factors exploited by streaming services to provide competitive products and services to satisfy the ever-changing needs of the subscribers. Subscribers rated competitiveness as the highest reason in Table 4-8 to switch to video-on-demand services.

The proposed hypothesis states that:

> *H1a: Increasing streaming services competitiveness will positively influence video-on-demand services adoption and subscriber satisfaction.*

The assumption that the relationship between streaming services competitiveness introduced by video-on-demand service providers influences the decision-making by subscribers to switch and adopt new services in hypothesis H1a is supported. This is supported by Baccarne et al. (2013) that traditional TV subscription services are losing their monopoly as new services are introduced and affecting subscriber expectations and how they consume content which will continue to be a challenge for years to come. The finding requires that traditional TV subscription services reinvent themselves by transforming their products and services to remain competitive.

The study shows that subscribers of video-on-demand services perceived the services as very competitive, as shown by the highest mean of 5.1476 (SD = 1.211) (Table 4-8). This finding is derived from components that subscribers strongly agree that they have access to a massive library of content from various genres to select their preferred content. Various studies, including Davis and Zboralska (2017) and Chen (2017), agreed with these findings that subscribers have access to more content than they had before due to disruptions in the media and entertainment industry.

Subscribers perceived pricing as one factor that influences their decision on switching, where video-on-demand services are perceived to be competitively priced for the value they receive (mean = 5.31; SD = 1.697; Table 4-9). Collico-Savio (2013) also investigated video-on-demand pricing in different markets, supporting the study that video-on-demand service providers adjust to external

factors in the regions they operate, such as South Africa, where they choose the right price to be competitive and provide value with a long break-even point.

The study results also shows that video-on-demand competitiveness changes subscriber behaviour as they are now binge-watching content (mean = 5.29; SD = 1.764; Table 4-9) and consume content where they are (mean = 5.11; SD = 1.836; Table 4-9). This is because subscribers are no longer limited by program scheduling and are watching more than one episode at a time to catch up, relax or learn at their preferred time and location, as mentioned by Pradsmadji and Irwansyah (2020) and Rubenking et al. (2018), in their respective studies to understand subscribers behaviour in video-on-demand devices.

Some subscribers highlighted that they have to subscribe to multiple video-on-demand services to access all their favourite content (mean = 4.55, SD = 1.929; Table 4-9), this scored the lowest for competitiveness as each video-on-demand service is required to differentiate itself from the other and therefore fragmenting or offering exclusive content requiring subscribers to pay more for exclusive content. Akyildiz (2019) corroborated this finding with subscribers having multiple subscriptions within their households.

The study further presented the following hypothesis driven by innovation in the media and entertainment industry:

> *H1b: Introduction of new streaming technology innovations positively influences video-on-demand services adoption and subscriber satisfaction.*

Technological disruption in the media and entertainment industry introduces streaming technologies that are changing the way subscribers consume content. This is highlighted in hypothesis H1b, where the study supports the statement that streaming technology innovation enhances subscribers' satisfaction and increases the adoption of video-on-demand services, whereas Duhamel (2021) provided a similar conclusion on innovative trends in content streaming.

The study results revealed that video-on-demand innovativeness (mean = 5.05; SD = 1.307; Table 4-8) was the second-highest where subscribers highlighted this as part of why they are adopting video-on-demand services.

The highest innovation in video-on-demand identified by subscribers is their ability to consume content on multiple devices they own (mean = 5.58; SD = 1.688; Table 4-10). The study further shows that whilst 26.65% of the subscribers still use a television set to stream content, they are increasingly streaming using other devices such as laptops, smartphones and tablets, aligning with the results that they are using multiple devices. This is further highlighted by the high number of internet connections where 48.5% of subscribers have access to a stable fibre connection to stream high quality on television sets and 49.2% combination of other mobile connections including smartphone, wireless, LTE and 5G data allowing them to stream from other locations.

Video-on-demand innovation delivered personalised content to subscribers (mean = 5.30; SD = 1.552; Table 4-10) where subscribers received content where the service providers were curating personalised content recommendations based on what they previously viewed and liked increasing engagement and loyalty with the service.

Content distribution across the world has been left to specific businesses within the country. Innovation in video-on-demand services allowed subscribers to search and explore new genres and titles that were previously unavailable to them. The finding highlights that they can now search and content across regions (mean = 5.26; SD = 1.647; Table 4-10). Subscribers now have a wide variety of content to explore, including genres they were never exposed to through traditional subscription TV.

Subscribers of video-on-demand services experienced that video-on-demand services release all content as soon as it is available for them to consume (mean = 4.82; SD = 1.806; Table 4-10). This further reiterates this study's findings that subscribers are binge-watching content as soon as it is available to them. The study by Matrix (2014) also concluded that video-on-demand services such as

Netflix released content such as “Arrested Development” or “House of Cards”, the subscribers consumed multiple episodes within a few hours of being released.

The subscribers remained neutral about interacting with video-on-demand services to provide feedback that could improve their service experience (mean = 4.30; SD = 1.81; Table 4-10). However, this was contrary to the study findings by Park and Kwon (2019). They found that subscribers provide video-on-demand services feedback, likes, reviews, and comments used to improve services and content preferred by their subscribers.

5.2.2 *Digital transformation and broadcasting innovation*

This objective sought to investigate digital transformation and innovations in traditional subscription TV services that the service providers use to keep subscribers within the broadcasting services.

It emerged that traditional subscription TV services are driving innovations in the broadcasting industry (mean = 4.711; SD = 1.445), which can be attributed to the competitive traditional subscription TV services (mean = 4.555; SD = 1.308) indicated in Table 4-8. This is supported in the literature, where Ruether (2021) attributes increased value to subscribers is attributed to traditional subscription TV services digitally transforming and introducing innovative products and ultimately maintaining their competitiveness in the media and entertainment industry.

The following hypothesis was proposed:

> *H2a: Increasing digital transformation and traditional broadcasting innovation will result in an increase in traditional subscription TV services competitiveness and subscriber retention*

As broadcasting services are digitally transforming and becoming innovative will result in an increase in traditional subscription TV service competitiveness and subscriber retention, as shown in hypothesis H2a is supported by the study. Literature by van den Broeck et al. (2008) further argues that digitisation of

traditional subscription TV media delivers a new promise with digital TV enabling subscribers to control how they consume content as their habits are also changing. The study, therefore, confirms that there is a relationship between traditional broadcasting innovation and the competitiveness of traditional subscription TV services that increases subscriber retention.

Innovation in traditional subscription TV services allows subscribers to stream live TV on multiple screens, which is the highest innovation (mean = 5.03; SD = 1.765; Table 4-12) where subscribers are receiving added value to their subscription. Subscribers further have a streaming service such as an over-the-top or video-on-demand service attached to their traditional subscription TV service (mean = 4.61; SD = 1.993; Table 4-12) where they can use their existing internet connection and streaming devices to consume their content not restricted to their television at home. This emerges as one of the main innovation that traditional subscription TV services are using to compete with video-on-demand services as it moved the consumption of TV from the living room and utilise the same technology that gives the video-on-demand serves an edge, aligned to the Kim et al. (2016) view on how the two services use technology to compete for subscribers.

It also emerged that subscribers of traditional subscription TV services rely on the service to access local content that the entire household can relate to and enjoy (mean = 4.77; SD = 1.706; Table 4-12). This was grounded on the assumption that traditional subscription TV services are investing and creating content and packages for their target market based on their subscribers' available and focused demographics.

Subscribers experience the service transformation leading to competitiveness, whereas traditional subscription TV service invests in reality shows, exclusive concerts and acquiring rights to sporting events (mean = 4.66; SD = 2.089; Table 4-11). Subscribers further highlighted the live delivery of content compared to video-on-demand because subscribers are socially engaging with one another as they consume the same content either in the same household or across the country (mean = 4.39; 1.837; Table 4-11). This concept is seen in South Africa

with Sunday traditional TV, where subscribers follow their favourite content throughout the evening and engage one another using social media hashtags (#) highlighted in literature by Nathan et al. (2008), introducing a social element in viewing television content.

Whilst subscribers were neutral about the customer service they received in customer service channels that included both physical locations and digital systems (mean = 4.36; SD = 1.605; Table 4-11), this is seen as a competitive advantage compared to video-on-demand services which international service providers predominantly deliver with support outside from the country introducing some barriers.

Traditional subscription services are also investing in their devices to include advanced functionalities that enable the subscribers to not only view traditional linear content but include streaming services (mean = 4.60; SD = 1.745; Table 4-12) and able to consolidate content from various streaming services and creators using a single device and a single subscription (mean = 4.77; SD = 1.706; Table 4-12). This finding agrees with Doyle (2016) that content delivery is transforming into multiplatform distribution with the same content available from multiple mediums and subscriptions.

5.2.3 *Subscriber switching, retention strategies and traditional subscription TV services*

In this theme, the objective was to investigate subscriber satisfaction between both traditional subscription TV services and video-on-demand services that caused subscribers to switch between the services. The objective also included determining what the traditional subscription TV services are doing to retain their subscribers.

There is a perception that the introduction of video-on-demand services in South Africa leads to subscribers switching, impacting the performance of traditional subscription TV services, which are seeing a reduction in their subscriber base; therefore, the following hypothesis was proposed:

H3a: Increasing streaming satisfaction and subscriber switching will result in a decrease in the traditional subscription TV services subscriber base.

As proposed, the increasing subscriber satisfaction and subscriber switching to streaming services impacts and decreases the traditional subscription TV service subscriber base. Hypothesis H3a is supported. Overall, subscribers were satisfied with the services they received from video-on-demand services (mean = 4.99; SD = 0.964; Table 4-8) that they are adopting and subscribing to the services, as shown in other studies across other regions.

It emerged that the opposite is unlikely as subscribers are not willing to cancel their video-on-demand services and switch to traditional subscription TV services (mean = 5.89; SD = 1.522; Table 4-14). The study confirms that subscribers are satisfied with video-on-demand services and their value, corroborated by various other studies, including Ayten and Bulat (2019). Ayten and Bulat (2019) further labelled these subscribers as cord-nevers who will never subscribe to traditional subscription TV services, posing a higher risk to traditional subscription TV services as they will never subscribe in future which is predominately the younger generation.

While almost 58% of the respondents had video-on-demand and traditional subscription services, an additional 28% only had a video-on-demand subscription, almost double those who only had traditional subscription TV services at almost 15%. This shows that subscribers are taking up more video-on-demand services to satisfy their need for on-demand content streaming.

It also emerged that most of the subscribers who are subscribed to more video-on-demand services compared to traditional subscription TV services are balanced between the 21-29 and 30-39 age group whilst the 40-49 age group are balanced between both services and the older age group are subscribed to traditional subscription services as shown in Table 4-3. This may be attributed to the younger generation easily adapting to innovation and technology, as shown in the study by Ayten and Bulat (2019) that are not bound to a single location to consume content.

Video-on-demand services are seen to be using content as a differentiator by providing specific exclusive content; subscribers are willing to subscribe to more than one service provider to gain access to more content (mean = 5.43; SD = 1.350; Table 4-14), this might also increase the cost of subscription aligned to SVOD stacking mentioned by Akyildiz (2019). The effect of cost with multiple subscriptions, subscribers are seen to be downgrading their traditional subscription TV services to cheaper and lower packages (mean = 3.50; SD = 1.979; Table 4-13) to still have access to some of the content delivered, such as live sport in concept named cord-shaving discussed by Kim et al. (2016) and Nielsen (2016).

The subscribers that subscribed to video-on-demand highlighted that they are not planning to subscribe to traditional subscription TV services to complement their content (mean = 3.69; SD = 2.063), this can also be seen that they are satisfied and happy with the services they receive from video-on-demand service providers (mean = 4.98; SD = 1.633) as presented in Table 4-14. This finding confirms the finding from Rubenking et al. (2018) that video-on-demand services fulfil all the new behavioural needs of the subscribers.

It also emerged that subscribers are cancelling their traditional subscription services and switching to video-on-demand services due to many reasons identified throughout the study (mean = 3.52, SD = 1.902; Table 4-13) in a concept called cord-cutting discussed by Park and Kwon (2019) where subscribers are becoming digitally savvy, using smart devices, have access to a stable internet, being part of larger households requiring multiple screens and re-evaluating their finances.

To understand the role that traditional subscription TV services play in the management of their subscriber base, the following hypothesis was proposed:

> *H3b: Increasing traditional subscription TV service competitiveness and retention strategies will result in an increase in the traditional subscription TV services subscriber base.*

The study supports the assumption that when traditional subscription TV services increase, their competitiveness and investment in retention strategies could increase their subscriber base per hypothesis H3by. This finding further agrees with van Eeden and Chow (2018) that for subscribers to remain loyal to a service provider, it does not only depend on the product or service they provide rather include the overall customer experience, which includes loyalty benefits, improved communication, seeking and implementing feedback driving engagement presented in retention strategies. This study further confirms a relationship between successful loyalty and retention strategies and maintaining and increasing the traditional subscription TV service subscriber base.

The study further showed that subscribers were not willing to upgrade their subscriptions to higher packages (mean = 2.87, SD = 1.718; Table 4-13). This led to the perceived higher value received by subscribers from video-on-demand services which they would rather switch to. This is further evident in subscribers not willing to keep an active traditional subscription TV service and complement it with a video-on-demand service (mean = 2.65; SD = 1.657; Table 4-13).

Subscribers did not find the loyalty program developed by traditional subscription TV services to meet their requirements to be loyal subscribers (mean = 3.40, SD = 1.706; Table 4-13), whilst the subscribers agree that traditional subscription services can implement innovative strategies that will make them competitive and use the same technology used by video-on-demand services to deliver the right content to them.

It was evident in the study that subscribers are still subscribed to traditional subscription TV services, with almost 58% of subscribers subscribed to both services and almost 15% subscribed to only traditional subscription TV services resulting in a total of 73% subscribers. An increase in the visibility of the loyalty program and fast-tracking the implementation of innovative technology in the industry will lead to an increase in subscribers.

A properly implemented retention strategy facilitates an enhanced customer experience that keeps subscribers loyal, increasing engagement and feedback,

ultimately ensuring subscribers are not switching to different services and reducing subscriber churn, as discussed by Burez and Van den Poel (2007).

5.3 Conclusion

This chapter discussed the study's findings based on existing literature on traditional subscription TV and video-on-demand services. The discussion was formulated from the themes that informed the study objectives and the proposed hypotheses related to competitiveness, innovation and digital transformation in the media and entertainment industry and how it is perceived by subscribers as their needs and behaviour are changing leading to switching between traditional TV subscription services and video-on-demand services.

The following chapter will draw the study's conclusion, provide recommendations, highlight the study's limitations, and provide suggestions for future research.

CHAPTER 6. CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

The previous chapter discussed the study's results and formulated the findings based on the literature used to formulate the objectives.

This chapter presents the conclusion to the study's objectives, recommendations for traditional subscription TV services in South Africa derived from the study, limitations of the study, and provides suggestions for future research.

6.2 Conclusions Related to Research Objectives

The study's main objective was to understand whether the introduction of video-on-demand services in South Africa impacts the subscriber base of traditional subscription TV services, which was identified in chapter 1. This objective was broken down into the following research objectives addressed throughout the study.

Research Objective 1*: Identify reasons for subscribers switching from traditional subscriptions TV services to video-on-demand services.*

Subscriber media perception and behaviour are changing subscriber satisfaction requiring subscribers to investigate the value they may receive from a new streaming media service provider compared to their current traditional subscription TV services. The competitiveness of video-on-demand services as summarised in Table 4-8 (VC; mean = 5.1476; SD = 1.211) highlighted some of the reasons that subscribers are switching to video-on-demand services:

- The study identified that subscribers switching to video-on-demand services is how content is delivered to subscribers. Fundamentally, traditional subscription TV services deliver content using one-directional broadcasting following a schedule of programming that subscribers need to make sure they are watching simultaneously. The new behaviours

identified by the study mentioned that subscribers want to consume content based on their time allocation.

- Subscribers of video-on-demand services found that they were no longer bound to watch content only at home. Subscribers highlighted that they have access to devices that enable them to watch content from any location.
- The cost of traditional subscription services increases without any perceived added value from subscribers. They highlighted that video-on-demand services are cheaper and offer them multiple screens where they can also be shared with family members.
- While traditional subscription TV services provide access to many channels and genres, the broadcaster selected and scheduled the content provided to a large library of content from across multiple regions provided by video-on-demand services allowing subscribers to binge-watch their favourite content without any repeats provided by traditional subscription TV services.

There might be many other personal reasons that subscribers did not identify as they seek value for money, specific and niche needs and different behaviour.

Research Objective 2: *Identify key competitive trends and innovations driving the adoption of video-on-demand services.*

Video-on-demand services invest in innovation to ensure they are competitive in an industry dominated by traditional subscription TV services to attract subscribers. Subscribers agree that innovation in the video-on-demand services is enabling them to adopt the services as presented in Table 4-8 (VI; mean = 5.0489; SD = 1.307) with these key innovations:

- The trends introduced by the fourth industrial revolution, such as cloud computing, internet-of-things, high connectivity, big data and others, are enabling disruption in the media and entertainment industry. Netflix and other video-on-demand services were launched in South Africa easily as

they only require an expansion of pre-existing technologies compared to a launch of a new traditional subscription TV service.

- Video-on-demand services were able to release content to their subscribers on the same platform internationally at the same time. Subscribers highlighted this as a major advantage in South Africa as they were used to receiving content much later than other regions.
- Subscribers could easily subscribe to video-on-demand services as they utilise technologies that can integrate into the devices they already own, such as laptops, PCs, smartphones and tablets. Subscribers were required to install an application and provide payment details to be fully operational within minutes.
- Subscribers stated that they had an added advantage in video-on-demand services as they could easily search and explore new content they never had access to. The service providers used advanced analytics to analyse what they watched, liked and commented on to deliver personally curated content suggestions.

Research Objective 3: *Identify digital transformation and innovations implemented by the traditional subscription TV services to enhance their services.*

Traditional subscription TV services are transforming their products and services, implementing innovation in broadcasting to effectively compete with video-on-demand services to ensure subscribers are getting the best service. There are innovations introduced traditional subscription TV services presented in Table 4-8 (TVI; mean = 4.107; SD = 1.445):

- The study found that traditional subscription services transform their products, change their business models, and introduce over-the-top services that allow subscribers to consume broadcasting content using multiple devices and streaming using the internet. The subscribers highlighted this as a positive where it removed the limitation of only consuming TV content from their home even if it is the same scheduled

content. This also added a benefit where a household can watch multiple screens without fighting for the remote in the living room.

- Subscribers also highlighted that traditional subscription TV services invested in next-generation set-top boxes that enable subscribers to access advanced functionalities to catch up on content they missed. At the same time, they were not available whilst offering full video-on-demand services at no extra charge.
- The study further found that traditional subscriptions were launching streaming-only packages of their broadcasting service and taking on video-on-demand services by launching their video-on-demand service that will complement their products or stand-alone for new subscribers, which can be converted later to traditional subscription services.
- Traditional subscription TV services also presented a view that they can consolidate content from all service providers to facilitate a single payment from subscribers to all the broadcasting and streaming services they are interested in.

Research Objective 4: *Evaluate the impact of subscriber switching on the subscription base of traditional subscription TV services.*

The study identified the main impact of subscribers switching to video-on-demand services: traditional subscription TV services are not acquiring large numbers of subscribers and are losing subscribers. The impact is summarised in subscriber satisfaction in video-on-demand service as highlighted in Table 4-8 (VS; mean = 4.9987; SD = 0.964) and categorised through the following categories:

- The study identified that subscribers are “cord-cutting”; these subscribers are disconnecting and switching their services to video-on-demand where traditional subscription services subscriber base is impacted. Subscribers in South Africa are finding sources of alternative subscriptions as their needs are no longer bound by what is available. They have access to new genres and use new technology and international content to select the content that satisfies a niche taste or requirement.

- The study further identified that subscribers are “cord-shaving”, where subscribers are downgrading from higher to lower traditional subscription TV services packages. The impact of these subscribers to traditional subscription TV services is not the reduction of subscriber number but rather the decrease in revenue generated by the service providers. The subscribers are stacking their services as they still require traditional subscription services such as live sports and reality TV. They also need video-on-demand services to have access to both worlds.
- Lastly, the study identified that subscribers are “cord-nevers”, not subscribing to traditional subscription TV services. This finding can have the largest impact on traditional subscription TV services that do not acquire new subscribers. This category of subscribers relates mostly to the younger generation who have been introduced to technology at a younger age. They have access to multiple streaming devices daily and are not limited to one location.

Research Objective 5: *Evaluate the effectiveness of retention strategies against the perceived benefits of video-on-demand.*

Traditional subscription TV services are implementing strategies to retain and reduce subscriber churn. Subscribers increase their loyalty to a service provider based on their experience with the service and the perceived benefits they get above what they paid for. Subscribers of traditional subscription TV services rated their satisfaction very low, as highlighted in Table 4-8 (TVS; mean = 3.188; SD = 1.189) with the following retention strategies identified by the study to increase subscriber satisfaction:

- Traditional subscription TV services transform their business processes and services, leading to an enhanced customer experience. Subscribers remain loyal to a service that ensures that every interaction places the subscriber's interest ahead, either resolving issues or acquiring new services. The study highlights that traditional subscription services provide localised support and contact centres, especially in South Africa, where subscribers get personalised, face-to-face interaction to resolve any

issues also implement digital processes to engage with the service provider.

- Loyalty programmes are introduced to ensure that subscribers are offered access to exclusive rewards such as vouchers, entries to competitions, access to events to keep them connected. Reward tiers motivate subscribers to be subscribed for longer periods. However, subscribers highlighted that they were not familiar with traditional subscription services loyalty programs.

6.3 Recommendations

The following recommendations are presented to be implemented by traditional subscription TV services to ensure they meet the need of the subscribers and retain them.

6.3.1 *Unbundle Subscription Packages*

Traditional subscription TV services further break down their packages based on a specific genre such as music, sports, movies or others, enabling subscribers to select packages based on their preferences. Further unbundling, the service provider can create basic packages and create add-on packages that subscribers will choose based on their interests.

6.3.2 *Innovate and Create Over-The-Top Services*

The traditional subscription services invest in innovating and creating an over-the-top standalone service that delivers the same product packages accessed only through an online streaming platform. Subscribers can subscribe without the need to buy set-top boxes and satellite systems to connect, rather use the devices they already have.

6.3.3 *Collaborate and Consolidate Content between Service Providers*

Subscribers require multiple subscriptions from different streaming content providers and movie and TV series production studios. The traditional subscription TV service must collaborate and consolidate content to be the main content providers in the country with a single subscription fee.

6.3.4 *Collaborate with Internet Service Providers*

The price of internet access in South Africa is dropping but is still not affordable to lower-income subscribers. The traditional subscription TV service can collaborate with internet service providers and create packages that grant access to both the internet and content at affordable prices.

6.3.5 *Invest in Big Data Analytics for Decision Making*

The traditional subscription TV service becomes a data analytics-driven organisation where data is also treated as a digital asset used daily to make decisions. Enable the culture of using data as a way of decision making from every business unit not only limited to the executive level. Enable subscriber contact centre agent to provide subscribers with the best advice and solutions by providing a single complete view of the subscriber.

6.3.6 *Create a Loyalty Program that Builds Value*

Increasing customer loyalty requires the traditional subscription TV service to offer its subscribers loyalty benefits such as personalised offers to current subscribers and those who may have downgraded or are about to switch off. Provide a tiered approach to loyalty provide better loyalty offers as the subscriber engages with the organisation's products and services. The end goal for a great loyalty program is to be able to cross-sell other services provided by the organisation, therefore, increasing the customer lifetime value and the average revenue per subscriber

6.4 Limitations

The sample presented in the study consisted of technologically surveyed respondents who had access to good quality internet, which could have introduced bias in the study's findings.

The study collected data at a specific time to analyse the subscriber expectations and satisfaction, which could change over time if the same instrument was still used.

6.5 Suggestions for Future Research

There are areas not covered by this study that allow future research.

1. The impact of subscriber switching is investigated from external video-on-demand services. It will be interesting to understand the impact of subscribers switching between traditional subscription TV services to video-on-demand services within the same organisation. Business units within the same organisation will be competing or cannibalising, therefore impacting organisation revenue.
2. The effects of piracy in the media and entertainment industry. What are the reasons individuals pirate content compared to subscribing to a subscription service?
3. To investigate the impact introduced by new-generation free content creators. There is an increase in content creators using platforms such as YouTube to create channels that compete with broadcasting services for subscriber views and advertising spending.
4. The social impact of the adoption of video-on-demand services on families where households utilise multiple screens and smart devices. Streaming content on individual devices results in fragmented families as they do not spend enough time together.

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APPENDIX A – Participant's Information Sheet

Good day,

My name is Fanna Njomo, a Master's in Digital Business student registered with the Faculty of Commerce, Law and Management at the University of the Witwatersrand. To fulfil the requirements of the master's program, I am undertaking a research report project to investigate the perceived impact of video-on-demand services adoption on subscription TV services in South Africa under the supervision of Dr Fanny Saruchera. This research project aims to investigate why subscribers are switching to video-on-demand services such as Netflix and others and its impact on traditional subscriptions services in South Africa.

As part of the project, I would like to invite you to participate in completing an online survey questionnaire. The questionnaire consists of approximately 20 questions and will take between 5 and 10 minutes to complete. Responses will be recorded and stored anonymously for high confidentiality. All responses will be anonymous. Please answer the questionnaire completely and honestly

The online survey can be found at:
https://wits.eu.qualtrics.com/jfe/form/SV_eh5wsdPpT7Ua9me

If you request any additional information about the study, contact the researcher on the details provided below. If you have any concerns or complaints regarding the ethical procedures of this study, contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0) 11 717 1408 or email hrecnon-medical@wits.ac.za. Clicking on the link and continuing, you consent to participate in the study's survey.

Thank you,

Researcher:
Fanna Njomo, 2359136@students.wits.ac.za, 082 551 4160
Supervisor:
Dr Fanny Saruchera, fanny.saruchera@wits.ac.za

APPENDIX B – Research Instrument

SCREENING QUESTION

Q1: Do you have an active video-on-demand subscription?

○ Yes ○ No

Q2: Do you have an active traditional TV subscription such as DStv?

○ Yes ○ No

If both screening questions are No, ask if they will consider any of the services in future and exit the survey

SECTION 1: PERSONAL INFORMATION

Q3: Select your Gender

◉ Male ○ Femal ○ Prefer not to answer

Q4: What is your age?

○ 21-29 ○ 30-39 ○ 40-49 ○ 50-59 ○ 60-69 ○ 70+

Q5: What is your employment status?

○ Student ○ Unemployed ○ Employed ○ Self-employed
○ Retired ○ Other _____

Q6: What is your marital status?

○ Single ○ Married ○ Separated/Divorced
○ Widow/Widower ○ Prefer not to ○ Other _____

SECTION 2: HOUSEHOLD INFORMATION

Q7: Number of people in the household

○ 1 ○ 2 ○ 3 ○ 4 ○ 5+

Q8: Select your residential province

○ Eastern Cape ○ Free State ○ Gauteng ○ KwaZulu-Natal
○ Limpopo ○ Mpumalanga ○ Northern Cape ○ North West
○ Western Cape

Q9: What is your main internet connection?

○ Fibre ○ ADSL ○ LTE ○ 5G ○ WISP

○ Mobile Data (Smartphone) ○ None ○ Other _____

Q10: What video-on-demand streaming services do you subscribe to?

☐ Netflix ☐ Showmax ☐ Amazon Prime Video ☐ Apple TV

☐ Other _____

Q11: What streaming device do you use?

☐ Television Set ☐ Smartphone ☐ Tablet

☐ PC/Laptop ☐ Gaming Console ☐ HDMI Streaming Device

☐ Other _____

Q12: What traditional TV subscription services do you have?

☐ DStv ☐ StarTimes ☐ None

Q13: What traditional TV subscription services package do you have?

○ Premium ○ Compact Plus ○ Compact

○ Family ○ None ○ Other _____

SECTION 3: RESEARCH QUESTIONS

Degree of Agreement	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
Mean	1.00	2.00	3.00	4.00	5.00	6.00	7.00

Q14 - Video-on-Demand subscription competitiveness (VC)		SD	D	SD	N	SA	A	SA
VC1	I consume video-on-demand services wherever I am	1	2	3	4	5	6	7
VC2	I have access to a massive content library to select my preferred content through video-on-demand services	1	2	3	4	5	6	7
VC3	I binge-watch video-on-demand content for various reasons such as catch-up content, release stress, to learn and others	1	2	3	4	5	6	7
VC4	Video-on-demand services are competitively priced for the value I receive	1	2	3	4	5	6	7
VC5	I must subscribe to multiple video-on-demand services to access different content increasing the cost of subscriptions	1	2	3	4	5	6	7
Q15 - Video-on-Demand subscription innovation (VI)		SD	D	SD	N	SA	A	SA
VI1	I consume original video-on-demand content immediately without any time restrictions	1	2	3	4	5	6	7
VI2	I easily discover new personalised video-on-demand content based on my personal preferences	1	2	3	4	5	6	7
VI3	I easily interact with video-on-demand services providing feedback to improve my experience	1	2	3	4	5	6	7

VI4	I conveniently and easily search for new video-on-demand content to explore new genres	1	2	3	4	5	6	7
VI5	I watch my video-on-demand content from multiple devices seamlessly	1	2	3	4	5	6	7
Q16 - Traditional subscription TV competitiveness (TVC)		SD	D	SD	N	SA	A	SA
TVC1	I watch a wide variety of live sports, news, and shows on traditional subscription TV services	1	2	3	4	5	6	7
TVC2	Subscription TV services promote social engagement with my family and friends get together to enjoy common content	1	2	3	4	5	6	7
TVC3	My family always have content to watch in all genres for everyone in a household with a single TV subscription fee	1	2	3	4	5	6	7
TVC4	Subscription TV services are easy to set up with requiring a TV and a set-top-box in my household	1	2	3	4	5	6	7
TVC5	Subscription TV services offer customer service support that I can access physically, including digital systems to better support me and increase engagement	1	2	3	4	5	6	7
Q17 - Traditional subscription TV Innovation (TVI)		SD	D	SD	N	SA	A	SA
TVI1	I have access to a standalone streaming service attached to my subscription TV service using the internet across multiple devices	1	2	3	4	5	6	7
TVI2	Subscription TV services local and relevant content that I relate to and enjoy with my family	1	2	3	4	5	6	7
TVI3	I have access to consolidated content from various content creators through a single device from one subscription	1	2	3	4	5	6	7
TVI4	Subscription TV services allow my household to view live TV on multiple screens with different devices sharing the same subscription	1	2	3	4	5	6	7
TVI4	Subscription TV services are innovating and creating next-generation devices offering me advanced functionalities such as video-on-demand and streaming	1	2	3	4	5	6	7
Q18 - Traditional subscription TV service satisfaction (TVS)		SD	D	SD	N	SA	A	SA
TVS1	I will cancel my traditional TV subscription in favour of video-on-demand services	7	6	5	4	3	2	1
TVS2	I will downgrade my traditional TV subscription to a lower package	7	6	5	4	3	2	1
TVS3	I will upgrade my traditional TV subscription to a higher package	1	2	3	4	5	6	7
TVS4	Traditional TV subscription loyalty program meets my requirements and needs	1	2	3	4	5	6	7
TVS5	I have or will sign-up a video-on-demand service to complement my traditional TV subscription	7	6	5	4	3	2	1
Q19 - Video-on-Demand subscription satisfaction (VS)		SD	D	SD	N	SA	A	SA
VS1	I will cancel my video-on-demand subscription in favour of subscription TV services	7	6	5	4	3	2	1
VS2	My current video-on-demand subscription meets all my requirements	1	2	3	4	5	6	7
VS3	I will subscribe to other video-on-demand subscriptions to gain access to more content	1	2	3	4	5	6	7
VS4	I have or will sign-up a traditional TV subscription to complement my video-on-demand subscription	1	2	3	4	5	6	7

APPENDIX C – Ethics Approval

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/DB2359136/391
This certificate is only valid with a legitimate ethics protocol number and signed by the Researcher (below,

Project title	The perceived impact of video-on-demand services adoption on subscription TV services in South Africa
Investigator / Researcher	Mr Fanna Njomo
Nature of Project	MM (Digital Business)
Decision of the Committee	Approved, provided stakeholders and participants are guaranteed anonymity and confidentiality.
Issue Date of Certificate	2021-09-26
Expiry date	Date of submission of the project report
Chairperson	Prof Anthony Stacey ☎ +27 11 717 3587 +27 82 880 4531 anthony.stacey@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

27/09/2020
Date:

APPENDIX D – University Survey Permission Letter

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

OFFICE OF THE DEPUTY REGISTRAR

06 October 2021

Fanna Njomo
Student Number (2359136)
Master of Management in Digital Business
Wits Business School

TO WHOM IT MAY CONCERN

"The perceived impact of video-on-demand services adoption on subscription TV services in South Africa."

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/DB2359136/391)

Research Expiration: (Research submission date)

Nicoleen Potgieter
University Deputy Registrar

APPENDIX E – Plagiarism Declaration

Wits Business School
Sculpting global leaders

THIS DECLARATION IS TO BE ATTACHED TO ALL ASSIGNMENTS

Student details	
Student Number: 2359136	Student name: Fanna Njomo
Email address: 2359136@students.wits.ac.za	

Assignment details	
Course Code: BUSA 7479A	Course Name: Research Report Project
Assignment no.	Due date:
Assignment topic *(as given in the coursepack)*:	

Student Declaration

I am aware that plagiarism (the use of someone else's work without their permission and/or without adequately acknowledging the original source) is wrong and is a violation of both the General Rules for Student Conduct and the Plagiarism Policy of the University of the Witwatersrand.

I am aware that it is wrong and is a violation of both the General Rules for Student Conduct and the rules of the Wits Business School for a student to submit for a course, unit, or programme of study, without the written approval of the course instructor or the programme director, all or a substantial portion of any work for which credit has previously been obtained by the student or which has been or is being submitted by the student in another course, unit, or programme of study in the University or elsewhere.

I confirm that this assignment my own unaided work except where I have explicitly indicated otherwise.

I confirm that this assignment has not been nor will be submitted in whole or in substantial part in another course, unit, or programme of study in the University or elsewhere without the written approval of the course or unit instructor or the programme coordinator.

I confirm that I have followed the required conventions in referencing the words and ideas of others in this assignment.

I confirm that I understand that this assignment may at any time be submitted to an electronic plagiarism detection system, and may be stored electronically for that purpose.

I confirm that I have received a copy of the University's Plagiarism Policy S2003/351B and a copy of the General Rules for Student Conduct and Code of Conduct C2010/27.

I confirm that I understand that any and all applicable policies, procedures, and rules of the University and of the School may be applied if there is a belief that this assignment is not my own new and unaided work, or that have failed to follow the required conventions in referencing the words and ideas of others, and I understand that application of the policies, procedures, and rules may lead to the University taking disciplinary action against me.

Note: The attachment of this statement on any electronically submitted assignments will be deemed to have the same authority as a signed statement.

Student Signature:	Date: 24/02/2022

APPENDIX F – Language Editing Confirmation

EDITING CONFIRMATION

To whom it may concern:

This memo serves to confirm that the manuscript/research project detailed below has been language-edited and/or proof-read.

Regards,

-IETS-

IET Innocent *(Cert. Lang. Ed.)*
Language Editor

****

Research Title:

The perceived impact of video-on-demand services adoption on subscription TV services in South Africa

Author:

Fanna Njomo

Issued on:

26/02/2022

Disclaimer:
The editor/proofreader makes no claim as to the accuracy of the manuscript contents nor the objectives of the author. While all possible efforts have been made to ensure the text as edited is readable and grammatically correct, the author(s) have the option to accept or reject suggestions and trackable changes made to the document before submission.

*** Professional Editors ***

sarchcot@gmail.com