

**Institutional Factors Influencing the Service Provision of
Mobile Network Operators (MNOs) in
Zimbabwe**

Elizabeth Malaba Ncube

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Abstract

There is a lot of literature on telecommunications, but most of it covers telecommunications companies established in foreign countries. That literature has documented experiences of Foreign Direct Investment (FDI) companies operating in foreign lands. Of course, these companies must meet certain requirements to establish themselves in those countries. Available literature on these FDI telecommunications firms has found politics, regulations, corruption, cultural and some operational factors. Other than that, these FDI MNOs operate in the same environment as local MNOs and yet very little is known about telecommunications companies operating in the domestic market. This thesis, using the lens of institutional theory, addresses the influence of institutional factors on MNOs in the domestic market of Zimbabwe, a developing country in Africa.

This research adopts a case qualitative study with thirteen in-depth interviews and archival documents from International Telecommunications Union (ITU), Global System for Mobile Communications Association (GSMA), Post and Telecommunications Regulatory Agency of Zimbabwe (POTRAZ). These documents together with interviews were studied and triangulated. Regarding formal institutions, this study has found the influences of politicians, regulatory agencies, POTRAZ and the Reserve Bank of Zimbabwe. Informal institutions, the community, and infrastructural challenges have influenced the services offered by MNOs in Zimbabwe.

This thesis contributes a significant understanding of how institutional factors influence the service provided by MNOs in Zimbabwe. This study has shown how formal institutions, in this case, politics and regulations together with informal institutions, communities affect the operations of MNOs in the country. Politicians, regulators solicit for favours (through bribery and nepotism) from MNOs who must oblige, to remain in business. On the other hand, informal institutions influence the operations of MNOs by destroying or stealing infrastructural components have had communities destroy infrastructure leading to disruption and unavailability of mobile services. This study also contributes to institutional theory literature, by addressing the African view of looking at formal and informal institutions. This study finds that in the African perspective, the two, formal and informal co-exist, but their influence on the service of MNOs is independent of each other.

This study further contributes to institutional theory, the African perspective which appears to be lacking. The thesis also contributes to the application of institutional theory, the African perspective in management. The results of this study indicate that the Zimbabwe's telecommunications regulatory body, POTRAZ needs to be revisited and updated accordingly.

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List of Abbreviations

ABD	Africa Development Bank
Agritex	Agricultural extension system in Zimbabwe
AT & T	American Telephone and Telegraph Corporation
Capex	Capital Expenditure
COMESA	Common Market for Eastern and Southern Africa
CCZ	Consumer Council of Zimbabwe
CTI	Computer Telephony Integration
EASSC	East African Submarine System Cable
EU	European Union
FDI	Foreign Direct Investment
GATT	General Agreement on Tariffs and Trade
GSM	Global System for Mobile Communication
GSMA	Global System for Mobile Communications Association
IMF	International Monetary Fund
ITU	International Telecommunications Union
MDGs	Millenium Development Goals
MNCs	Multinational Corporations
MNO	Mobile Network Operator
NT & T	Nippon Telephone and Telegraph
OECD	Organisation for Economic Co-operation and Development
OFTEL	The Office of Telecommunications
POTRAZ	Post and Telecommunications Regulatory Agency of Zimbabwe
PTC	Posts and Telecommunications Corporation
RBZ	Reserve Bank of Zimbabwe
SADC	Southern Africa Development Community
SAP	Structural Adjustment Programme
SIM card	Subscriber Identity Module card
SSA	Sub-Saharan Africa
SATA	Southern Africa Telecommunications Association
TI	Transparency International
UK	United Kingdom
UN	United Nations

US	United States
WACS	West African Cable System
WB	World Bank
WBES	World Bank Enterprise Surveys
WTO	World Trade Organisation

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Declaration

I declare that this work has not been submitted for any other award and that this is my own work. The work has fully acknowledged ideas and contributions by others. The way in which information was collected from individuals who accepted the invitation to be interviewed called for ethical clearance which was approved by the University of Stirling Ethics Committee before data collection began.

Name: Elizabeth Malaba Ncube

Chapter 1 Introduction and Background to the Study

1.1 Introduction

This chapter introduces the telecommunications sector from pre-liberalisation to post-liberalisation. It also considers what changes the liberalisation brought to the telecommunications sector in the context of the African continent and the anticipated advantages deriving from these reforms. The chapter highlights the transformation from state ownership to liberalised ownership, leading to the growth of mobile telecommunications compared to the state-owned fixed lines. The next section discusses the importance of mobile telecommunications.

1.2 The importance of the telecommunications sector

The telecommunications sector is seen as the central nervous system of global communications and media policy (Castells, 1996; Chakravarty and Sarikakis, 2006; Moss et al., 2006). Telecommunications play a critical role in social, cultural and economics of a country. Telecommunications are important for economic development, employment and income creation (Hodge and Njinkeu 2002). Telecommunications are seen as an input for production of goods and services (Doumbouya and ILEAP 2004). The United Nations (UN) also sees telecommunications as a key instrument in achieving some of the other objectives (ITU 2004).

Recent world growth in network infrastructure and tele-accessibility reflects the important role telecommunications play in economic growth (Madden and Savage 2000). Economically, telecommunications generate \$3.1 trillion (GSMA 2016). It facilitates communication and reduces the cost of business transactions and promotes efficiency in businesses. Households can obtain products and services information without having to travel, and hence, they save money. Generally, it is understood that the telecommunications sector generates revenue and creates employment opportunities and improves productivity of inputs. In addition, the sector lowers transaction costs, facilitates the creation of knowledge, reduces price dispersions and price fluctuations. Telecommunications also make markets more efficient and promotes investment. Understanding the factors that influence the provision of

services by MNOs will help governments and other stakeholders to design policies, regulations, and strategies that would make it conducive for providers to provide quality services to consumers/subscribers.

Mobile communications contribute to the functioning of individuals, and society, as a type of central nervous system (Moss, et al., 2006). The absence of mobile communications would mean that household and organisations would find it difficult to carry on their daily functions. MNOs play a crucial role in the provision of the backbone infrastructure to communications development and delivery of core services that enhance people's quality of life (Runhaar and Lafferty 2009). This study focuses on the factors influencing the service provided by MNOs to consumers/subscribers.

Globally, the telecommunications sector was traditionally a state-owned monopoly. However, state-run telecommunications were inefficient and ineffective, leaving a great number of people unserved (Chavula 2013). Fixed lines concentrated in urban centres and yet most of the African population lives in rural areas. Coverage was limited due to lack of technical capacity and investment in the sector (Williams and Kwofie 2014; ITU 1999). This is evidenced by the performance of the South African state-owned company, Telkom which was formed after separating telecommunications from the South African Posts and Telecommunications. Telkom, like all government-owned telecommunications services, was not performing well (Gillwald, et. al., 2012). Telkom's fixed line service had between 4 and 5 million lines for South Africa's population of 40 million from 1991 to 2000. That meant 12.5 lines per 1000 persons (World Bank 2017). That was what was happening in most African telecommunications markets (Ibrahim 2012) where the highest fixed line penetration rate was an average of 1.74 lines per 100 persons in 1996. The continent had a population of 760 million people but only 4.3 million fixed lines (Minges 1999).

Sub-Saharan Africa (SSA) was the worst, with a penetration fixed line rate of 0.48 per 100 persons compared to, at the same period, East Asia 8.23, Latin America and the Caribbean had 13.21 fixed lines per 100 persons (Minges 1998). All the above are an indication that the government-run telecommunications sector was not viable. Most people, especially in the African continent were not covered by the network. Fixed lines that were concentrated in urban centres show that the government-run telecommunications did not meet the needs of the people. The consensus was that

the government-run telecommunications sector was inefficient in the provision of telecommunication services. It was then concluded that competition in the sector would bring efficiency and affordability in services. To achieve this objective, there was a need to deregulate, liberalise and privatise the telecommunications sector.

Governments were under pressure to change. That led to the World Trade Organisation (WTO), formerly the General Agreements on Tariffs and Trade (GATT), to launch the Uruguay round. The Uruguay round called for reforms in services and that included telecommunications services (Whalley and Hamilton 1996). The Uruguay round was concluded in 1997, calling for the liberalisation of the telecommunications sector. Governments were urged to limit their involvement in telecommunications and open the sector to private ownership. That would allow competition and in turn, lower tariffs. It would also encourage competition and improve services and lead to an effective and efficient telecommunications sector. The pricing, quality and flexibility of telecommunications services were becoming a larger factor in production (Cowhey and Klimenko 2000). Transformation would bring about the needed investment and technical capacity. Ultimately, that would improve the service and coverage and thus close the existing digital gap. World-wide, transformation in telecommunications saw more attention being turned toward the use of mobile telecommunications. In Africa, the use of, and subscriptions to mobile phones leapfrogged fixed lines. The era saw ten times as many mobile phones as landlines in SSA with 60% of the population having mobile phone coverage (ITU 2009).

1.3 Deregulation, Liberalisation and Privatisation of Global Telecommunications

It is necessary to understand how the industry has evolved to the point where the private sector participates in an industry that was previously regarded as a government sector. This section describes the processes that have taken place in the global arena of the telecommunications sector from when it started to where it currently stands.

Deregulation is the relaxation or abrogation of existing laws, statutes, rules and regulations by means of which the state tries to influence the activities of private actors; *liberalisation* is the lifting of existing barriers to market entry; and *privatisation* refers to changes in the legal form of public administrations or corporations from public to

private law status and/or the selling of shares of publicly owned corporations (Grande 1994).

The reforms started with the US when it created competition in the telecommunications market for distance services and liberalised the market for competition in telecommunications equipment. The US did this incrementally from the 1950s. The US did this by introducing competition in three main areas of the telecommunications market. These were in the supply of apparatus, provision of services and the running of public networks dominant operator, American Telephone and Telegraph Corporation (AT & T). Western Europe was resistant to the deregulation and liberalisation of their telecommunications and adhered to the old Public Telephone & Telegraph (PTT) model well into the 1980s. At the beginning of the 1980s the telecommunications market was regulated by the government-owned telecommunications monopoly in both Organisation of Economic Cooperation and Development (OECD) countries and non-OECD countries (Heli 2002). The regulation of the telecommunications sector by a government department creates the problem of the regulatory authorities. The problem is that being part of the political process and yet their personal objectives may differ from the targets that would maximise society's welfare (Heli 2002). The UK and Japan followed the US by introducing competition for local phone services but restricted the number of entrants.

In 1984 a telecommunications Act was passed in the UK. The Act empowered the government to privatise British Telecom and establish an independent regulatory body, Office of Telecommunications (OFTEL) for the telecommunications sector and followed the US model. The Act provided the legal basis for organisational separation of telecommunications (British Telecom) from the Old Post Office. The government was empowered to liberalise the existing telecommunications monopoly. That resulted in the British Telecom selling 51% to the private sector in 1985. The same year saw Japan breaking up its telecommunications monopoly through Nippon Telephone and Telegraph (NT & T) and liberalised its overall telecommunications market (Hamelink, 1994).

Since the beginning of the 1980s, institutional structures of the entire telecommunications sector have been under pressure to change (Grande 1994, Li et al., 2005). All this was for the provision of an efficient, affordable telecommunications

service to subscribers. In 1982, Mercury was licensed to build and operate the second public telecommunications network and to compete with British Telecom. The obvious reforms were those of the separation of posts and telecommunications administrations into public corporations and the establishment of regulatory bodies, for example, OFTEL in the UK (Grande 1994). However, most countries were not in favour of the idea until Australia, New Zealand and Canada gradually embraced competition in this area.

In 1986 the World Trade Organisation (WTO) formerly General Agreement on Tariffs and Trade (GATT) launched the Uruguay Round. That, of course, included trade in services and in telecommunications services on its multilateral agenda (Whalley and Hamilton 1996). It was concluded that an inefficient market for telecommunications threatened competitiveness in the computer software and information industry markets. At that time, most countries' telecommunications were state-owned and provided a poor-quality service. In the 1990s most countries had implicit and opaque regulations of telecommunications services (Li et al., 2005). This was supported by Grande (1994) who asserted that the institutional structures of the entire telecommunications sector were under enormous pressure to change, especially since the beginning of the 1980s. That was because the operator was the state and was self-regulating. There was a need for a separate and proactive regulator to go with the changing times in the telecommunications sector (Li et al., 2005). European Union (EU) members concluded that monopoly control of the public phone network would always discourage realistic pricing and provision of infrastructure for information services and equipment.

Between 1990 and 2000 the number of independent national telecommunications regulatory agencies multiplied from 20 to 101, regulating new terms of liberalisation and introducing competition into practice (Samarajiva 2001). This saw WTO pass the Agreement on Telecommunications in 1997. In the years 1984 -1999, between \$250 billion and \$1trillion of state-owned telecommunications networks were sold to private investors. During the same period, 189 member nations of the International Telecommunications Union (ITU) had partially privatised their domestic telecommunications sectors (McChesney and Schiller 2003).

The soaring US economy symbolised the US's resurgent informal industry. Major countries believed that a profound globalisation of the information industry was inevitable and a driving force for national economic growth. It was estimated that two thirds of the US accelerated productivity growth in the late 1990s came from the telecommunications sector (Coyle and Thorson, 2013; Fagerberg, 1994). All these reforms have altered the role of the State in telecommunications. The new institutional arrangement has taken over the old public administration of the old PTT model with the state allowing private activities in the telecommunications sector and the commercialisation of some services. However, there was no uniformity in the way countries deregulated, liberalised and privatised. Each country had its own way of going about it.

Empirical results have confirmed that privatisation and liberalisation have improved the productivity and efficiency of the sector (Iam and Shiu 2008). Research has shown that high income developed countries have achieved a higher degree of privatisation and liberalisation than low-income developing countries. This explains why high-income developed countries have a better productivity performance than the low-income developing countries (Madden and Savage 1999; Ros 1999). These reforms were meant to privatise the telecommunications sector, opening it up to competition. That was meant to offer subscribers/consumers a wider choice of providers to choose from. Competition brings with it affordable prices. Previous research has shown that subscribers were not happy with prices charged by MNOs. That could be caused by lack of competition or government regulations, rules and policies. Those would render the WTO intentions not achievable, and the UN's declaration that access to information was a human right not adhered to (Coyle and Thorson 2013).

1.4 Liberalisation of the Telecommunications Sector in the African Context

This section discusses how African countries have handled the reforms in the telecommunications sector. It discusses the trends in the telecommunications sector on the African continent. The discussion leads to a focus on Zimbabwe followed by how the country has handled reforms and what that entails in the way they provide the service.

National telecommunications systems in Africa, like in all parts of the world have transitioned from being public service monopolies to competitive systems with full or

partial private ownership (Fink, 2011; Zohinhofer, et al., 2008). State-owned telecommunications were renowned for inefficiency and inability to address the gaps in the coverage of telecommunications. That was evidenced by the great number of people who were not connected. State-owned ownership and competition were transformed after the conclusion of the Uruguay round in 1997. This liberalisation of the telecommunications sector brought about transformation in the sector. Prior to the liberalisation of the telecommunications sector, Africa had 1.5 fixed lines per 100 persons in 1994 compared to the US that had 65 and 47 lines per 100 persons in the same period (ITU 2009, WB 2009).

The liberalisation and privatisation of the telecommunications industry in African countries was part of the Structural Adjustment Programme (SAP) proposed by the World Bank (WB) and the International Monetary Fund (IMF). At the end of the 1980s, African governments undertook economic reforms when telecommunications sectors in most countries were state-owned and could not efficiently provide services, and were performing poorly (Wellenius et al., 1992).

The Washington Consensus was adopted by the US and Latin American governments. The international financial institutions (WB and IMF) promoted it in Africa with the aim of ensuring economic growth with a strong emphasis on opening markets (Williamson 1993). The international financial institutions were calling for: privatisation of state-owned operators; liberalisation by the licensing of a few additional MNOs and international gateways; and regulation of the resulting market by a quasi-independent agency (Williamson 1993). These were the WTO commitments for independence from major operators, not from governments which were expected to continue to set policies and with parliaments to define the legal framework. According to ITU (1999), in 1998, 70% of the incumbents in the Americas were private; and about 50% in Europe and the Asia-Pacific region were private. In Africa, 70% were still state-owned. The idea was to have an agency that was independent of the government. In Africa, instead, that entailed close relations between governments, regulators and the operators with extensive and often opaque lobbying (Sutherland 2014). However, these instead became oligopolies designed by governments and operators through lobbying, with occasional and sometimes systematic bribery, cronyism and nepotism (Sutherland 2014).

Whilst other African countries have opened their telecommunications sectors to competition, Southern African Development Community (SADC) member states chose managed liberalisation rather than opening their telecommunications market to full competition (Jacobs 2009). Even though there are commonalities in African countries, each country handled the transformation differently. That is because the countries' economic and political environments differ immensely. What is common is that Africa heeded the call for the liberalisation of state-owned telecommunications sector.

Generally, governments have differed in their willingness to cede control to the market and most have a penchant for gradualism (Fink and Neumann 2009). Competition has been introduced but the number of firms has been fixed by policy. Privatisation was often partial and there are limits on foreign participation. Autonomous regulators have been created but are rarely independent (Fink et al., 2009). Whatever route a country decides to take, it is the consumer/subscriber who is at the receiving end of the decisions made by the state.

The telecommunications industry is expanding rapidly in Sub-Saharan Africa (SSA) and mobile telephony accounts for almost all that growth (KCS Country Risk 2011). In 1995, there were less than 10 million mobile phone users in Africa. Thirteen million joined African networks in 2003 alone adding the total number of users to about 52 million. ITU (2004) reported that African telecommunications operators realised \$10 billion in revenues in 2003 and about \$1 billion earnings. The mobile phone penetration rate was 65% in 2013 (ITU 2013), and thus, SSA has established itself as the fastest growing mobile phone market in the world (KCS Country Risk 2011). However, despite all this growth the digital divide exists because mobile penetration in developed countries was 82% against 21% in developing countries (ITU 2015).

Mobile phone usage has grown faster in SSA than in any other region (Luiz and Stephan 2012) and hence the importance of this study which explores institutional factors influencing service provision in Zimbabwe. The SSA region has been encouraged to invest in telecommunications and services since there were signs that telecommunications increased returns (Batuo, 2015). African countries heeded the call by international financial institutions for the privatisation of state-owned operators. That saw liberalisation of the sector by the licensing of a few additional Mobile Network

Operators (MNOs) and regulation of the resulting market by a quasi-independent agency (Sutherland 2017).

African countries still represent substantial growth in mobile telecommunications (Asongu and Asongu 2018), whilst markets in Asia, Europe and North America are stabilising. Schoentgen and Gille (2017) cite the attractiveness of the African telecommunications market as coming from the underdevelopment of the sector in the early 2000s when fixed telephony's penetration was around 1%. Schoentgen and Gille (2017) found that during the decade 2000 – 2009, mobile telecommunications have strongly developed and are now the main technology used to communicate despite the low-income local customer base. Africa has been connected via mobile networks and has become a mass market of low-income consumers. A lot of incumbent operators have been privatised and liberalised. It has been reported that mobile phone penetration vs Internet penetration around the world in 2010 had been greatly asymmetric (Bernard et al., 2012). However, in developed countries, these had reached saturation, marking an uneven development in Information and Communication Technologies (ICTs) in Africa.

The reforms in telecommunications were meant to alleviate world poverty. The World Bank, (2015), on the Millennium Development Goals (MDGs) revealed that poverty had been decreasing in all regions of the world except for SSA. It has been found that 45% of countries in the sub-region are off track from MDGs (WB, 2015; Asongu and Kodila-Tedika, 2017; Bicaba et al., 2017; Asongu et al., 2017). This was so, and yet the region was enjoying over two decades of economic growth resurgence that started in the 1990s, (Fosu, 2015).

Telecommunications, especially mobile telephony in Africa has been a great success story that Etzo and Collender (2010) call a rare instance of good news (Sutherland 2014). Recently, success has emerged in mobile banking, mobile insurance, and other financial services (Hughes and Lonie, 2007; Mbiti and Weil, 2013). Nairobi and Johannesburg have become centres for the development of related applications (apps). Successful as it might be the continent has significant problems which are unlikely to be easily solved (Sutherland 2014). Sutherland (2014) cites several issues affecting the African telecommunications sector, and among others are: limited

competition; high unaffordable prices; poor quality of service and of experience; limited geographic coverage and corruption.

SSA has some of the lowest levels of infrastructure investment in the world (Aker and Mbiti 2010). Twenty-nine percent of roads are paved, and a quarter of the population has access to electricity and fewer than three landlines available per 100 people (ITU 2009; WB, 2009). This is despite the dramatic increase in mobile telephony in SSA over the past decade. There were ten times more mobile phones than landlines, with 60% of the population with mobile coverage. In SSA mobile phone subscriptions increased 49% between 2002 and 2007 as compared to 17% per year in Europe (ITU 2008).

Mobile phones in Africa are evolving from simple communication tools into service delivery platforms. The development paradigm surrounding mobile phones has shifted from one that simply reduces communication and coordination costs to one that could transform lives through innovative applications and services (Aker and Mbiti 2010).

Disparities exist in terms of geographic rollout of coverage, that is, there is an intra-Africa digital divide (ITU 2008). In 1999 most African countries had no mobile coverage only Egypt, Morocco, Senegal and South Africa had coverage of over 40%. However, by 2008, 65% of the African population had access to mobile phone service that is, 93% in North Africa and 60% in SSA. The lowest coverage was found in Ethiopia, Somalia and the landlocked Central and West Africa. Whilst the USA, Canada and Europe invested in landlines before moving to mobile networks the mobile phone has effectively leapfrogged the landlines in Africa. This is because landlines networks can be prohibitively expensive, especially in countries with poor roads (Aker and Mbiti 2010).

Landline coverage has been limited, with less than one landline subscriber per 1,000 people in 2008 (ITU, 2009). This meant that access to fax machines, e-mail, and Internet was low.

The African continent still lags, compared to other developing regions, such as Asia and Latin America. Looking at 2006 data (ITU, 2007) the worldwide fixed mainline telephones were 1,270 million, but Africa had less than 2% compared to the 48% of Asian countries (Batuo, 2008). Brazil, alone, had a total number of telephones higher than the whole of the African continent (Batuo, 2008). Generally, the main fixed line

penetration was only 3.1 per 100 inhabitants compared to 32.4 main line in the Americas and 39.7 in Europe in 2006, with a world average of 19.5. During the same period in Africa, fixed line was concentrated in just Algeria, Egypt, Morocco, Nigeria, South Africa and Tunisia (Batuo 2008).

The most talked about problem facing the continent in the telecommunications sector is corruption. Corruption and bid rigging have tainted many telecommunications projects in the last decades (OECD 2014). There is corruption in the allocation of licences to service operators, corruption through political interference in price-setting, corruption in the supply chain and corruption in customs authorities and customer services. Corruption in the issuance of licences and public procurement can appear at all stages of the procurement cycle. Licences to mobile service operators see a hive of government activities and in Africa that makes it vulnerable to corruption Transparency International (TI) (2010).

Mobile phone operators' service offering in Nigeria was affected by infrastructure (The Guardian 2014). Poor domestic infrastructure and the state monopoly on landlines are said to be making it difficult for ordinary people to get connected (Allison 2013). Low electricity penetration, lack of infrastructure and low affordability are challenges for the telecommunications industry in SSA (Campos 2018).

While SSA heeded the call for liberalisation of telecommunications, recent research indicates that this liberalisation has not been successful because the problems that were meant to be solved by the liberalisation of telecommunications remain.

The Mobile Economy Sub-Saharan Africa (2023) reported that in 2018, mobile technologies and services generated 8.6% GDP in SSA, that was a contribution of \$144.1 billion of economic value added. In addition to that, the mobile ecosystem supported almost 3.5 million jobs and a contribution to the funding of the public sector, raising nearly \$15.6 billion through taxation. The publication anticipated then that by 2023 the contribution to economic growth would almost be 91.1% GDP, an estimated amount of \$185 billion.

GSMA (2022), reported that mobile technologies and services generated 8.1% of GDP across Sub-Saharan Africa. This amounted to about \$170 billion of economic value added. Most benefits came from productivity effects of \$110 billion, followed by the contribution of mobile network operators, which generated \$40 billion.

However, in 2022 about 15% of the population in Sub-Saharan Africa was not covered by mobile broadband networks. This coverage gap is more significant in rural and remote areas. Coverage in rural areas is primarily an economic challenge due to costs being prohibitive, revenues are lower and more complex logistics. (GSMA Intelligence 2023).

The literature indicates the importance of the mobile telecommunications sector on the continent. Since the sector is important to the continent for the generation of revenue, it becomes important to investigate the environment in which the sector operates. Zimbabwe, a SADC member state has been chosen for the study. The literature shows the success of the mobile telecommunications sector in SSA. However, there seems to be limited coverage in rural areas where the largest number of the African population lives. The Uruguay round had emphasised the deregulation, competition, privatisation, and liberalisation of the telecommunications sector, but there seems to be anomalies in SSA. The incumbent MNOs have remained unchallenged for decades. This study explores the institutional environment under which these MNOs operate.

The idea of the liberalisation of telecommunications globally was to improve communication and contribute to the world economy. To achieve this, mobile telecommunications must be affordable to the citizens of a country. The introduction of competition was meant to make this possible. However, as can be seen from table 1.1 below, some tariffs in the SADC region are so high that they are beyond the reach of some citizens in those countries. The table below shows the affordability of the mobile telecommunications services in SADC with Zimbabwe being the most expensive country.

Table 1.1 SADC data prices compared

Country	1GB Bundle Price US\$
Zimbabwe	43.75
Zambia	8.01
Seychelles	5.43
Botswana	1.99
Lesotho	1.96
South Africa	1.81
Eswatini	1.26
Namibia	1.20
Madagascar	1.12
Angola	1.01
Tanzania	0.84
Mozambique	0.78
Mauritius	0.67
DRC	0.52
Malawi	0.38

Source: Africa; Cable.co.uk July 2023

Gains from mobile telecommunications differ from country to country due to governance, political, legal and cultural factors. This study aims to explore those institutional factors that are likely to influence the service provision of the mobile telecommunications sector in Zimbabwe. From the above discussion, it is obvious that the mobile telecommunications sector is important to the African continent as witnessed by its penetration in the continent and its contribution to the economy. This comes about because the subscribers are willing to pay for the service. To ensure continued growth in the mobile sector, subscribers need to receive a good service from the MNOs. Previous research covered the consumers' perspectives of the service they receive in terms of the variables outlined. This study seeks to explore the institutional environment under which the MNOs provide the service to the subscribers. These institutional factors will in turn dictate the type of service the subscribers get from the MNOs and the willingness of subscribers to continue paying for that service.

The study departs from focusing on the whole continent and explores the Southern Africa Development Community (SADC) region with a focus on Zimbabwe. The results of the study are likely to be replicated in other SADC member states as well as other countries on the continent whose influencing factors are like those found in Zimbabwe.

The next section gives a brief account of the liberalisation of the telecommunications sector in Zimbabwe.

1.5 The Zimbabwean Context

Zimbabwe has three MNOs, NetOne is state-owned, and is the sole provider of fixed lines. ECONET is privately-owned by an indigenous Zimbabwean entrepreneur who was first denied a licence by the government and made history by taking government to court for their refusal to award him a licence. The founder of ECONET won a three-year court battle and the company was awarded a licence in 1997. Econet has turned out to be the company that has the largest market share of the three MNOs. Any network problem at Econet means that operations in the country come to a standstill – businesses, the private sector and government departments all rely on Econet network. It is, therefore, important for government to address the anomalies in the telecommunications sector. The third MNO, TELECEL started operating in 1998 and the government owns 60% whilst 40% (no substantive information on ownership) is owned by a private consortium of local and foreign businesspeople. Table 1.2 below shows the performance of Zimbabwe's.

Table 1.2 List of Zimbabwe mobile network operators

Name of Operator	Year Started	Number of Subscribers	Market Share
NETONE	1994	3,864,048	25.56
ECONET	1997	10,874,464	71.94
TELECEL	1998	377,790	2.50
TOTAL		15,116,302	100%

Source: POTRAZ Report – Second quarter of 2024

Telecommunications in Zimbabwe (formerly Rhodesia) was regulated by the Post and Telecommunications Corporation (PTC) authority from the colonial era. This was the [trend](#) in most countries, where the regulator was a political agency under supervision of the executive government (Howard and Mazaheri 2009). Zimbabwe, after gaining

its independence in 1980, continued with the colonial structure of monopoly in telecommunications (Djiofack-Zebaze and Keck 2009).

In 2000, however, the Post and Telecommunications Act ended PTC's monopoly and created the Postal and Communications Regulatory Authority of Zimbabwe (POTRAZ) to ensure a playing field in the post and telecommunications sector. This legislation brought about a new institutional framework for telecommunications by liberalising the sector (Sirewu 2011). However, the government controls the Information and Communication technology regulatory agencies, and that includes POTRAZ (African Development Bank 2012).

1.6 The Research Issue

This research investigates why there are persistent problems regarding the service provided by MNOs, more than two decades after the liberalisation of the telecommunications sector. To explore this, the research uses institutional theory to establish the service problem through analysing institutional factors that are likely to influence the provision of mobile phone services by the Mobile Network Operators (MNOs) in Zimbabwe.

Previous research on mobile phone services focused on the consumers' perceptions of the telecommunications services, that is the outputs, and not the causes. That research covered among other areas of service delivery: quality of service, network quality, network coverage, price/tariffs. **Service quality;** Nwakanma, et al., (2018), Vijay and Krishnaveni, (2016); Fallon-Kund et al., (2019), and Variri and Phiri (2017). **Network coverage;** Nwakanma, et al., (2018), Mohana and Kuma, (2016), and Sultana, (2015). **Promotion;** Nwakanma, et al., (2018), Ahmad and Ahmad, (2014), and Olatokun and Nwonne (2012). **Price;** Ahmad and Ahmad (2014); Nwakanma et al., (2018), Vijay and Krishnaveni, (2016).

However, there are factors that could influence the service provision. These are not visible to the consumer, and these are institutional factors, known to MNOs and other stakeholders. Institutional factors are likely to have an impact on the operations of MNOs. The consumer/subscriber is on the receiving end (output) and is not aware of what is going on in the operations of MNOs.

Previous research collected the consumers' responses but if these were negative, the reason remained unknown to the MNOs. That research has continued for decades, researching the same areas of service. This could be because the MNOs crafted their marketing strategies without full information as to why consumers responded the way they did. Subscribers gave their views about the service but could not state the reasons for the type of service they received. There is a need, therefore, to understand from the supply side factors (causes) that lead to the type of service received by subscribers.

This research, by using the lens of institutional theory intends to fill this gap by analysing institutional factors that influence the service provision of service by MNOs.

The overall aim of this study is to:

Investigate and understand formal and informal institutional factors influencing the service provided by MNOs in Zimbabwe and to discover ways in which each of the factors influences the service and then establish ways of mitigating these service problems.

To achieve this aim, the following questions must be answered:

RQ1 - What formal and informal institutional factors influence the service provided by MNOs in Zimbabwe?

RQ2 – How do these institutional factors influence the service offered by MNOs?

RQ3 – How can the influence of these institutional factors be mitigated?

Institutions, according to Scott, (1995, 2013) are regulative, normative and cultural-cognitive pillars, which can influence the telecommunications firms' provision of services. The regulative institution emphasises rule setting that monitors and sanctions activities of firms. The regulative guidelines, in the case of Zimbabwe refer to the monitoring of MNOs' activities by the Post and Telecommunications Regulatory Agency of Zimbabwe (POTRAZ). The normative pillar sets the goals or objectives on how these are attained. In the case of Zimbabwe MNOs this refers to the adherence to the requirements of the International Telecommunications Union (ITU). The cultural cognitive element is the informal institution whose emphasis is on the shared belief of a people within a society.

Scott (2013) suggested that by adopting the three pillars in an investigation, it is important to conduct an in-depth investigation of the influence of each pillar to understand how influential an institution can be in a context. Scott's (1995, 2013) theoretical framework is adopted for this study to investigate which pillars of institution influence the service offered by MNOs in Zimbabwe. Semi-structured in-depth interviews were used to collect data from participants.

The results of the study will complement what is already known from the consumers' perspectives and give a holistic picture of the factors in the operational environment of MNOs and what part of service provision each factor influences. The data gathered from this study will help improve the conditions in the telecommunications industry. The report will inform all stakeholders in the industry for the good of the industry in Zimbabwe as well as other SADC member states and some countries on the continent. The study is important to the African continent because according to WTO reforms in the sector are meant to contribute to economic development of countries. Africa still lags other continents in this area and yet the continent has experienced the highest mobile telecommunications penetration in the world. The results will help the countries to work toward allowing everyone access to information which, according to the United Nations, is a human right. The importance of telecommunications globally and, particularly to Africa, cannot be overemphasised. Table

1.7 Thesis Contribution

This thesis, by using the lens of institutional theory makes theoretical and practical contributions to existing literature on Mobile Network Operators (MNOs). Currently, little is known from the existing literature about the part played by institutional factors in the MNO's provision of services to consumers/subscribers. This existing literature addresses institutional factors affecting the services of FDI mobile networks operators. It is not known how the same factors would influence MNOs operating in the domestic market. This thesis, therefore, addresses that gap by focusing on MNOs operating in the domestic market of Zimbabwe, a developing country in Africa.

Available literature pays attention to the political, regulatory, (formal) corruption and cultural factors (informal) as influencing the services of MNOs in international markets. This thesis finds that the influence of politicians, regulations, infrastructural factors, corruption, vandalism to be influencing the services of MNOs in Zimbabwe.

In relation to theoretical contributions, this thesis contributes to previous literature on political institutions where government officials have been found to be interfering by ordering the shutdown of mobile networks whenever they felt like. This finding complements the findings of Henisz and Zelner, (2001); Guler and Guillen, (2010); Nielson et al (2017); who found that politicians influenced FDI telecommunications firms in foreign countries.

Existing studies show that the regulatory environment influenced the FDI mobile network operators. This thesis found that the regulatory environment of MNOs in Zimbabwe was such that there was discriminatory enforcement of regulations in favour of government MNOs, and thus, affecting the services provided by private MNOs.

This thesis contributes to the findings by Collins and Uhlenbruck (2004) and Sutherland (2011) who found that there was corruption involving international telecommunications firms. This thesis has found that there is corruption within MNOs operating in the domestic market, evidence from Zimbabwe MNOs. This thesis found two forms of corruption, corruption through bribery and corruption through nepotism.

In addition, this thesis contributes to institutional theory literature from (Zimbabwe), that is, the African perspective, formal and informal institutions. The study finds that formal and informal institutions in an African perspective coexist in the institutional environment, but, however, their influence on the institutional environment is independent of each other. For example, the regulatory institution (formal) that spells the rules and regulations. It has been found that people vandalise and steal infrastructural components, and thus working against the formal institution, the regulatory institution, that enforces the rules. Those who destroy and steal infrastructural components are working against POTRAZ, the formal institution that governs the functioning of MNOs.

This thesis, therefore, calls for POTRAZ to revisit and update their rules and regulations.

1.8 Structure of the Thesis

The thesis consists of six chapters. Chapter 1 introduces the theoretical and contextual perspectives of the research and its background. The chapter aims to show

the trajectory of the developments in the telecommunications sector in the Zimbabwean context.

Chapter 2 discusses the theory underpinning the research, that is, institutional theory. In this chapter a critical analysis and synthesis of institutional theory reveals the gaps that the existing literature does not address.

Chapter 3 addresses the methodology chosen by the researcher to address the study questions. The chapter first discusses the philosophical approaches of the research, then the research design, which is qualitative case study approach. The choice was informed by the nature of the problem under study and need to understand the phenomenon. The chapter also describes how data was collected, in this case, through interviews and documents and the triangulation of data is explained. Furthermore, the chapter details how data was analysed, that is, the thematic analysis. The chapter ends with the validity and reliability of the study and the consideration of ethical issues.

Chapter 4 presents the findings of the study which are based on the propositions laid down in Chapter three of the study. This is followed by the presentation of emerging findings.

Chapter 5 critically discusses the empirical findings of the study using themes and concepts that emanated from the analysis. The discussion links the finding with literature on institutional theory.

The final chapter, Chapter 6 concludes this thesis and addresses the study contribution, its implications to policy makers and MNO management in Zimbabwe. The chapter also addresses the limitations of the study and gives suggestions for future research. Figure 1.1 below presents the structure of the thesis.

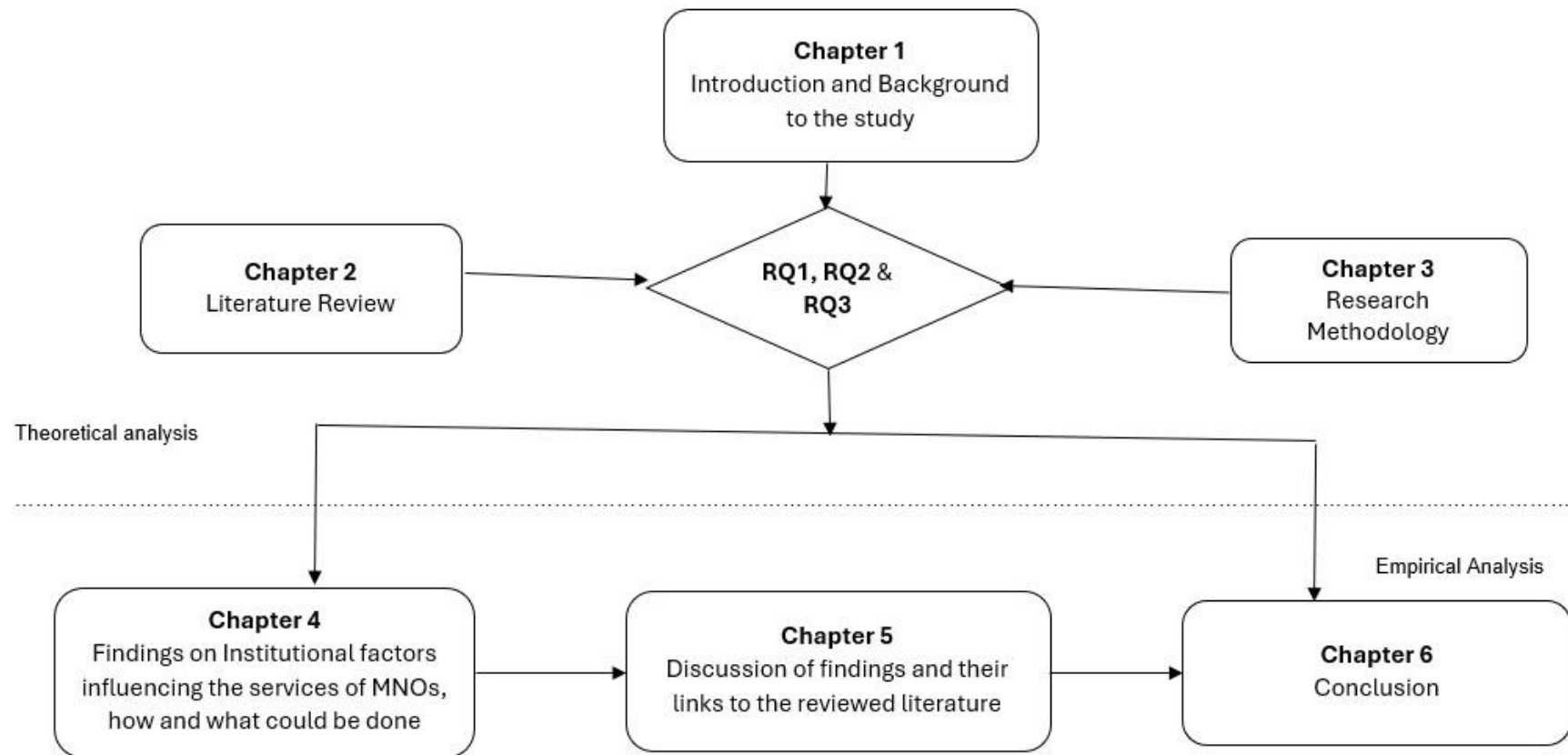


Figure 1.1 Structure of the thesis

Source: Author

Chapter 2 Literature Review

2.1 Introduction

This study employs institutional theory to explore the factors that influence the service provision of MNOs in Zimbabwe. Institutional theory provides a framework that can be analysed to arrive at elements that influence the service provided by MNOs. What customers/subscribers get in the form of service is the result of those factors that are not obvious to the consumer but are being experienced by the MNOs. The type of service experienced by the subscriber is the product of these factors. Institutions, according to Mielke et al., (2019) represent a stable structured approach toward a particular cause. Therefore, there is a need to be more familiar with the cultural, social and political structures of Zimbabwe in terms of what influences the service provided by MNOs in the country.

The chapter is presented as follows:

Section 2.2 presents a detailed analysis of the background of institutional theory and its developmental stages through different time periods. This begins from the 1800s to the 2000s. There is a brief account of early contributors to institutional theory, Max, Durkheim and Weber in the 1880s. Section 2.3 gives an account of empirical studies with the pioneers of the theory and the conceptualisation of the three pillars, regulative, normative and the cultural-cognitive and their manifestation in firms. Section 2.4 is an explanation of formal and informal institutions, what they are and the role they play in the study. The section also gives details of figure 2.1, the proposed conceptual framework of the study detailing the factors that are likely to influence the service of MNOs in Zimbabwe. Section 2.5 discusses the proposed Conceptual Framework of the study.

The following sections discuss the elements of the proposed conceptual framework: Section 2.6 discusses the regulatory factors; Section 2.7 covers infrastructural factors; Section 2.8 discusses socio-cultural factors, and finally, 2.9 summarises the chapter.

According to institutional theory, firms operate under three types of pressures (as discussed in this chapter), *coercive*, *mimetic* and *normative* pressures which dictate the type of service offered to subscribers. These pressures are experienced by the MNOs who must adhere to these demands for survival even if that impacts on their service to customers. The coercive pressures are exerted by government and other organisations on which the MNOs depend (DiMaggio and Powell 1983). These powerful organisations expect MNOs to obey and to incorporate norms, values, or institutional requirements (Fuenfschilling, and Truffer 2014). Mimetic pressure emanates from another organisation when an MNO, for instance, believes that the other organisation is doing better in the market and then copies that organisation's way of operating (DiMaggio and Powell 1983). Normative pressure, identified by DiMaggio and Powell (1983) is pressure resulting from professionalism. Normative pressure relates to MNOs adhering to the norms of the profession to which they belong. ITU, in the case of telecommunications enacts appropriate norms which are communicated to MNOs that require organisations to follow norms of the profession. All the three types of pressure are witnessed by MNOs and can influence the service they offer to their subscribers. The elements of the pressures that are likely to influence the service are included in the conceptual framework.

North (1990) defines institutions as rules of the game in a society or humanly devised constraints that shape human interaction. North (1990) further explains that institutions reduce uncertainty by providing structure to everyday life. North asserts that institutions are constructs of the human mind, that we cannot see, feel, touch or even measure. For example, culture is an institution, but we cannot touch or feel it. North is one of the most renowned institutionalists and his 1990 definition of 'institution' has been incorporated into some of the definitions by other institutionalists making his definition popular. Tonyan et al., (2010) adding to North's definition state that institutions impact cognitive and ethical considerations that shape human judgment and behaviours. The authors assert that institutions influence an individual's decision making. This is done by indicating and determining which norms and behaviours are acceptable in society. These behaviours will, in turn, influence organisational behaviour by constraining and defining what actions are acceptable and supported within and between organisations.

On the other hand, Scott (1995) defines institutions as dynamic, sense-making frames that guide actors and organisations to behave in appropriate ways. Scott came up with three pillars, the regulatory, normative and cognitive pillars that anchor an organisation. In his seminal work, Scott (2012) refined his previous definition and defined institutions as social structures that have attained a high degree of resilience. Scott (2012) adds that institutions are composed of cultural-cognitive, normative and regulative elements. Scott (2012) asserts that these together with associated activities and resources, provide stability and meaning to social life. Institutions are transmitted by various types of carriers, including symbolic systems, relational systems, routines and artefacts. Institutions operate at multiple levels of jurisdiction, from the world system to localised interpersonal relationships. Institutions connote stability but are subject to change processes, both incremental and discontinuous (Scott, 2011).

Scott and North are both renowned institutionalists whose contributions to institutional theory are suitable for this study. The study adopts Scott's (2011) comprehensive definition and North's (1990). Therefore, the study will go by these authors' views of institutional theory. North (1990) defined institutions as rules of the game that shape the organisation's behaviour. North divided these institutions into two, formal and informal rules that organisations are expected to comply with. Informal rules relate to culture, and these embrace the norms and values in society. On the other hand, Scott (1995) sees institutions as different elements in society. Scott, (1995) included, the regulative, normative and cultural-cognitive elements that are found in a society and called these elements "pillars of institutions". The three pillars shape this thesis and have been used on both conceptual frames, that is, the proposed and the final. At the same time, North's formal and informal institutions have been used in this study.

2.2 Background of Institutional Theory

This section presents the background of institutional theory. There have been several developments in institutional theory from the time it was first conceptualised to the present. The power of earlier institutional works should never be underestimated because these shape the course of subsequent developments in institutional theory and hence their inclusion in this study.

"Men make their own history, but they do not make it under circumstances chosen by themselves, but under circumstances directly encountered, given and transmitted by the past" (Karl Marx (1852/1963)).

Institutional theory has gone through different developmental perspectives, with contributions from several scholars, improving, critiquing, building and adding to the writings of earlier institutionalists. This section gives an account of contributions to institutional theory by various institutionalists and highlights elements applicable to this study.

The roots of institutional theory date back to the 1880s, with theories from earlier institutionalists, Marx (1867, 1848); Durkheim (1893, 1895); and Weber (1904, 1930). Durkheim chose to analyse a primitive religion explicitly defining primitive in an evolutionary sense. This implied that religion was not different from other components of the action system at either the cultural or social levels. Durkheim studied totemism, which is part of primitive beliefs which other scholars believe was outstanding at the time. Marx, on the other hand, attempted to integrate technological change with institutional change by pioneering an integration of limits and constraints of technology with those of human organisation.

Marx and Durkheim treated social sciences the same way as natural sciences. However, Weber (1930), argued that in the social sciences both the researcher and the researched attach meaning to events rather than having humans treated like objects used in natural sciences. Weber (1930), and Selznick (1949) took a different direction from their predecessors by emphasising, instead, the importance of institutions in instilling value in the firm's behaviour. They named the process of instilling value, institutionalisation. Weber (1930) is perhaps the most acclaimed contributor to institutional theory in Europe, with contemporary analysts of institutions claiming his guidance as genius. Weber (1930) explained the reasons for bureaucracy, referred to as structure, in what goes on in the firm. He attributed that to the influence of culture within society that determines the firm's behaviour.

Weber (1930) and Selznick (1949, 1957) studied how societal structures influenced the behaviours of firms. They observed that when a firm behaves according to society, the firm has been institutionalised. In his empirical analysis of organisations and the institutional environment, Selznick (1948, 1949, 1957) observed that societal factors

influence the firm's behaviour over time. Selznick added as the firm exists, its behaviour will depict that of the society it serves but that that was a long process for a firm to get to.

The works of Weber (1904; 1930) and Selznick (1949) motivated Parsons (1960) to further examine the consistency of a firm's goals with those of society. Parsons (1956) contributed to Weber's and Selznick perspectives by his emphasis on how institutions function to integrate organisations with other organisations in society through universalistic rules, contracts and authority. That means organisations having common rules, contracts and authority in their existence and the consistency of organisational goals with those of society.

This study seeks to investigate phenomena from human participants through their interaction with the researcher (external context). Therefore, Weber's theory has implications for this study because in this study there is the interaction of the researcher and the study participants through interviews. Weber's theory is supported by Berger and Luckman (1967) who argued that social reality is human construction, a product of social interaction. They regarded language and cognition mediated by social processes as crucial to how actions are produced, repeated and come to evoke stability in meanings. This, according to institutional theory, is related to the cultural-cognitive pillar (discussed under the three institutional pillars). Similarly, Durkheim and Parsons, Berger and Luckman emphasised the creation of shared knowledge and belief systems rather than the production of rules and norms. Their emphasis was on the cultural-cognitive aspect.

Selznick (1948, 1949, 1957) marks the long history of organisational analysis of organisations and institutional environments. While Selznick acknowledges the rational view that organisations are designed to attain goals, he also notes that the formal structures can never conquer the non-rational dimensions of organisational behaviour. Selznick argues that individuals do not act purely based on their formal roles and that organisations do not act purely based on formal structures. Selznick's perspective points to informal structure (informal institutions) and that includes culture that still exists in present day institutional theory.

2.2.1 Developments of Institutional Theory and its link to the study

The contribution of earlier institutionalists is important for this study because it incorporates the earlier debate on institutional theory as well as later and current contributions. Even though new scholars think that at the time that Durkheim wrote his contributions, they were outstanding, they now think less of his studies. However, for this study, Durkheim's theory still applies in some parts of SSA. Totemism and some rituals highlighted in Durkheim's studies still exist in African society and yet some scholars dismiss them as bygones. There is the need to explore SSA as different from other continents. Durkheim's belief systems and the symbolism involved in ritual actions constitute the religious framework and the value system (Parsons 1972). That is likely to be found in the context of Zimbabwe. Durkheim's theory emphasised collectivism which is in line with SSA belief of "Ubuntu" and is relevant in the African environment.

What influences the service provision of MNOs in, say, Europe, could be different from what influences the service provision of MNOs in Zimbabwe. Bureaucracy that Weber refers to as the structure or process of working or making decisions, commonly called red tape, applies to this study. In telecommunications, bureaucracy is likely to be experienced by MNOs in the issuing of licences where there could be a waiting period. It could also be that the process itself might go through several stages. This process might lead to delays that are likely to affect the operations of the firm and ultimately the service provision. The behaviour of the organisation will be seen as such, caused by the environment in which it provides the service. This could also give way to the birth of an informal institution, for example, bribes, to break red tape. Parsons' theory (1956) refers to institutions that integrate organisations with other organisations. In telecommunications, firms are integrated with other organisations when they answer to the same authority, where they observe the same rules and regulations. For example, regulatory agencies and the International Telecommunication Union (ITU) bring telecommunications firms under one umbrella.

The interaction can have some positive or negative outcomes which, in a way, could be reflected in the service provided by the MNOs. The telecommunications firm operates within a culture, in which case the company must take cognisance and adapt to the cultural environment under which it operates. Telecommunications firms must

be institutionalised within the culture of their environment. Overall, the concern of earlier institutionalists was about instilling values, and the process of instilling values is institutionalisation (Weber, 1930; Selznick, 1948; 1949; 1957). In the African context Zimbabwe has three main tribal groups, European, Ndebele and Shona with the smaller “sub-tribes” having been incorporated into the two main tribes. Culturally these smaller tribes identify themselves as different from the main (World Directory of Minorities and Indigenous Peoples 2021).

Telecommunications firms should integrate with society in terms of cultural values. In Africa, this is crucial because the continent has, apart from languages, rituals that are not found in other continents. For example, totems, and some religious practices that society takes seriously.

2.2.2 Institutional Theory developments in the 1970s/1980s

In the 1970s and 1980s institutional scholars began to focus on the development of the institution simultaneously with that of the firm, stressing more on the *process* of institutionalisation than the previous institutionalists. While Parson (1960) was influenced by the works of Weber (1930) and Selznick (1949) to study the consistency of a firm’s goals with those of society, the 1970s and 1980s began to focus on the boundary between society and the firm. The focus then changed to the process of instilling values in firms. This era witnessed the emergence of a new approach to institutional analysis with contributions from Meyer and Rowan (1977) and Zucker (1977). These authors highlighted the role of culture and cognition in institutional analysis. The authors started to develop the institution simultaneously with the firm. There was then a thin boundary between the institution and the firm. Unlike their predecessors, who were keen on instilling values these new institutionalists were more interested in how values were instilled in the firm. The stress was more on the process of institutionalisation than the previous era institutionalists who were more concerned about values and not about how these values were bestowed.

Zucker’s (1977) views were that the institution was a social pattern while institutionalisation was the process through which firms attained that pattern. Following Zucker’s approach were the works of Meyer and Rowan (1977), DiMaggio and Powell (1983), and Meyer and Scott (1983) who identified themes within that social pattern. Meyer and Rowan conceptualised that firms had to conform to certain

rules within society for them to be legitimate. That meant that firms were to conform to rules prescribed by society using specific ways of pursuing those rules (Meyer and Rowan 1977). Basing their conceptual framework on Meyer and Rowan (1977), DiMaggio and Powell (1983) observed that firms tend to behave the same way due to pressure from the institutional environment. DiMaggio and Powell (1983) called that behaviour isomorphism which means that the actions of firms are similar.

Meyer and Rowan (1977) on the other hand emphasised the role of culture in the transmission of religion, language, norms and values of a society from one generation to the next, from a macro perspective. They stressed the role of modernisation in rationalising the taken-for-granted rules which lead to isomorphism in the formal structures of organisations. That means organisations must conform to the requirements of external environments to be regarded as legitimate. DiMaggio and Powell (1983) further focused on isomorphism from the societal level to the level of organisational fields, emphasising coercive, normative, and mimetic sources of isomorphism.

According to DiMaggio and Powell (1983) coercive isomorphism refers to the power that is exerted on firms to comply with government agencies regarding policies, laws, rules and regulations. For instance, MNOs may be asked to cede, say, 10% shareholding to government and that failure to comply would lead to refusal of licence to the MNO. Mimetic isomorphism is when a firm is faced with uncertainty and copies (mimics) another firm in the same industry that is performing well in the sector. An MNO in Zimbabwe, that is not sure of the environment may model itself with, Econet because this MNO has been the most successful in the country. Finally, the normative isomorphism refers to professional bodies like ITU, PORTRAZ and Southern Africa Telecommunications Association (SATA) which are professional bodies to which MNOs are members. MNOs must abide by the dictates of these organisations regarding the way the firms behave in the profession. DiMaggio and Powell's approach gave way to a plethora of empirical analysis of isomorphism.

DiMaggio and Powell (1983) assert that the effects of cognition are mainly viewed through mimetic isomorphism. That is focusing on mindless behaviour in response to cultural rationalisation. Zucker (1977), on the other hand emphasised culture from a micro perspective, the taken-for-granted nature of institutions and the role of cultural

persistence as a measure of institutionalisation. Zucker (1977) demonstrated the powerful ways in which individuals actively interpret role structures imposed by organisations. Her study showed that subjects attribute actions emanating from individuals acting in an organisational capacity with more credence and legitimacy than actions emanating from individuals acting alone. For example, interviewees in this study will be answering questions in their organisational capacity, and not from an individual perspective. They will be representing those organisations.

The institutional theory of the 1970s and 1980s is relevant to this study because it stresses the importance of the cultural features of environments. This includes language, ethnicity, tribe and religion that apply to the community served by the telecommunications firm. Firms are expected to be institutionalised within the society they serve. Organisations are urged to consider their technical environment as well as their institutional environment. According to institutional theory, technical demands, available resources and institutional forces form the basis of structure inside the organisation and organisational field (DiMaggio and Powell 1983).

The organisational field is the environment that enables the interaction and participation of constituent members based on three isomorphic forces: coercive, mimetic and normative isomorphism. States/governments are likely to exert coercive pressure on MNOs in terms of observance of the rules and regulations governing their operations. On the other hand, organisations like ITU, and SATA are likely to exert normative pressure on MNOs to abide by the professional standards of these organisations for them to be legitimate (Meyer and Rowan, 1977; DiMaggio and Powell, 1983; Meyer and Scott, 1983).

Finally, mimetic pressure exerted on the MNOs to be culturally institutionalised could be experienced by MNOs operating in Zimbabwe, and in turn, influence the service they provide to the consumer. In his research on corporate social responsibility in the telecommunications sector, (Sutherland 2016) called on the telecommunications firms to abide by the regulations that are in place. These include professional body rules and regulations set by the telecommunications bodies like the ITU for the telecommunications firms to be culturally institutionalised. Zimbabwe telecommunications firms have also to observe the regulations and rules of the Southern Africa Telecommunications Association (SATA) to which they are members.

2.2.3 Institutional Theory developments in the 1990s/2000s

The 1990s saw notable institutional theory contributions from North (1990) and Scott (1995), with North seeing institutions as establishing the rules of the game that shaped the behaviour of firms. North (1990, 1995) developed a two-dimensional view of institutions, via formal and informal rules. Formal rules include written down regulations, laws and policies enforced by the government. The formal institution, according to North, has clear and specific rules and standards that firms within a society must comply with. That in turn shapes how the institution and organisation interact with one another. On the other hand, informal rules are referred to as cultural where norms and values include unwritten cultural norms and values that are rooted within society (North 1990).

According to North (1990) informal rules are the foundation on which formal rules rely to function. Formal institutions are a crystallisation of informal institutions that co-evolve through the operation of organisations. Formal and informal groups from households, villages to networks, firms, parties and governments (North's 1990). For instance, for any government to come up with regulations or political rules, they must consider the cultural aspect of their people (North 1990). Culture has been seen as being the transmission from generation-to-generation of elements like norms and values, language, and religion of a society. Adding to this assertion is Hofstede (1991) who sees culture as a collective programming of minds of a particular set of people.

North's (1991) conceptualisation of institutions states that institutions present constraints which provide a structure for political, economic and social interactions in a society: *institutions create order and reduce uncertainty in exchange; institutions define and determine individual and group choice sets and transaction and production costs; and lastly, that the incentive structure in any economy is a function of institutional dynamics to indicate either growth, stagnation or decline*. Ahmad (2003) elaborated on North's conceptualisation that informal rules correspond with the cognitive-cultural perspective. That means, informal rules incorporate both cognitive and normative perspectives. Hothi and Pedersen (2012) also elaborate on North's assertion that institutional approaches differ in their level of analysis, conceptualisation and explanatory power in relation to the research situation. These authors believe that

each research situation requires an institutional approach that is commensurate with its research problem.

North (1990) and Scott (1995) supported a complementary view where research on the impact of institutions investigates both formal and informal components. Peng et al., (2009) proposed that while formal and informal institutions combine to govern firm behaviour, in situations where formal constraints are unclear or fail, informal constraints will play a larger role in reducing uncertainty. Informal will be there to provide guidance and conferring legitimacy and rewards to managers and firms.

Scott's (1995, 2008) contribution to theory was to further North's (1990), DiMaggio's and Powell's (1983) Meyer's and Rowan's (1977), contributions. Scott (1995, 2008) observed that institutions are different elements within society and proposed the regulative, normative and cultural cognitive pillars. Scott (1995, 2008) believes that the three pillars, together with associated activities and resources provide stability and meaning to social life. He states that the regulative component comprises systems of setting rules and monitoring, to make sure that the actors follow the rules and if not punishment for disobeying the rules is imposed. These are laws and regulations and enforcement procedures that are sanctioned by the State (government). Legal institutions such as the judiciary constrain and regulate behaviours in a society through the coercive process of rule-setting, monitoring and sanctioning violators (Kamoche and Harvey 2006). In a macro sense, these laws are formalised and specify appropriate conduct in society (Scott 2001).

The institutional environment also contains social and cultural norms that define social reality (DiMaggio, 1988; Scott, 1987; 1994). Norms specify how things should be done thereby defining both the goals/objects and the acceptable strategies to reach these targets (Scott 2001). The normative dimension comprises of institutions, and according to Scott (1987), norms originate from public opinion, educational systems, professions, ideologies and certification and accreditation bodies. Therefore, the organisation and its environment interlink such that the structure and behaviour of the organisation reflect the norms of the environment from which it operates.

The cultural-cognitive dimension includes the accepted beliefs and values shared among individuals through social interactions that guide behaviours within a society. This pillar encompasses the common or shared beliefs that help interpret the meaning

of events in a society (Barley 1986) and ensures legitimacy for organisational practices within the cultural setting. This is an indication that behaviour is not only guided by general culture, but also by specific social institutions that individuals and organisations encounter (Kamoche and Harvey 2006).

The 1990s witnessed the creation of yet another approach to institutional analysis which posited institutional logics as defining the content and meaning of institutions. Although this study does not incorporate institutional logics, it is necessary to mention institutional logics as part of the institutional theory's development. Institutional logics was conceptualised after Friedland and Alford's (1991) seminal essay and the empirical work of Haveman and Rao (1997), Thornton and Ocasio (1999), and Scott et al., (2000). The institutional logics approach, whilst it shares Meyer and Rowan (1977), Zucker (1977) and DiMaggio and Powell (1983, 1991) view on how cultural rules and cognitive structures shape organisational structures. Institutional logics and the earlier writers (Meyer and Rowan 1977; Zucker 1977; DiMaggio and Powell 1983) differ. The difference is that institutional logics no longer focuses on isomorphism. Instead, institutional logics focuses on the effects of differentiated institutional logics on individuals and organisations in different contexts that include markets, industries etc. The institutional logics approach provides a link/bridge between the macro structural perspective of Meyer and Rowan (1977) and DiMaggio and Powell (1983) and Zucker's micro process approaches.

The 2000s saw yet another institutional theory, (Lawrence and Sudday, 2006, 2011) after the re-examination of the three pillars debate. Scott (2008) observed that institutional theory had made progress since the works of Meyer and Rowan (1977), Zucker (1977), DiMaggio and Powell (1983). However, Scott (2008), observed that the unity of the three pillars seemed to be overstated. Scott (2005) states that the institutional environment is not monolithic, adding that different institutions are present within the environment, not in unison, but might be going in different directions. Each of the three pillars might be opposite, thus contradicting one another (Scott 2005) and that explains the dynamism of institutional theory. That is the debate that led to criticism of the theory, leading to yet another perspective, that of institutional work (Lawrence and Suddaby 2006, 2011). Institutional work examines the practices of individual and collective actors aimed at creating, maintaining and disrupting institutions (Lawrence, et al., 2009). These authors argument is that institutional work

can contribute to bringing the individual back into institutional theory. The individual would help to re-examine the relationship between agency and institutions and provide a bridge between critical and institutional views of organisation. Lawrence et al., (2010) conclude that that devocalises agency by shifting attention to the small worlds of institutional resistance and maintenance in which institutionalisation and institutional change are enacted.

Institutional theory of the 1990s/2000s is relevant to this study because the three pillars that hold an institution have important implications for this study. The elements of the regulative, normative and cultural-cognitive pillars are used in the study to analyse the institutional environment of MNOs. North's (1990, 1995) formal and informal institutions are mere classifications of the components of Scott's three pillars. The study combines North's two dimensions of formal and informal institutions and components of the three pillars. Peng et al., (2008) add that Scott's and North's perspectives are complementary. Table 2.1 shows North's two-dimensional forms of institution and Scott's three pillars.

Table 2.1 Formal and informal institutions

Degree of formality (North, 1990)	Examples	Supportive Pillars (Scott, 1995)
Formal Institutions	Laws	Regulative
	Regulations	
	Rules	
Informal Institutions	Norms	Normative
	Cultures	Cognitive
	Ethics	

Source: Adapted from Peng et al., (2008)

Scott's idea of the three pillars was criticised. Scott (2014) argued that institutional pillars were proposed as analytical tools to enable investigators to identify what ingredients were at work in different situations or contexts. This study uses the three pillars as an analytical tool to analyse the factors influencing the service offering of MNOs in Zimbabwe.

The reviewed literature is generic and does not consider the dynamic influences in the African context. The service offered by MNOs in Zimbabwe is influenced differently from similar organisations in the western world. In the African context, political institutions provide regulative mechanisms for the telecommunications companies. Formal institutions, like the political institution provide regulative mechanisms such as legislation and democratic systems for the MNOs. However, political institutions also often promote bureaucratic corruption, provide perverse market incentives and as a result, distort resource allocation (Mbaku 2004). Legislation in Africa affects not only internal operations and services but also external activities such as antitrust. For example, in the 1980s Ghana nationalised foreign firms because of antitrust concerns (Ahiakpor, 1985). In Africa formal institutions dominate the modern context and influence industrial activities in urban centres through their regulatory function. Since this makes up a small amount of the economy, (urban centres like Nairobi, Johannesburg, etc) more attention should be paid to informal institutions (Godfrey 2011).

In the reviewed literature, isomorphism is likely to be found, with telecommunications firms copying one another because of the pressure exerted on them by the political environment. Pressure might also be or from within the MNOs as the MNOs get involved in bribery, for example copying their competitors who are involved. In the end the MNOs become isomorphic because of the pressures from other MNOs. In the African context coercive power is frequently used. For instance, some countries have in the past ordered the shutdown of the Internet and social media during presidential elections. MNOs have been threatened with the loss of licences for noncompliance. This is unlikely in democratic states in the West. Such pressure forces organisations to adapt to survival situations (DiMaggio and Powell 2008). Bureaucracy that the early institutionalists state as giving structure to an organisation could, in fact, be creating informal activities by the firms. All these and more are likely to be experienced in this study. The effect of bureaucracy for instance may result in bottlenecks, that is, red tape and to avoid that, institutions may look for easier ways of avoiding those delays. They would then engage in unlawful activities. However, if that is what society sees

as remedying problems, to that society it would be legitimate although illegal. All these are likely to influence the service provided by MNOs to subscribers.

Scott's conceptualisation of the three pillars that hold an institution has important implications for this study. The elements of the regulative, normative and cultural-cognitive pillars will be used to analyse the institutional environment of MNOs.

The above literature highlights important features that need further discussion, namely Scott's three pillars and legitimacy that is a component of any organisation's existence.

2.3 The Conceptualisation of the Three Pillars

This study incorporates Scott's three institutional pillars: the regulative, normative and the cultural-cognitive pillars. These pillars manifest themselves in firms according to what happens in each pillar in relation to the organisation. These pillars are likely to influence the service provision of MNOs in Zimbabwe. The institutional environment combines the macro and micro levels, with the macro representing government and government agencies, while the micro represents lesser echelons of power.

Institutions may be supported by one pillar but due to change of circumstances, and the passing of time, they get sustained by different pillars. That could mean that the regulative, normative and cultural-cognitive pillars are present in the institutional environment of an organisation (Scott 2014). It is not necessary that all three pillars are present in the institutional environment. The three might be present in the environment but at different strengths, with one pillar being dominant in the environment (Elbanna 2019). However, the normative and cultural-cognitive pillars are a conglomerate of soft-power influence and are weapons of choice in contemporary organisations (Scott 2005). In this case, that is befitting for the MNOs environment.

Drawing insights from DiMaggio and Powell, investigating the e-government system in South Korea, Kim et al., (2009) found that the three pillars had all impacted in the influence of e-government in South Korea. Over time, this changed because the regulatory pillar exerted more pressure, using coercive power to force the government sector to adopt the system. Figure 2 - 1 shows the conceptual framework incorporating the three pillars of an institution. The application of the pillars in the study is explained below.

2.3.1 The Regulative Pillar

The regulative pillar which houses the regulatory authority uses coercive power on organisations, and in this case the MNOs. The power exerted on organisations is to make them conform to the telecommunications regulations set by the government. The regulative pillar includes rules, incentives and sanctions activities that enforce acceptable behaviour of institutions. For MNOs to be considered legitimate, they must abide by the legal dictates of the regulative pillar which outlines rules, incentives and sanctions. The regulative pillar's coercive power influences how organisations work both at macro and micro levels (Scott 2011; Thornton et al., 2012).

DiMaggio and Powell (1991), Scott (2011) assert that rules, regulations, monitoring and sanctioning activities affect organisations by means of coercive actions. As seen in the conceptual framework, the elements of the regulative pillar affect the organisations by encroaching into the operational environment of organisations, and hence their effect on the service provision of the MNOs.

2.3.2 The Cultural-cognitive Pillar

The cultural-cognitive pillar is where compliance is taken for granted and shared understanding in society takes place (Scott 2014). The shared conceptions are what constitutes the nature of societal reality and the frames through which meaning is made (Scott 2014). In the case of MNOs, cognitive structures and symbols shared by the actors form the cognitive element of the telecommunications firms. The cultural construct of institutional theory is based on the willingness of individuals and groups. In this case, MNOs must follow the preordained acceptable patterns and behaviour prescribed by society or a subsection of society, that is subculture (Kamoche and Harvey 2006). This is in tandem with Scott (2014, 2011) who states that the cultural-cognitive pillar provides cognitive frames, templates, or a set of collective meanings. These help the organisation achieve legitimacy when it mimics the structure or actions of other organisations. DiMaggio and Powell (1991); Scott (2011) assert that organisations apply the mimicry mechanism to gain legitimacy and to survive in the institutional environment. When there is uncertainty in the institutional environment, organisations tend to apply mimicry mechanisms (DiMaggio and Powell, 1991; Scott, 2014).

The conceptual framework of this study shows the significance of the cultural cognitive pillar in the institutional environment of MNOs in Zimbabwe

2.3.3 The Normative Pillar

DiMaggio and Powell (1991) define the normative pillar as the collective struggle of members of an occupation to define the conditions and methods of their work. This is done to control the production of the producers and to set up a cognitive base and legitimation of their occupation autonomy. In this study, Zimbabwe's MNOs' service provision is influenced by professional organisations such as ITU and SATA.

Scott (2014; 2011) states that the normative pillar comprises norms and values. Values represent compliance of individuals to existing structures and behaviours. On the other hand, norms explain how things should be done. That affects the MNOs structure and the way they provide the service to subscribers. Overall, the interaction of one department with another within the organisation externally exerts normative pressure on the entire organisation's institutional environment and in this case the service provision of MNOs is likely to be impacted.

2.3.4 Institutions in the African Context

Institutions have been defined universally and culturally. An institution is defined as the shared beliefs, values and behavioural norms of a group (Hofstede 2001). Africa has more than 1,000 ethnic groups and has more diverse groups than any other continent (Awedoba, 2005; Collier, 2007). The universal definition does not seem to address culture in the African context. The day-to-day lives of individuals in Africa are influenced by ethnic beliefs, traditional and tribal practices and differ immensely from practices of other continents. The definition by Hofstede (2001) does not seem to accommodate the institution in the African context. Institutions in Africa, unlike other continents should be viewed differently because of the heterogeneity of the African population. In the African continent there are tribes, ethnicity, totemism, diverse types of religion and languages due to the homogeneity of its society (North, 1990 and Scott 2014). These factors should be considered when using institutional theory to analyse a phenomenon in the context of Africa.

In their study, "Knowledge in the African Context: An Institutional Perspective", Kamoche and Harvey (2006) employed institutional theory to examine how

multinational companies in Africa could combine their international and local knowledge in terms of norms and values of people. SSA is known for its collectivism as opposed to individualism that is found mostly in the West. SSA has adopted a pattern of behaviour that helps integrate members of a society into strong, cohesive in-groups (Mbigi and Maree 1995). “Ubuntu” is a sociocultural institution which is in Zulu and means “I am who I am through others”. “Ubuntu” which is the understanding that individuals are shaped by the society in which they belong. Combining “Ubuntu” with “collectivism” of the west would make a better understanding of the continent’s institution.

The next section discusses institutional factors which are constituents of the regulative, normative and cognitive-cultural pillars that are in the MNOs’ environment. These are likely to influence the service offering of MNOs. The literature shows dominance of the corruption factor. This will be discussed within the factors to be analysed. At the end of the discussion, a conceptual framework for the study is given.

2.4 Formal and Informal Institutions Influencing the Service provided by MNOs

Institutions influencing the service provision of mobile service provision fall into two categories, formal and informal institutions (North 1990).

Informal institutions are enduring systems of shared meanings and collective understanding. While not codified into documented rules and standards, informal institutions reflect a socially constructed reality that shapes cohesion and coordination among individuals in a society (Scott 2005). Contributing to the definition of informal institutions are North (1990) and Peng et al., (2008) who state that culture is an important reflection of a country’s informal institution. In addition to that, Fu et al., (2004) assert that a country’s culture constitutes created and learned standards for perception, cognition, judgment, or behaviour shared by members of a certain group. This is echoed by Reed (1996) who states that culture embodies societal members’ norms and values by defining, for instance, what actions are considered ethical, acceptable and desirable. On the other hand, formal institutions, as the name implies, are formal.

Formal institutions represent structures of codified and explicit rules and standards that shape interaction among societal members (North 1990). Formal institutions promote order and stability by providing authoritative behavioural guidelines and enabling the formation of expectations regarding behaviour (Scott 1995). Unlike informal institutions that change incrementally as culture is transmitted from generation to generation, formal institutions are more malleable in that they are a product of human agency (DiMaggio 1988). Formal institutions begin as solutions to societal problems. These solutions diffuse until they crystallise into established rules and standards that influence subsequent behaviours (Tolbert and Sucker 1996). Both formal and informal are found in the SSA MNO's environment and are likely to influence the provision of services.

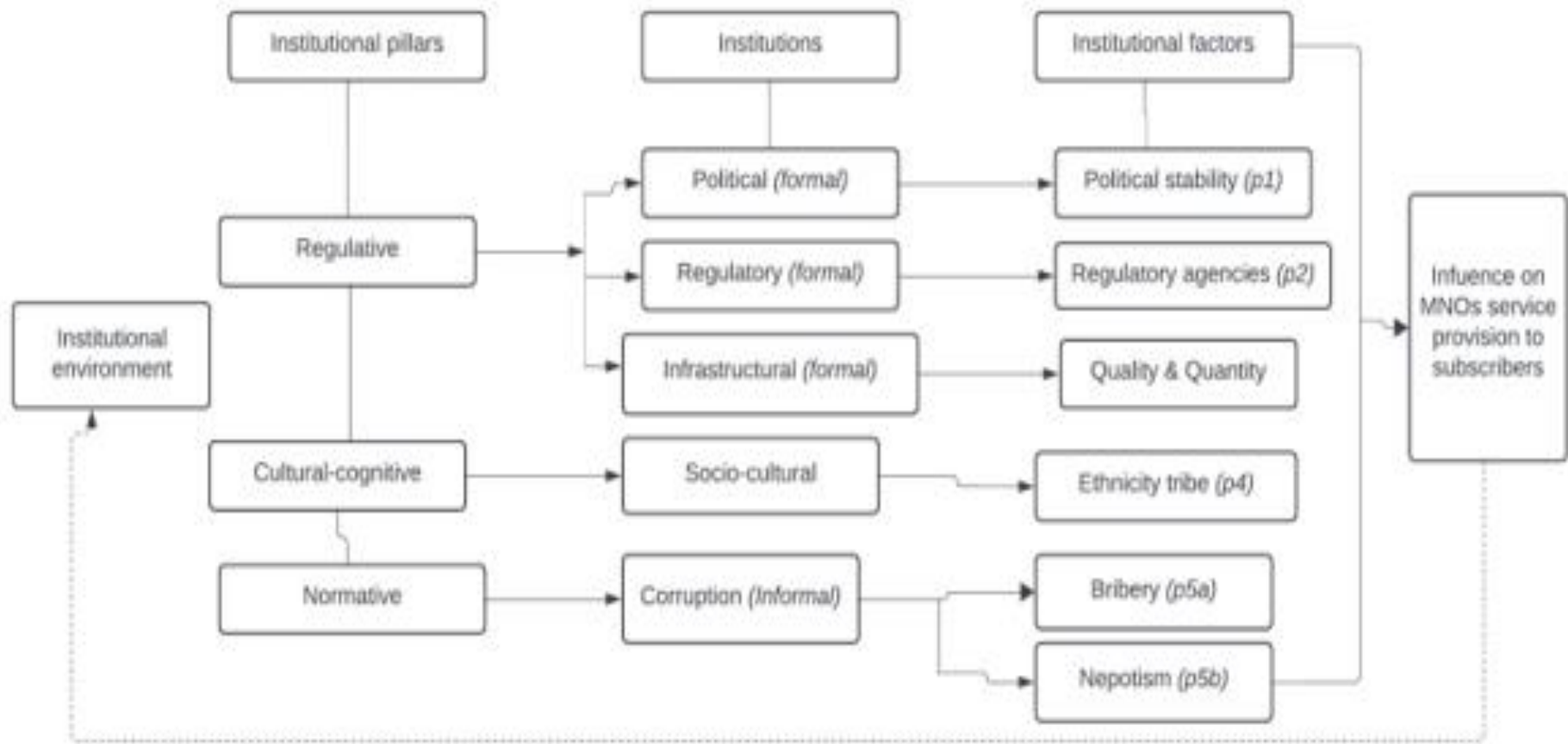


Figure 2.1: Proposed conceptual framework

Source: Author – adapted from Scott (1995, 2008, and 2014) and North (1990 and 1995)

Figure 2.1 is the Proposed Conceptual Framework showing the formal and informal institutional factors. These institutional factors are likely to influence the service provided by MNOs in Zimbabwe. The regulative pillar components, political and regulatory factors can make rules, reward or punish MNOs (Scott, 2014). The pillar has the power to refuse MNOs from acts that the regulatory body feels the MNOs should not do. Research has shown that countries with a stable political environment, that is, democratic systems provide room for MNOs to invest in, that is, attract investment (Nielsen et al., 2017). This study will find out if the environment in Zimbabwe is conducive enough for firms to do business. At the end of the discussion of each factor, a proposition is made regarding the discussed factor, its likelihood of influencing the service.

The next section discusses formal institutions which comprise political factors, regulatory factors and infrastructural factors.

2.5 Political factors – Political Stability

Political factors are formal institutions (North 1990) that reside within the regulative pillar (Scott 2008). These factors comprise of government and government agencies whose responsibility is to ensure governance stability, protect lives and properties (Globerman and Shapiro 1999). Government agencies include the police and courts. Governments use these to command or control behaviour of others. These are also act as prerogatives to allocate resources, impose taxes and enforce regulatory controls (Heilbroner 1985). The political environment is one component of the general environment which plays host to every organisation (Omonona et al., 2020). In their study of the relationship between political affiliation and performance of mobile telecommunication organisations in South Africa, Omonona et al., (2020) found that political affiliation significantly relates to financial performance of telecommunications companies.

Omonona et al., (2020) recommend that the negative interference by the political class should be discouraged or minimised; frequent cabinet reshuffles or changes in the government should be reduced. Political integration and stability of the government should be assured. Contributing to the argument, Ufere et al., (2020) found that in SSA severe and sudden political disorder is common resulting from military coups, (for example, Zimbabwe in 2017 had an unanticipated removal of the president). Irregular

changes in government, sectorial and religious conflicts, political uprisings, and ethnic violence were prevalent. A business environment characterised by political instability and constant policy surprises and reversals is likely to deter investment (MNOs are no exception). These may result in poor firm performance (Brunetti, et al., 1998; Huarng, 2016). Pellegrini and Gerlagh (2008) in their study of corruption determinants also found that political instability may lead to harassment, crime, and rent-seeking, all of which destabilise business. These authors looked at political problems on general business effectiveness but did not examine the effect caused by political disorder on the service provided by MNOs.

Andonova and Diaz-Serrano (2009) argue that the development of telecommunications infrastructure depends on the quality of the country's political institutions. This shows that whatever primarily goes on with the telecommunications infrastructure is a product of a country's political environment. Researchers in SSA have found that in Africa, companies in the telecommunications sector often use improper contributions to high-ranking politicians or political parties to achieve influence (TI 2018). Several big political corruption scandals involved telecommunications companies using political influence to win a contract in the rollout of mobile phone infrastructure or services (Dolan 2012). It is not surprising that Africa has perpetual infrastructural problems since deserving prospective investors who have no political connection are unlikely to win tenders.

This study explores the influence of political factors on the service provision of mobile telecommunications providers. Businesses require a stable political environment to operate successfully. Ineffective, politically oriented institutions can cause poor regulation and excessive government intervention in business operations. In addition, the monopolistic provision of resources usually leads to an increase in corruption (Peyton and Belasen 2012). In contrast, countries with more democratic governments have less regulation and are more attentive to consumers' interests (Djankov, La Porta et al., 2002). Djankov, La Porta et al. (2002) studied entry regulations in 85 countries and found that countries with heavier regulations have higher corruption. Such countries have larger unofficial economies but not better quantity of public or private goods/services. Their study focussed on regulations pertaining to FDI and not countries operating within their countries of origin.

Multinational telecommunications firms with multiple mobile operators in Africa assess the political stability of a country and the regulatory environment before investing (Henisz and Zelner 2001; Duso and Seldeslachts, 2010; Kim et al. 2019). These researchers conducted research on political and regulatory factors influencing the FDI activities of telecommunications firms. Although their research was on the FDI telecommunications institutional environment, the same factors could influence local MNOs since they operate in the same environment.

During the same period, Luiz and Stephan (2012) conducted research on the main factors that telecommunications firms consider when deciding to invest in SSA. Luiz and Stephan (2012) found that political factors determined the length of investment by foreign telecommunications firms. These researchers added that unstable governments mean unstable policies and that successive governments could initiate different policies from those set by previous governments. Political factors and their effect on telecommunications have been documented in international business. However, the effect of political factors on domestic mobile telecommunications services is not clear. Researchers studied political and regulatory institutions in telecommunications and their study concentrated on the diffusion of telecommunications, including mobile telephony, for operators in foreign markets (Andonova and Diaz-Serrano, 2009; Cavusail, 2015; Nielsen et al., 2017). However, these studies seem to have ignored the effect political institutions might have on the mobile service provision for operators within the country. These operate within the same environment, the only difference being that international firms must meet certain conditions, but otherwise they are surrounded by the same environment. The findings of these authors shed light to what local firms are likely to experience in their institutional environment.

Mfuru et al., (2018) concluded that political interference was caused by inadequate power and responsibility separation between politics (and policy) and public administration. This confirmed the findings of Sutherland (2014) who examined the development of the South African telecommunications sector. Sutherland (2014) found that the government of the African National Congress (ANC) interfered in the running of the telecommunications sector. Sutherland (2014) did not show the consequences of political interference and the influence it has on the service offered by mobile telecommunications providers. This study examines the influence of the

political institution in the provision of mobile phone service to the subscribers. In some African countries, after the deregulation, liberalisation and privatisation of the telecommunications industry, when regulatory agencies were meant to be autonomous, governments still control the sector. This situation weakens the position of the regulatory agency. Giving autonomy to regulatory agencies in Africa would mean that corrupt politicians will not have the opportunity to get involved in using their positions for corrupt activities in the telecommunications sector. Research has shown that SSA countries have telecommunications regulatory agencies, but that governments are still holding on to the work that is supposed to be done independently by agencies. This supports Sutherland (2011) who states that the telecommunications sector rapidly became the subject of clientelistic politics and public revenues are too often siphoned off.

Available literature on political factors in telecommunications is about telecommunications companies investing in foreign countries. It is not clear how political factors relate to mobile telecommunications firms operating within countries. Daude and Stein (2007), Gani, (2007); have all conducted research on the FDI activities of telecommunication firms in Africa, especially on MNCs operating in Nigeria. Findings from Nigeria might highlight what to expect in the case of Zimbabwe. Nigeria has many ethnic groupings and significant cultural diversity, can be a point of reference for some of the cultural aspects of this study. Stein and Daude (2007) found that better institutions have overall positive and economically significant effect on FDI. They stated that some institutional effects matter more than others do. In terms of unpredictability of laws, they stated that regulations, policies and excessive regulatory burdens, government instability and lack of commitment were unpredictable. On the other hand, Gani (2007) found that the results provide strong confirmation that the rule of law; control of corruption; regulatory quality; government effectiveness and political stability were positively correlated with FDI. The same factors could still apply to MNOs operating within Zimbabwe since they also operate in the same environment.

Research on institutional factors in Africa has been conducted by Sutherland (2011, 2012, 2013, 2014). Sutherland conducted country-specific studies covering governance, corruption, political and regulatory factors in several African countries. His research covered South Africa, Nigeria, Kenya, Uganda and many more. This study is exploring factors impacting the service delivery of telecommunications

operators within Zimbabwe, and thus contributing to the research in SSA, and the SADC region.

Table 2.1 shows political factors that are formal (government) institutions that reside within the regulative pillar. These have the power to make rules and regulations governing the functions of firms. They reward or punish firms accordingly for the way they conduct business (Scott, 1995; Scott, 2014). In Zimbabwe government controls the telecommunication regulatory agency PORTRAZ. In a way, the telecommunications sector is under the grip of the government. The government is a key player in telecommunications, with a monopoly on fixed lines, and wholly-owns the mobile provider, NetOne. It is obvious that the government is likely to come up with policies and regulations that favour its firms, TelOne and NetOne. Zimbabwe has, for the past two decades had three MNOs and it is not known why there has been no new entrants in the past twenty years. The reason could be that the government is trying to cut down on competition, seeing that it has 100% ownership of landlines (TelOne) as well as 100% in NetOne.

The government's direct participation in the sector could mean that the government interferes with the smooth-running of the MNOs. There are always disputes on election results whenever Zimbabwe holds elections. These disputes are likely to affect the MNOs service provisions as happened when the state ordered the shutdown of all social media. MNOs who did not comply were threatened with the cancellations of operating licences. Between 2016 and 2019 the government ordered Internet shutdowns thereby negatively impacting the financial sustainability of telecommunications operators (Mare 2020). The MNOs responses to the government orders must be understood within the broader context of socio-political and economic factors. These orders are normally instituted during elections. This is likely to have influenced the service offering of providers, but this appears to have been ignored.

Omonona et al (2020) define political stability as the potential for sudden and significant change in the leadership policies or condition of a country. Chawdhury, (2016) sees stability as a prodigious problem caused by poor political culture effectiveness and the incompetence of political parties. Industries require a stable

political environment that enables them to meet their objectives, and the telecommunications sector is no exception. Available research on political stability is on telecommunications companies operating outside their marketing environment, that is, in foreign countries. A study conducted by Henisz and Selner (2001) on the effects of political institutions' quality on FDI telecommunications investment found that there was a positive and significant relationship between political stability and investment. It is not clear if the same applies to telecommunications firms operating within the country. Similarly, Burger et al., (2015) investigated the effect of political instability not only on telecommunications but on various sectors in the Arab world. It was found that political instability affects investment differently among sectors. These studies were not specific to firms operating within the country and hence this study specifically addresses mobile telecommunication firms operating within the country, Zimbabwe.

In the African context a case in point is that of Nigeria, Kenya and Ethiopia. Nigeria went through dictatorship regimes and coup attempts in the 1990s. In the 2000s, Nigeria had fragile stability, while Kenya experienced electoral violence. Both countries have been mentioned in corruption (Ayobami, 2011; Sutherland 2015). However, despite the political instability in these countries the two countries have had more investment than the more stable Ethiopia. That showed that political stability was a negative factor.

Political instability that is currently being experienced in Nigeria has affected the FDI telecommunications companies in that country due to Boko Haram, a militant/terrorist group. The group has continued to attack the telecommunications infrastructure in the northern and southern part of that country. It is reported that the telecommunications companies have responded to attacks on property and staff by abandoning their sites and the region. Political factors in Nigeria were found to be influencing the operations of FDI telecommunications firms in the country as revealed by the studies of Ma et al., (2013); Chidlow et al., (2015). It is not clear if the experience of FDI telecommunications companies would be the same as that experienced by local/ domestic telecommunications companies. These Nigerian studies help researchers in Africa to be aware of what they are likely to discover when conducting research on the continent. Whilst Zimbabwe is in the SSA, findings from Nigeria cannot be replicated in Zimbabwe. Zimbabwe is predominantly a Christian country, and Nigeria has a great

number of both Christian and Muslim populations and there have been religious clashes in the past. Besides, Nigeria is the most populous and diverse African country. The population of Nigeria is over six hundred million and over five hundred languages and diverse cultures. Zimbabwe's population is under 15 million and with only three main languages. The Nigerian political environment is also different from that of Zimbabwe in many aspects.

The Nigerian findings cannot be generalised to SSA. This study analyses the influence of political stability to establish its influence on the service provision of MNOs to subscribers in Zimbabwe. Burger et al., (2017) found that investment in non-tradable services was negatively associated with political stability, although the relationship is statistically insignificant. These studies were investigating factors in the operational environment of FDI telecommunications firms. Contrary to the findings of Burger et al., (2017), Dupasquier and Osakwe (2006) listed political instability as one of the impediments for FDI in Africa. It is not clear how political stability, and regulatory factors would influence the service provided by MNO's operating in the country. This study seeks to close that gap.

MNOs from Zimbabwe are likely to be influenced by the political climate prevailing in the country. Zimbabwe had a coup that removed the then president from office in November 2017. The country has also had civil unrest with opposition party supporters being incarcerated. It is not clear if that situation impacted the MNOs service provision in the country. The above literature shows that political stability/instability disrupts the operations of MNOs. What is not clear from the literature is how the political stability/instability influences the services offered by MNOs.

This study expects political factors described above to influence the service provided by MNOs in Zimbabwe and the following proposition has been established.

Proposition 1: Political stability influences the service provided by MNOs in Zimbabwe.

2.6 Regulatory Factors – Regulatory agencies

Regulatory factors are formal factors and ingredients of the regulative pillar where conformity to rules and the expected behaviour of firms are laid down. The regulatory authorities in the telecommunications sector have a duty to protect customers and

ensure the smooth functioning of the market, intervening if prices are set too high or are not competitive (TI 2014). Where there is no adequate regulation, dominant companies can abuse their market power to increase prices unduly, and that harms customers (Blackman and Srivastava 2011). Regulatory factors, especially in SSA are affected by political or industry capture when they submit to external pressure from other government entities such that they lose their integrity (Blackman and Srivastava 2011). A similar study was conducted by Kaditi (2013) in south-eastern Europe regarding the region's FDI. He opined that governments in the region should, focus primarily on creating an effective legal system, relatively stable political and economic conditions. Even though that study was conducted with a different agenda from this study, the findings are important in that they may give a hint on what to expect from MNOs in Zimbabwe.

Despite their importance, regulations alone are not enough to promote sound management if they are not backed by norms and cultural-cognitive institutions (De la Torre-Castro and Lindstrom 2010). In their study on fishing institutions in Zanzibar, De la Torre-Castro and Lindstrom (2010) observed that fisheries management would benefit by broadening the institutional perspective. This, according to the authors would increase the efficiency of management and avoid blueprint solutions. The idea is not just having the regulations, but the quality of regulations matters.

Research has found that there is capricious and selective enforcement of government regulations to benefit the regulator. There are also differences in the treatment of business owners in the expectation of a bribe from the entrepreneur being granted preferential treatment (Rasheed 2020). In his research on governance and foreign direct investment, Gani (2007) found that the quality of the regulatory system of a country can have a positive link to investment. In developing countries, in Africa in particular, regulatory systems are there. However, these systems lack the regulatory effect, choice and transactional confidence of institutions as described by North (1984). This is echoed by Polishchuk (2012) who states that when enforcement mechanisms malfunction, public trust in an institution can be exploited to mislead society about the true type of agent's behaviour.

As the number of violators grows, confidence in the institution declines and reputation is lost. In the SADC countries where the rule of law and separation of power are limited,

the government easily interferes with decisions made by regulatory authorities (World Justice Project 2005). What that means, according to available literature, is that regulatory agencies in SADC are under state capture. That situation is likely to influence the service offering of the mobile operators especially those that are not politically connected. A good example is that of a South African telecommunications minister who afforded benefits to Phosane Mngqibisa based on their relationship (TechCentral 2016). That was political interference which results in abuse of power, poor service delivery, maladministration, lack of commitment inexcusable delay and improper conduct in organisation (Mfuru et al., 2018). At the same time, subscribers may not be getting a good service because the politically connected providers may not have the capacity to provide an adequate service. This study will discover how such situations influence the service provision of MNOs.

Regulatory factors were found to be determining foreign investment by Daude and Stein (2007). The author adopted Kaufmann et al., (1999) to investigate among institutional factors, the most important factor in determining foreign investment. The authors found that the unpredictability of laws and regulations, policies, and excessive regulatory burden and government instability determined foreign investment. While existing literature focuses on FDI, the same authorities also deal with domestic firms, but that literature is lacking. This study investigates the institutional factors influencing the service provided by local MNOs and the study will contribute to the literature on domestic telecommunications mobile firms. The findings of Daude and Stein are in tandem with Gorska (2010). Gorska (2010) found that complex regulations, the changes in legislation, and poor access to information are some of the factors that contribute to informality. That situation would force genuine investors to disregard formal regulations and go informal by paying a bribe, which is not good for the industry.

Regulations are there to reduce uncertainty as they provide order and stability. However, an observation by Gorska (2010) concluded that instead of providing order and stability regulations are contributing to a climate of uncertainty and anxiety. Gorska added that the legitimacy of the regulation is weakened in cases where individuals who are meant to enforce the regulations adopt self-devised and unethical ways driven by private interest. Research has found that some agencies misinterpret regulations to solicit for bribes and thus force the operators to “grease the wheels” of the service for them to get served faster.

Firms (including telecommunications) operate under regulatory factors that guide them on the way to go. These regulations, at the same time constrain firms on what to do and what not to do in the marketplace. A frequent change of regulations or too many regulations in a country discourages investors (Daude and Stein 2007). In SSA governments change regulations frequently and that is likely to impact the operations of MNOs, and hence, their service offering. The regulations passed include regulations that govern the setting up of infrastructure. That means the quality of the regulatory agency will influence infrastructural development and deployment. Regulations may forbid the laying of cables in some areas, and politicians may interfere by using nepotism. There could be tribalism or ethnicity in awarding tenders for infrastructure building because of regulatory agents who have their own personal interests.

Regulatory agencies (third party) such as the judiciary, courts, police are formal government arms. These interpret and enforce the laws and regulations passed by the government. These agencies are expected to be neutral in executing their duties. To pass meaningful regulations, there should be political stability in the country. The quality of regulatory agency matters because weak agencies may be swayed away from their objectives. Good quality regulatory agencies are required to avert politicians from dictating terms to the regulators. North (1990) states that enforcement is undertaken by agents whose own utility functions influence outcomes.

ITU (2011) reports that 80% of countries have established National Regulatory Agencies (NRAs). However, the mere presence of a regulator does not guarantee a favourable environment for further investments (Moshi et al., 2017). What counts is the quality and effectiveness of regulators. That can be measured on how a regulator, could for instance, provide clear guidelines, engage the market participants in the formation of regulations and ensure predictability in the market (Moshi et al., 2017). Cadman (2010) investigated the influence of regulators performance on investment in European telecommunication markets. Cadman (2010) found a positive relationship between efficient regulatory bodies and investment in the telecommunication sector. Earlier, Gutierrez (2003) conducted similar studies in Latin America and in the EU. Gutierrez (2003) found similar results that regulatory performance positively influences investment in the telecommunication sector. In the African context, Moshi and Mwakatumbula (2017) conducted a study on the effects of political stability and sector regulations on investments in African mobile markets. Moshi and Mwakatumbula

(2017) found that the mobile telecommunications industry was dependent on regulation and liberalisation. However, (Moshi and Mwakatumbula 2017) did not find statistical evidence for the effect of political stability as measured by the democratic process. Regulatory agencies are not entirely independent of the overall political environment prevailing in a country. That is because their effectiveness depends on the overall political environment prevailing in a country (Moshi and Mwakatumbula 2017).

Moshi and Mwakatumbula (2017) also found that market structure factors, especially competition, market size and the cost of investing in a country, are important in determining the allocation of mobile telecommunications investments among African countries. According to the authors, that calls for suitable political environments and that includes adherence to the rule of law, level of democracy and interference by political figures. Available research on regulatory agencies does not indicate what influence the situation in regulatory agencies has in the provision of mobile telecommunications service.

This study expects regulatory agencies to influence the service offered by MNOs and the following proposition has been established.

Proposition 2: Regulatory agencies influence the service provided by MNOs in Zimbabwe.

2.7 Infrastructural Factors – Infrastructural quality and quantity

The World Bank (2006) states that investment in telecommunications infrastructure enhances economic growth. Using a panel of 44 African countries, Batuo (2015) found that telecommunications contribute in a major way to the economic development. The author suggested that investment should be encouraged. Important to Africa as infrastructure may be, research has shown that countries have infrastructural problems. Empirical results show that the increase in the country's infrastructure saves labour and materials. At the same time, the use of modern communications infrastructure increases productivity of all industries (Nadiri et al., 2018). Roller and Waverman (2001) found that economic returns to telecommunications infrastructure investment yield greater than telecommunications

investment itself. Telecommunications infrastructure impacts other industries as well, for example, banking.

Telecommunications infrastructure has been described as the 'central nervous system' of the very process of globalisation (Castells 1996; Mansell 1994). It is the duty of the state to provide infrastructure in the country and that is why infrastructure becomes a political issue. This is so because the telecommunications network is arguably the most fundamental infrastructure with a pervasive effect on the performance of the economy (McCormick 2008). A lot has been written about Africa lagging in infrastructure, but the relationship between infrastructure and its influence on the mobile services provision has not been emphasised. This study is, therefore, exploring infrastructural factors that influence the service provided by MNOs in Zimbabwe.

Most infrastructural problems result from government relationships with telecommunications firms. Research has found cases where government expropriates the investment after the operator has laid down the infrastructure and has incurred a lot of sunk costs. Alternatively, the government may decide to control prices without considering the operators' input costs. That would ultimately affect the operators' return on investment (ROI), and that discourages investors. All those problems emanate from the weaknesses of regulatory agencies that do not safeguard against arbitrary, unpredictable changes in the policies or regulations in the sector. Research has pointed out the problem of infrastructure on the continent, but it is not known how this has influenced the service offering of MNOs.

Moshi and Mwakatumbula (2017) found that after the 2010 peak, infrastructural investments in Africa have shown a downward trend. That was caused by operators investing in rural areas where investment does not yield good returns. Very few operators would take the risk of infrastructural investment where returns are not attractive. The problem is exacerbated by the uncertainty of government expropriation. The problem of the continent's infrastructure needs to be taken as a priority by all concerned if most people (especially in rural Africa) are to have access to information.

Traditionally, all physical network elements and network layers are single operator owned. Djamal-Eddine et al., (2011), argue that for the high sunk cost investments and the recovery of costs, operators usually charge users heavily, and that renders the

services unaffordable to subscribers. The authors assert that MNOs are now being pushed to adopt multiple strategies because of increasing competition, and the rapid commoditisation of telecommunications equipment that would lead to improved network costs. Supporting the idea of multiple infrastructural ownership are Garcia and Kelly (2016), who argue that joint construction of networks is a holistic approach to linear infrastructure deployment. Adediran et al., (2016) support the idea of network sharing, adding that it would lower the cost of network deployment especially in rural areas, and thus lead to lower prices to subscribers.

The literature has shown that African governments change more often than elsewhere in the world. Operators might be reluctant to invest in infrastructure sharing for fear of changes of government, expropriation of infrastructure by government, or some other corrupt activities by government agents to get rid of the investor. Infrastructure sharing is easier said than done. If infrastructure sharing was a good idea, why have operators not voluntarily done so? Infrastructure ownership should come from operators and not be imposed on them. Operators on the ground are knowledgeable of what works and what does not. This problem points to the regulatory systems' credibility in SSA, and hence the infrastructure problem on the continent remains difficult to solve. Infrastructure ownership is likely to influence the service offering of MNOs, whether joint- or single-ownership.

Batuo (2015) in his study, using a panel of 44 African countries found that telecommunications infrastructure plays a vital role in generating regional economic development. Batuo (2015) added that policymakers have acknowledged that African countries are lagging other countries because of the insufficiency of their infrastructure. Governments have been encouraged to invest and provide an efficient telecommunications infrastructure in their countries. In addition, African countries have been advised to further allocate resources to rural areas since most of the African population lives in rural areas.

This study explores the prevailing infrastructural factors in Zimbabwe to learn how these factors influence the mobile telecommunications service provided by MNOs. The results may be replicated in other SADC states, since the problem of infrastructure is common in the region.

The service provision of telecommunications hinges on the infrastructure that is available to MNOs. In their study of Telecommunications Services in Africa, Djiofack-Zebaze and Keck (2008) found that the building of infrastructure depends on the quality of the regulatory agency. A good quality regulatory agency would ultimately improve accessibility of telecommunications services through lower prices. Infrastructure can also be affected by regulations that forbid the digging and laying of cables in some designated areas and that would have adverse effects on the business of telecommunications operators. Deployment of infrastructure is likely to be affected by politics with the ruling party, for instance, being against infrastructure building in areas where opposition parties are dominant (African perspective) or some other discriminatory element. Telecommunications infrastructure depends on government, that is, the political and the regulatory institutions and that includes the rights of MNOs to dig, build and to lay cables, an exercise that requires the approval of local authorities.

In 2013, Africa lagged the rest of the world in broadband penetration at only 11% with more than 95% of that being mobile broadband (ITU, 2013). While penetration of fixed broadband is at a staggering 0.2%, more than 94% of broadband connections are done through mobile networks (Gbenga-Illori, and Sezgin 2016). Due to rapid and constant technological advancement in the telecommunications industry, countries are required to continuously invest in network upgrades, such as from 2G to 3G, and 3G to 4G. In addition, there is a need to increase network capacity and coverage, especially to rural areas where a larger share of the African population resides (Williams et al., 2011).

ITU (2010) reported that over half of the countries in Sub-Saharan Africa had already deployed 3G networks, at least in major urban centres, making the digital divide even greater for advanced telecom services (Mutula, 2013). For example, even in advanced markets such as South Africa, with 99.7% of its population covered by voice telecommunication mobile signals, only 54% of the population was covered by 3G signals in 2010. In Tanzania, one of the first adopters of 3G networks, only 36% of the population lived under 3G signals. In both countries, 3G has been extremely concentrated in urban centres. While 3G networks are present in most African markets, some mature markets such as South Africa, Kenya, Tanzania and Nigeria, have rolled out 4G networks to offer much higher data rates in mobile environments.

Network infrastructure requirements for 3G and 4G networks are significantly different from the preceding second generation especially in their core network facilities. These include data packet switches, the installation of high-capacity bandwidth backbone and new base stations. What that means is that subscribers in those African countries still on 2G are having difficulty accessing data because of the inadequate quantity of data generated from 2G. With these limitations arising from infrastructure constraints, the subscribers' perspective of the provider would be negative.

Azolibe and Okonkwo (2020) found that productivity in SSA is influenced by the quantity and quality of the telecommunications infrastructure, which is interdependent with electricity and transport networks. Their findings on infrastructure development and industrial sector productivity in SSA support Sassoulas (2012). Sassoulas (2012) asserts that the key to Africa's economic growth is the improvement of the quantity and quality of the continent's infrastructure. According to Azolibe and Okonkwo (2020), the relatively low level of industrial sector productivity in SSA was because of the poor electricity and transport infrastructure - these are likely to impact the mobile phone operators' service provision. Whilst these authors have written about the state of African infrastructure, they have not investigated its influence in the provision of mobile network service, and hence a gap that this study aims to close.

Telecommunications infrastructure expansion in the region is still lagging other regions. Analysts are convinced that the key to Africa's future economic growth is the improvement of the quality and quantity of the continent's telecommunication infrastructure (Sassoulas 2012). According to Sassoulas (2012) Southern Africa is connected mainly through the East African Submarine System Cable (EASSC), the West African Cable System (WACS) and Seacom. However, experts say that the main problem related to connectivity in Southern Africa is not the link-up to submarine cables but the poor domestic infrastructure. Sometimes the state monopoly on landlines makes it difficult for ordinary customers to get connected especially outside the big cities, to get connected (Allison 2013). Access to mobile telecommunications can dramatically improve standards of living in developing countries. It would save on wasted trips, providing information about prices or serving as a conduit to banking, health care and other services (Mothobi and Grzybowski 2017). In their survey data conducted in 11 SSA countries in 2011, Mothobi and Grzybowski (2017) found that the availability of physical infrastructure influences adoption and usage of mobile phones.

The adoption of mobile phones is higher in areas with better physical infrastructure. However, mobile phone users who live in areas with poor infrastructure are more likely to rely on mobile phones to make financial transactions than individuals living in areas with better infrastructure.

Low-income countries' mobile penetration was 94% in 2014, while in high income countries it was 121%. During the same period, low-income countries had 54% of the population with mobile phone accounts against 94% in high income countries. The reasons for this disparity are the deficiency of infrastructure and uncertainty in developing countries. Gasmi et al., (2010) investigated the link between political accountability and telecommunications infrastructure regulations. Using time series data for 1985 to 1999 for 29 developing countries and 23 developed countries, the study concluded that telecommunication infrastructure regulations cannot be effectively independent of economy-wide institutional environments. The literature on infrastructure is all about the required technology, its quality and quantity. It is not clear how adequate or inadequate quality and quantity would influence the service offered by MNOs.

This study expects the quality and quantity of infrastructure to influence the service provided by MNOs in Zimbabwe and the following proposition has been created.

Proposition 3: Infrastructural quality and quantity influence the service provided by MNOs in Zimbabwe.

The next section discusses informal institutions which include, socio-cultural and corruption in two different forms, nepotism and bribery.

2.8 Socio-cultural factors – Ethnicity

Socio-cultural factors are informal institutions located within the cultural-cognitive pillar (Scott 1995; 2008; 2014). According to North (1990) and Scott (1995), the cultural-cognitive pillar is also important in the development of the regulative institution (formal institution). This is supported by Holmes et al., (2013) who add that informal institutions shape the regulative pillar's many formal institutions, and these include, among others, the political, legal institutions. Available research has found that culture provides a foundation on which the countries' formal institutions, regulatory and political factors are developed by a society. For instance, for the government to come up with laws

and regulations of a country, the cultural aspect of the country must be considered. Holmes et al., (2013) assert that the cultural dimensions of collectivism and future orientation shape the country's formal institutions. Research on cultural factors in the telecommunications firms' environment is about companies operating in international markets. Telecommunications firms must adhere to the host country's culture. It is not known how the cultural aspect of institutional theory influences companies operating within the country.

SSA is the most ethnically and linguistically diverse region of the world where ethnicities are characterised by distinct cultural norms and economic traits (Alesina, et al., 2003). This diversity is likely to impact on the service provision of MNOs and hence has implications for this study. National politics have a strong ethnic component since political parties are formed across ethnic cleavages (Franck and Rainer, 2012; Eifert et al., 2010). It is common to find politicians dictating the hiring of people either on their political affiliation or tribal and ethnic origin. Research on this aspect of culture is missing from institutional theory because it does not address the problems in the African context. This study explores the influence of the cultural component in the mobile telecommunications sector. In the African context for example, heads of government can be seen favouring people from their tribes or ethnic grouping. This is common in the awarding of tenders, employment and allocation of resources which would ultimately dictate the service offered by MNOs.

It is not surprising that in Africa you are likely to find a region that is deprived of all national privileges because the area does not have a tribal/ethnic representation in government, and hence, infrastructure in such cases will be lacking. There are totems in African culture, and unlike other continents, people who have same surnames are related because they have the same totem. There could be favouritism toward firms owned by people related to a high-ranking government official. All these aspects are missing in institutional literature. The current study contributes to filling this gap.

Figure 2.1 shows one of the socio-cultural factors. These are informal institutions that feed the regulative pillar in crafting the rules and regulations in accordance with what society wants. These are institutions of the cultural-cognitive pillar (Scott 2008). In the African context these are likely to influence telecommunications operators because of Africa's diverse culture. Socio-cultural factors (African perspective) are likely to affect

local operators on the grounds of the entrepreneur's ethnicity or tribe. The regulatory agency may be strategically appointed to favour mobile firms owned by people from a particular ethnic group or tribe. In addition to that, employees would be hired based on their ethnic or tribal affiliation and not according to their competence. This study will explore how ethnicity influences the service provision of MNOs in Zimbabwe.

Africa is the most culturally diverse continent with different groupings: tribes and ethnicity; religious beliefs, languages, and the larger the population in an African country, the more diversity there will be. Nigeria, for instance, is perhaps a good example as it is the most populous country on the continent with a population of nearly 600 million people, would have the largest diversity on the continent. Studies by North (1990), Helmke and Levitsky (2012) and Grzymala-Busse (2010) have indicated the importance of religion, tribes and ethnicity as anchors on which the political and regulatory institutions stand. It is believed that firms that have paid attention to the role of cultural-cognitive element have been successful (Newenham-Kahindi 2009; Newenham-Kahindi and Stevens, 2017). Any study in Africa that fails to address those elements of diversity that are unique to Africa would miss out on elements that are meaningful to studies on the continent.

While there is a good relationship between these cultural aspects and the political and regulatory institutions, research conducted by De la Torre-Castro and Lindstrom, (2010); Michalopoulos and Papiosnnou (2015) suggests that the cultural-cognitive aspects are likely to work against the formal institutions. However, from the African perspective, these two institutions, formal and informal normally work side-by-side or independently. For instance, there are chiefs in Africa who handle cases just like the formal judiciary. They have their "Chief Justice" and could work together with formal or operate informally and independently without working against the formal. Researchers on FDI telecommunications firms operating on the continent have studied the influence of ethnicity in the operating environment of those firms. These scholars have seen the diversity of the African culture and its influence on telecommunications firms from outside their borders. Most of these studies have taken place in Nigeria (Sutherland 2012). It is not clear how ethnicity would influence telecommunications firms operating within the country. Just like most elements of the African context, the issue is not addressed in most institutional theory literature on Africa.

The current study expects ethnicity to influence the service of MNOs in Zimbabwe, and the following proposition has been established.

Proposition 4: Ethnicity influences the service provided by MNOs in Zimbabwe.

2.9 Corruption Issues – Nepotism and Bribery

Corruption is an informal factor within the normative pillar that has been reported in the telecommunications sector but whose influence on service provision of MNOs is not clear. Corruption has different definitions from different authors (context-based) because it appears each author's definition is related to the research that they are conducting.

The World Bank Group defines corruption as the misuse of public office for private gain. Similarly, Kaufman et al., (1999) define corruption as the exercise of public power for private gain. Kaufman et al., (1999) observed that the presence of corruption is often a manifestation of a lack of respect of both the corruptor (typically a private citizen) and the corrupted (typically a public official) for the rules which govern their interactions and hence represents a failure of governance. Other definitions, though worded differently, still have the same meaning as the World Bank Group one (Mauro, 1995; Treisman, 2000; Breit et al., 2015). The problem with this definition is that it mentions corruption as involving public office and yet in reality, it also involves private sector. Corruption is prevalent in SSA and involves public office and the private sector. Transparency International (TI) (2009) defines corruption as the abuse of entrusted power for private gain. Whilst the TI's definition has some element of inclusivity, it is still not accurate because people can be corrupt even though they do not hold office. The term would be better defined according to the situation - left open and only defined as per the context.

Ashforth and Anand (2003) state that organisation scholars have emphasised that corruption should not only be regarded as a state of misuse, but also a process, gradual institutionalisation of misbehaviour. It contributes to legitimising behaviour and socialising others in such a way that it gradually becomes a normalised culture of corruption. Corruption is commonplace in the telecommunications sector and is well-established with manufacturers and operators having admitted bribery and nepotism in a range of countries (Sutherland 2012). In SSA it has become endemic, not only in

telecommunications but other sectors as well. It is found where service seekers must carry with them money equivalent for the service plus money to “grease the wheels of business” for them to get the service.

Research by Sutherland (2011); Uhlenbruck, et al. (2006); and Sutherland (2015); found that the telecommunications industry is vulnerable to corruption. That is caused by the interaction between public and private sectors in the awarding of licences, monitoring and regulation, as well as import and export activities (Sutherland 2012). Sutherland (2013) asserts that corruption is caused by the large sums of money generated by licence fees, equipment contracts, purchase of state operators, mergers and acquisitions that are incentives and opportunities for corruption (Sutherland 2013). This is in support of TI (2010) that governments award licences and concessions and that that sphere of government activities is vulnerable to corruption (TI 2011). That is witnessed in the situation where public authorities are found limiting the number of licences given out. They do that to reduce competition and favour corrupt companies, drafting bids to fit a specific service provider, and systematically allocating licences to the same bidders (TI 2010). According to OECD (2014), many telecommunications projects have been tainted by corruption and bid rigging.

Corruption lowers private investment because investors will think twice before investing (Sutherland 2014). The idea of deregulation, liberalisation and privatisation was to encourage private investment in the telecommunications sector, but then corruption is working towards a different direction. Sutherland (2012) asserts that the telecommunications sector has been slow to recognise problems of corruption. Sutherland (2012) added that criminal convictions were getting limited coverage in the trade press and at conferences, never drawing any attention to this serious problem. Sutherland (2012) states that effective governance reduced corruption but that the presence of state-owned operators had the opposite effect.

Research on corruption has recently shown significant implications for telecommunications firms (Habib and Zurawicki 2002; Doh et al. 2003; Rodriguez, et al. 2005). Corruption is particularly prevalent in transition and less-developed economies (Hellman et al. 2000). However, not much is known about the influence it has on the telecommunications firms’ service provision. A study by Collins et. al., (2009) of local and foreign firm adaptation to corruption in India, found that managers’

perception of government corruption as a taken-for granted factor is positively related to their firms' engagement in corruption.

Institutional theory foresees that firms adopt fundamentally different business practices out of convenience (for survival) and to achieve access to resources and support by critical stakeholders (DiMaggio and Powell 1983; Oliver 1991; Tolbert and Zucker 1983). Some of these practices adopted by firms for their survival involve corruption. Adding to the debate on firms' involvement in corruption for survival, Rose-Ackerman and Soreide (2011) argue that corruption is usually depicted as opportunistic behaviour based on rational choice and agency theory and thus the individual's motivations for engaging in corrupt behaviour.

Corruption in telecommunications has been documented in both formal and informal institutions. Corruption on the African continent has been found in the making of laws, policies and regulations where government enforces discriminatory regulations to benefit the regulator. There has been differential treatment of business owners in the expectation of a bribe from the entrepreneur being granted the preferential treatment. Nepotism, bribery, and tribalism are all grouped together as corruption. Corruption that happens in Africa comes in different forms because of the continent's diverse demographics.

Research on telecommunications corruption has been conducted in some African countries, Nigeria, (Sutherland 2017), South Africa, (Sutherland 2012) Kenya, (Sutherland 2015) and many other countries. It appears most of this research has been conducted by one researcher, Sutherland, and TI and the World Bank. Corruption is well-documented in telecommunications but its effect on the service provided by MNOs is not clear. Hence this research explores this institutional factor (corruption) how it is likely to influence the service provision of MNOs in Zimbabwe.

Corruption, as shown in Figure 2.1, is the most dominant factor present in all institutions in varying degrees. Corruption comes in different forms. In the African context, nepotism is dominant and comes in different forms, influenced by the diversity of African demographics. Regulatory agencies have been blamed for influencing bribery by creating bottlenecks in processing documents for the service seeker to "grease the wheels of bureaucracy". Nepotism is found where they favour telecommunications firms owned by relatives or their cronies regardless of those firms'

ability to provide good service. Corruption in the African context comes in different forms as dictated by the homogeneity of the African society. This study will discuss corruption under two broad areas, nepotism and bribery within which are splinter factors found only in the African context. Corruption in the African telecommunications sector is endemic and hence is likely to influence the service provided by MNOs in Zimbabwe.

Nepotism, according to Sutherland (2012), is the preferential treatment or favouritism given to family members whilst “Cronyism” is favouritism directed to friends and acquaintances. Nepotism refers to situations in which public officials and decision makers place their cronies and relatives in strategic positions in oversight and regulatory bodies, or favours telecommunications companies owned by their allies and families (Sutherland 2011a).

Nepotism is defined by Özler et al., (2007) as employing or promoting somebody based on kinship relationships without considering competence and qualifications. Similarly, Pelletier and Bligh (2008) see nepotism as the act of showing favouritism to family members during a recruitment process or during promotional decisions. In addition to that, such acts serve as the genesis of corruption because people who benefit from the process may give in to the request demanded from them. Many more authors, including Darioly and Riggio (2014) and Arasli et al. (2006) agree that nepotism is an unprofessional phenomenon because it disregards qualification and experience of non-relatives. In their research on nepotism in the tourism industry, the authors found that nepotism affects the level of satisfaction among employees. On the other hand, customers perceive and evaluate the quality of service by considering the attitude, behaviour and tone of voice of employees. Similar observations were done by Taymaz and Özler (2007) who observed that people are afraid of working with unfamiliar people, choosing familiar people rather than experts in the job. That reduces morale of non-family members and leads to low job satisfaction and ultimately, reduces work efficiency. In the telecommunications sector, this would be reflected in the service provided by MNOs.

In line with the above, the mobile operator that is favoured by the regulator may not be the best provider to deliver good service to subscribers. According to Sutherland (2012), nepotism and cronyism are widespread in the telecommunications sector.

Nepotism and cronyism are the main barriers in the way of suitable telecommunications operators or well-qualified employees. In the case of mobile telecommunications operator who has had favour from regulators may be forced to employ candidates referred by the regulator, and these candidates may have no qualifications or qualities for the job.

A good example of nepotism is that of South Africa, where a former member of parliament, Dina Pule was found guilty of nepotism by parliament's Ethics Committee for having afforded benefits to Mr Phosane Mngqibisa based on his relationship with her (TechCentral 2013). In Tunisia, the Washington Post (2014), reported that the Tunisian president owned many of the companies operating in the telecommunications sector which was protected by barriers to market entry. Nepotism has also been reported in the Arab states where relatives of heads of state of some Arab countries have been able to use and abuse the telecommunications industry to become rich. In Yemen, for instance, family members obtained licences on terms not available to others and created or were able to participate in the creation of mobile network operators. They obtained significant revenues from individual citizens, based not on any technical or commercial expertise, but rather on family relationships that enabled them to obtain licences from ministries and loans from banks (Marks 2009).

Nepotism has implications for this study because employees hired according to a relationship with employer/middleman, may not deliver the expected service. At the same time, employees who have been employed based on merit, on seeing such favour will have their morale reduced and hence service is impacted. Generally, nepotism is rife in Africa, and it takes many forms because of the diversity of the African culture. African demographics differ from those of other countries and hence the need to explore them further. For instance, favouritism can be according to tribe/language, totem/surname, which is not found in other parts of the world.

In the African context, nepotism goes further than just favouritism of family or friends. Although not appearing in the institutional literature issues like, *tribalism*, *ethnicity*, *regionalism* and *totemism* are likely to be present but seem to be missing in institutional theory studies relating to Africa. Tribalism is common in Africa, where each country has different tribes. Nigeria for example, has 300 tribes (theculturetrip.com). People are treated differently because of their tribe and ethnic groups that they belong

to. If all these are present in the mobile telecommunications sector, they would obviously influence the service offered by MNOs.

In the case of Zimbabwe, during the colonial era, people of the same tribe were relocated to the same province and hence the provinces' names are tribal (Tribal Trust Lands). Politicians have been found to develop infrastructure in their tribal trust land and that is corruption (regionalism). That means those people would have an advantage when mobile infrastructure is to be developed in the area, where tribal chiefs act as chief justices and favour people from their tribes.

Whilst the existence of nepotism is known in telecommunications, it is not clear what influence it has on the service offered by MNOs.

This study expects nepotism to influence the service offered by MNOs in Zimbabwe and the following proposition has been established.

Proposition 5a: Corruption through nepotism influences the service offered by MNOs in Zimbabwe.

Transparency International defines bribery as the offering, promising, giving, accepting, or soliciting of an advantage as an inducement for an action which is illegal, unethical or a breach of trust. Bribery is defined as the quid pro quo exchange between local firms and government officials. This is when cash, favours, and gifts are provided by the former to obtain illicit advantage in the allocation of state resources and services from the latter (Sanyal 2005).

Available research on bribery assumes a demand-side perspective associating causes with avaricious government officials who demand illicit payment (Mbaku 2016); Shleifer and Vishny 1998; and Treisman 2000). According to Sutherland (2012) bribery is rampant in the telecommunications sector in Africa. Companies in SSA claim to regularly pay bribes to government officials to secure operating and import licences. The same is used to obtain construction permits, gain access to government services such as electricity, water and telecommunications connection (Sutherland 2014). This has implications for this study because for MNOs to operate, they must obtain licences from government, electricity is interdependent with telecommunications, and the sole supplier is government. MNOs need essential services of water as well as permits to

lay the needed infrastructure, and these can only be obtained through the engagement of government agencies who might have their own personal agendas.

Bribery appears to be prevalent in SSA, with 51% firms claiming to have given gifts (bribes) to public officials to secure connection to public utilities (Ufere et al., 2020). It has been reported that 47% of firms have paid bribes to win government contracts (WBES 2006-2010). Bribes can be initiated by either service provider or the service seeker. The high value of privatisations, licences and equipment supply contracts in telecommunications have created opportunities for individuals to solicit and for companies to pay bribes (Sutherland 2012a). According to Sutherland (2012) in developing countries with weak or absent anti-corruption systems, no special measures were put in place to reduce exposure to petty or grand corruption.

Ufere et al., (2020) investigated bribery in three industries, manufacturing, retail and services and found that 49.6% manufacturers paid bribes to win government contracts, 46.5% retailers and 46.3% services (MNOs fall under services). Despite all what is happening in SSA, little attention has focused on the institutionalised mechanisms that promote bribery and the conventional and accepted way of doing business on the continent (Ufere et al., 2020). Research by George et al., (2016) found that corruption and institutional voids have been recognised as under-researched frontier issues that business and policy makers must grapple with on the continent. Existing research on bribery has focused primarily on a single industry (Venard and Hanafi, 2008; Venard, 2009; Gao, 2010) across countries. As a result, very little is known regarding the effects of institutions on bribery and how bribery is normalised across industries (Ufere et al., 2020).

Ufere et al., (2020) found evidence that legal, economic and political institutions impose constraints on the SSA business execution. Additionally, institutions provide similarly strong empirical support for organisational isomorphism as a powerful bribery-enacting mechanism in the region. The authors state that their results suggest that business goals in SSA overall are constrained by the institutional environments. These are legal, economic, regulatory, political, bureaucratic and cultural. In other words, the MNOs' goals of service provision may not go as planned because of the above-mentioned institutional factors.

Bribery in the telecommunications sector normally takes the form of cash in bags and cases, money paid to offshore bank accounts, entertainments and gifts, facilitation payments, overseas luxury travel, medical treatments and shares in a corporation etc (Sutherland 2011a). The aforesaid methods of bribery are difficult to trace by anti-corruption agents from the governments concerned. Like taxes, bribes create a wedge between the actual and privately appropriated marginal product of capital (Svensson 2005).

The reviewed literature on institutional factors shows corruption as a dominating factor among the environmental factors. There is corruption, in almost all formal and informal institutions, political, regulatory, normative and in socio-cultural factors. This study expects corruption in the form of bribery to be of considerable influence on the MNOs service provision, and the following proposition has been created.

Proposition 5b: Corruption through bribery influences the service provided by MNOs in Zimbabwe.

Study Aim: To investigate and understand formal and informal institutional factors influencing the service provided by MNOs in Zimbabwe and to discover ways in which each of the factors influence the service and to establish ways of mitigating these service problems

The research questions and associated research prepositions are summarised in table 2.2 below.

Table 2.2 Research questions and propositions

Question	Proposition
1. What formal and informal institutional factors influence the mobile service provided by MNOs in Zimbabwe?	1. Political stability influences the service provided by MNOs in Zimbabwe. 2. Regulatory agencies influence the service provided by MNOs in Zimbabwe. 3. Infrastructural quality and quantity influence the service provided by MNOs in Zimbabwe. 4. Ethnicity/tribe influences the service provided by MNOs in Zimbabwe. 5a. Corruption through nepotism influences the service provided by MNOs in Zimbabwe 5b. Corruption through nepotism influences the service provided by MNOs in Zimbabwe
2. How do these factors influence the service of MNOs?	1. Political instability is likely to affect network coverage, political discrimination on network coverage, high tariffs due to fewer MNOs willing to invest and hence lack of competition. 2. Regulatory agencies may not permit some installations in certain areas, for example, they may forbid digging and that would affect network coverage in that area. 3. Some infrastructural materials may be sourced from other countries and could lead to high tariffs paid to by consumers. Inexperienced staff may not be competent enough in installing infrastructure, leading to coverage problems, and thus affecting the service quality offered by MNOs. 4. Ethnicity and tribe are likely to affect network coverage, where network to certain tribal lands is dictated by ethnicity and tribe. Service quality is also likely to be affected by unqualified staff being hired on ethnic and tribal grounds and not according to merit. This would be costly for an MNO and that cost ultimately passed on to subscribers in the form of higher tariffs rendering the service unaffordable to consumers 5a. All service provision could be affected if a bribe is paid to agencies by an incapable MNO. That could have a negative impact on the quality of service offered to the consumer 5b. Nepotism is likely to influence the MNOs to hire their cronies and relatives and could compromise the quality of service offered to the consumer.
3. How can the influence of these institutional factors be mitigated?	Suggestions: The working together of (stakeholders) regulatory agencies, political leadership, civic society, etc would help reduce MNOs' service problems. Government encouraged to cede ownership to the private sector.

Source: Author

2. 10 Thesis Contribution to Literature

Available literature on telecommunications sector addresses the influence of MNOs in foreign markets and yet MNOs in the domestic markets also operate under the same/similar environment, but locally.

This thesis contributes to institutional theory in the perspective of an African country, Zimbabwe. Existing literature does not address the African perspective which differs immensely from other countries. In the African context, this study finds that formal and informal institutions exist, but that these seem to work independent of each other (Kamoche and Harvey, 2006; Michalopoulos and Papiosnnou, 2015). On the other hand, institutional literature sees informal institutions as supporting formal institutions. For example, political and regulatory institutions (North, 1990; Holmes et al., 2013; and Scott, 2014). This thesis finds formal and informal institutions going the opposite direction. It has been found that the destruction of infrastructural components is the result of informal institutions working against formal, in this case, working against the regulatory institution.

Available research on institutional theory has ignored the African perspective that could contribute to management literature (Kamoche and Harvey 2006; Newnham-Kahindi, 2009; Michalopoulos and Papiosnnou, 2015). Management scholars can learn a lot from the African institution because it is different from other parts of the world. African informal institutions, ethnicity, language, religion and different political structures are complicated because of Africa's heterogeneity (North, 1990; Scott, 2014). Nkomo, et al., (2015) suggest that researching the context of Africa's rural society may provide the platform with new management theory development.

This study also adds to existing literature on telecommunications by filling in the gaps that were not addressed by previous literature. Table 2.3 gives an account of previous telecommunications authors who used institutional theory. The table shows the empirical telecommunications studies that have applied institutional theory, and the gaps that this study is closing, and thus, the contribution of this study to institutional theory.

Table 2.3 Summary of empirical studies and research gaps

Influencing Factors	Authors	Main Argument	Method	Gaps to be closed
Regulatory Factors	Globerman and Shapiro (2002), Daude and Stein (2007), Rasheed, (2020)	Regulatory institutions in host countries influence inter-national investment of foreign tele-communications firms	Panel data and Metadata, World Bank Investment Report	What is not yet clear is how the same regulatory factors are likely to impact the service provided by domestic MNOs in Zimbabwe
Political Factors	Kaufmann, et al., (1999; 2009) Guler and Guillen, (2010) Ufere, (2020)	Political institutions influence internationalisation	Panel data and metadata from World Bank Investment report	What is not yet clear is the influence of political institutions on the services provided by MNOs in Zimbabwe, a developing country in Africa
Infrastructural Factors	Batuo, (2015), Nadiri, et al., (2018)	The use of modern communications infrastructure increases productivity of all industries	Panel data	It is not clear how infrastructure could influence the services of MNOs in Zimbabwe, a developing country in Africa
Socio-cultural Factors	Scott, (1995, 2013), Newham-Kahindi, (2009, 2018)	Cultural factors, i.e. tribes and language were found to influence the internationalisation of telecommunications firms	Quantitative survey data	The African context can be better understood if studied quantitatively as that would provide a unique contribution to the factors influencing the services of MNOs
Corruption	Uhlenbruck, et al., (2006), Sutherland, (2011, 2012), Doh, et al., (2017)	Corruption has been found to be prevalent in the telecommunications sector	Transparency International panel data	It has been established that there is corruption in the mobile telecommunications sector, but very little is known about its effect on the services offered by MNOs in Zimbabwe

Source: Extracted from Literature

2.11 Literature Review Chapter Summary

The literature reviewed shows that FDI telecommunications firms have been influenced by institutional factors when entering foreign markets. It is not clear whether the same institutional factors are likely to influence mobile telecommunications firms in the domestic market. This thesis contributes to available literature by using institutional theory to focus on institutional factors influencing the service offered by MNOs in the domestic market.

Chapter 3 Research Design and Methodology

3.1 Introduction

The background to the study chapter 1, introduced the telecommunications sector from pre-liberalisation to post-liberalisation, an era that brought about reforms in the telecommunications sector, whose aim was to have more people access the telecommunications. Chapter 2 further indicated that governments across Africa implemented reforms in the telecommunications, but it appears that there are still many people unconnected. This shows that the liberalisation of the telecommunications sector in Africa has not worked. Using institutional theory as a framework (Chapter 2) this study seeks to explore this issue, and this has prompted three research questions to be answered:

Q1 - *What formal and informal institutional factors influence the service of Mobile Network Operators (MNOs) in Zimbabwe?*

Q2.- *How do these factors influence the service?*

Q3 - *How can the influence of these factors be mitigated?*

To answer these questions, there should be coherence between literature review, research question and research design (Edmondson and Mcmanus 2007). A particular methodology has been adopted for this study. The study adopts multiple case study to address the three research questions, and it uses multiple sources including semi-structured in-depth interviews, with stakeholders who have knowledge and experience of the mobile telecommunications services in Zimbabwe, and archival documents from GSMA, ITU and other publications. For this study, Post and Telecommunications Regulatory Authority of Zimbabwe (POTRAZ) reports were also consulted.

This chapter discusses the research design and philosophical underpinning of the research. The chapter begins with an introduction of discussions on philosophies or paradigms, ontology and epistemology that are the researcher's understanding of reality and of how knowledge is acquired. The three research approaches to

reasoning, deduction, induction and abduction will also be discussed in this chapter. The methods of collecting and analysing data, which depend upon the philosophical position of the researcher will be discussed and the justification of methods used for the study. The chapter ends with the discussion of validity and reliability of the research.

3.2 Research Philosophy and Philosophical Stance of the Study

The term research philosophy refers to a system of beliefs and assumptions about the development of knowledge (Saunders et al., 2019). A well-thought-out and consistent set of assumptions will constitute a credible research philosophy, which will underpin the researcher's methodological choice, research strategy, data collection techniques and analysis procedures. The research approach involves philosophical assumptions and distinct methods or procedures (Creswell and Creswell 2018). At every stage of the research, the researcher will make several assumptions consciously or unconsciously (Burrell and Morgan 2016). Worldviews are a general philosophical orientation about the world and the nature of research that a researcher brings to a study (Saunders et al., 2019; Creswell and Creswell 2018). Worldviews are also perceived as a basic set of beliefs that guide action (Guba 1990). Different kinds of research are founded on what we believe, different beliefs on what we think truth is, whether it exists, and what is true. The researcher's viewpoint is seen in two broad perspectives, ontology and epistemology and these two guide the entire design and place the research within an appropriate paradigm (Bryman and Bell, 2007, 2015; Saunders, et al., 2019).

There are two recognised ontological views, one looks at knowledge being external to social actors, that is the *objective view*, and the opposing one looks at knowledge as being built on the perception and action of social actors and that is the *subjective view* (Easterby-Smith, et al., 2012). On the other hand, epistemology is concerned with the best ways of enquiring about the nature of knowledge (Easterby-Smith et al., 2012; Creswell and Creswell, 2018; Bryman and Bell, 2015; Saunders et al., 2019). Just like ontology, epistemology also has two world views, positivism, that relates to constructing knowledge objectively without the influence of the researcher. The second is constructionism where knowledge comes about through interaction with

realities (Crotty 1998; Pilot and Beck, 2010; Williamson 2006). Ontology, therefore, looks at *what* knowledge is, whilst epistemology looks at *how* to construct knowledge.

Ontology is concerned with our beliefs about reality and its existence (Crotty, 1998; Scotland, 2012; Bryman and Bell, 2015; Maylor et al., 2017; Saunders et al., 2019). This study, therefore, adopts a subjective ontological approach not the opposing approach, objectivism ontology since the result of the study is drawn from the views of different stakeholders, policy makers, MNOs and civil society. The audience has different views and interests about the services provided by MNOs to consumers in Zimbabwe. That means the result of this study is socially constructed through a wide range of opinions (Crotty, 1998; Guba and Lincoln, 1994). This study brings together different stakeholders in the industry, thus taking the epistemological viewpoint of social constructionism, and is appropriate for the research as the interaction with relevant stakeholders is suitable for answering the study research questions. That shows that reality is formed by participants' perspectives that the world does not exist independent of our knowledge. These philosophical ideas are routinely adopted in management and other social sciences (Creswell 2009; Scotland 2012).

The researcher, from the above discussion adopts constructivist ontology and interpretivist epistemology because social constructivists believe that individuals seek understanding of the world in which they live and develop subjective meanings of their experiences, that is, meanings directed toward certain objects or things (Creswell and Creswell 2018). This research is looking at the firms/MNOs from the perspectives of interview participants (Saunders et al., 2019). As observed by Lauckner et al., (2012) the purpose of research is to understand how research participants construct their individual and shared meanings around the phenomenon of interest. This study's main aim is to explore institutional factors that influence the MNOs' service provision and as such the study stands on the interpretivist viewpoint.

Institutional factors influencing the service provision of MNOs can be understood from the subjective experiences of the research participants who experience what is going on in the day-by-day happenings of mobile phone firms. According to Weber's interpretation, social sciences recognise the subjectivity and self-consciousness of human beings as well as their freedom of choice. Interpretivists believe that the

researcher is involved with the research participants in co-constructing meaning and that is the stance of this study. Context-free generalisations are unattainable from an interpretivist position (Denzin and Lincoln 2003). This philosophical viewpoint determines the choice of research process that the study adopts. According to subjectivists, the reality in which firms exist is constructed by the perceptions and actors' actions that lie within that reality (Cresswell, 2014; Bryman and Bell, 2015; Saunders et al., 2018). There is an inseparable connection between research philosophy and research approach.

The above discussion leads to the choice of research approach which could be deductive, inductive or both methods of reasoning. The next section discusses research approaches to reasoning and the approach chosen for the study and its justification.

3.3 Research Approaches to Reasoning

3.3.1 Deductive Research Approach

Saunders, et al., (2012) describe the characteristics of the deductive process of research as the quest to explain relationships between concepts and variables; the need to operationalise concepts and an emphasis on generalisation of findings. Saunders et. al., (2012) further describe deduction as a process involving the development of a theory that is then subjected to a rigorous test through a series of propositions. Thus, according to Saunders et al, it is a dominant research approach in the natural sciences, where laws present the basis of explanation, allow the anticipation of phenomena, predict their occurrence and therefore permit them to be controlled. This reflects the post positivists' deterministic philosophy in which causes probably determine effects or outcomes (Creswell, 2003).

The deductive approach requires that a researcher begins with the theory (Rowlands, 2005; Miles and Huberman, 1994) because it involves testing of theories and hypotheses formulated at the beginning of the research project and may have been derived from existing theories. That makes deductive approach a scientific method.

Rothchild (2006) disagrees with the idea of a method of scientific practice based on so-called hypothetico-deductive system that is stated in the works of Medawar (1915

– 1987) and Karl Popper (1902 – 1994). Rothchild's (2006) analysis of the word; *deduction* means *to deduce* which could, at the same time mean, *to lead from or to draw from*, and at the same time, deduction could mean *drawing conclusion from*. In other words, deductive logic is moving from the general to the specific. Krauss (2005) observed that deductive reasoning is used to suggest theories which can then be tested. Because of the need to ensure reliability, there is always the need in the deductive approach to use a highly structured methodology to achieve the purpose of replication (Gill and Johnson, 2010).

The deductive approach is linked with quantitative research methods since it is considered a strong basis for conferring a given inquiry as scientific by the positivists and post positivists. Creswell (2003) put it in the proper context, that the scientific method that is an accepted approach to research by post positivists where research begins with a theory, collects data that either supports or refutes the theory after which necessary revisions are made before further tests are conducted.

3.3.2 Inductive Research Approach

This is an exploratory approach oriented towards movement from the unknown to what is already known. Unlike the deductive approach, the inductive approach to research relieves the researcher from constraints of prior theory, because instead, the researcher develops propositions, concepts and constitute a research purpose to be followed. That is where there is the link between inductive research logic and the qualitative research method is positioned.

The process of inductive research is the reverse of deductive in which data is used to generate theory. The idea of inductive research is not in the testing of theories to validate them or the testing of hypotheses toward finding support for hypothesised causal relationships. Rothchild (2006) asserts that in inductive approach to inquiry by starting with observations without a specific goal except learning more about the subject at hand, a flicker of meaning in the form of generalising, sometimes even a eureka will emerge from the mass of facts and lead us to look back on them from a different angle.

The theory part of inductive approach is synonymous with qualitative tradition of making meaning out of data, based on the interpretive research paradigm. In this

context, the argument that was presented by Reichertz (2004) becomes relevant according to his review:

The social order on which humans (sometimes but not always) orient themselves in their actions is constantly changing and is, 'sub-culturally fragmented'. The order(s) therefore possess only a localised validity and are continually, and – since the advent of the 'modern' – with increasing rapidity, being changed by these human beings who previously (up to a point) adhered to them (pp. 301 – 302).

The above text is relevant in understanding the basis of qualitative research tradition. The text provides two reasons for the relevance of inductive approaches to research in social science disciplines. The social order upon which actions are anchored is dynamic and not static; secondly, such social order is sub-culturally fragmented rather than standardised within the society. This provides the logic to interpret meaning from data based on a proper understanding of the context.

3.3.3 Abductive Research Approach

The abductive research approach is related to the decision regarding the researcher's approach, either to move from theory to data, data to theory or make a back-and-forth movement. The later of the three relates to abduction (Saunders et.al., 2012). Abduction refers to the incorporation of inductive and deductive logic. Abduction is the basis of mixed method approach, for instance if the approach uses both qualitative and quantitative data collection.

3.3.4 Distinction among Deduction, Induction and Abduction

The table below presents the distinction among the three types of reasoning in research – deduction, induction and abduction as defined earlier. This helps in the understanding of how reasoning is applied in the research context.

The table indicates the three different approaches to reasoning regarding, logic, generalisability, use of data and treatment of theory in each approach. This distinction helps show why a particular reasoning approach is favoured in each study.

The research context determines the choice, and in this study, the **inductive** approach is chosen as the most appropriate reasoning approach. The conceptual framework and the propositions arose from the review of literature are only a guide to the study.

Table 3 – 1 below outlines the difference among the three approaches to reasoning.

Table 3.1 Deductive, inductive and abductive approaches compared

Basis of Comparison	Deduction	Induction	Abduction
Logic	When the premises are true, the conclusion must also be true	Known premises are used to generate untested conclusions	Inferences known premises are used to generate test-able conclusions
Generalisability	Generalising from the general to the specific	Generalising from the specific to the general	Generalisation From the interactions between the specific and the general
Use of data	Data collection is used to evaluate propositions of hypotheses related to an existing theory	Data Collection is used to explore a phenomenon, identify themes and patterns and create conceptual framework	Data collection is used to explore a phenomenon, identify themes, locate these in a conceptual framework, and test these through subsequent data collection and so forth
Theory	Theory falsification or verification	Theory generation and building	Theory generation or modification, incorporating existing theory where appropriate, to build new theory or modify existing theory

Source: Saunders, Lewis, and Thornhill, 2005

3.4 Research Strategy

A research strategy is a plan of how a researcher will go about answering the research question, linking the chosen research philosophy and the methods of collecting and analysing data (Saunders et al., 2019). In social sciences, research strategy refers to how research should be conducted and what it involves (Bryman and Bell 2015). The naturalistic enquiry is characterised by research in the natural settings and by qualitative methods, purposive sampling, inductive analysis, a grounded theory approach, a case study reporting mode, the tentative application of findings, and special criteria of trustworthiness (Lincoln and Guba 1985). The qualitative research approaches include a variety of methods that seek to gain a deeper understanding and thus call for a deeper investigation.

This study is exploratory, and the case study approach is suitable for investigating the phenomenon of interest. In this study, the researcher's focus is the institutional environment that dictates the service provided by MNOs to their subscribers. Qualitative research which is often used to explore, explain, and describe the phenomena (Marshall and Rossman 2010; Yin, 2014;) is applied in this study. The reviewed literature indicates that there are few studies relating to the influence of institutional factors on the mobile telecommunications sector. A case study approach has been chosen for this study because case studies are known for theory building, qualifying of existing theory, description of phenomenon as well as testing of concepts and relationships (Remenyi et al., 2002). While case study has increasingly been accepted in theory-testing and deductive approaches, it has been criticised for its lack of generalisability (Eisenhardt, 1989; Bryman and Bell 2015; Yin 2014). This study aims at building theory and to achieve that, the case study approach is used in research.

3.4.1 Case Study Design

A case study investigates a contemporary phenomenon in its real-world context, especially when the boundaries between phenomenon and context are not clear (Yin

2009). Bryman and Bell (2015) define a case as an object of interest, and the researcher aims to provide an in-depth elucidation of it, whilst Stake (1995), describes a case as a specific, complex, functioning thing that is a bounded system and that the case is an integrated system whose parts do not have to be working well. Stake (1995) gives examples of: people, programmes, events, and processes as prospective cases.

A case study is an in-depth exploration from multiple perspectives of the complexity and uniqueness of a particular project, policy, institution, programme, or system in real life (Simons 2009). Simons also emphasises that a case study should not be seen as a method in and of itself, but rather a design frame that may incorporate several methods. In other words, a case study is not preset or structured by a causal theoretical model but follows issues and circumstances as they emerge. Simon's definition fits well with this study.

A case study is an empirical enquiry that investigates a contemporary phenomenon. A case study allows the researcher to use interviews, archival documents, and observations to collect data. The use of multiple sources makes it possible to compensate weaknesses of one approach with the strength of another (Yin 1984, 2018; Eisenhardt 1989; and Blumberg, et al., 2011). A case study also allows the investigators to retain the holistic and meaningful characteristics of real-life events, for example, organisational and managerial processes (Kohlbacher 2006). Yin (1981) sees case studies as the preferred strategy in exploratory research of which questions of '**how**' and '**why**' are asked.

A case study design differs from ethnography (focus on culture) and phenomenological study (focus on a phenomenon) (Stake 1995). Case study research emphasises the embeddedness of a phenomenon in its real-life context unlike experiments that divide the phenomenon from the context and often isolate the phenomenon from the natural context that is placed in a laboratory setting. Case studies provide local knowledge that is time- and context-bound as they are carried out in the ordinary setting and natural habitat of the case and not in a special scenario created by the researcher (Abma and Stake 2014).

Naturalistic case researchers aim at offering comprehension in terms of understanding as opposed to explanation, that is, interpretive understanding, understood from the interpretivist research tradition (Schwandt 2001). Interpretive social scientists view

knowledge, including scientific knowledge, as historically situated and entangled in power relationships and they are constructivists in that they see the world as socially made (Wedeen 2010). The question is not whether the findings can be generalised to a wider universe, but how well the researcher generates theory out of the findings (Mitchell 1983; Yin 1984).

3.4.2 Case Studies in Management

Case studies are considered as having high value in disciplines such as education, management, public administration and social work (Starman, 2013). The management science disciplines are known to have applied the case study method in conducting research. An observation by Gibbert et al., (2008) was that there has been more than 20 years of slack and there appears to be a resurgence of interest among management and strategy researchers in the use of case study as a method of generating and testing theory. An assertion by Schell (2012) was that there was a heavy reliance on case studies as a method in management studies and organisational theory for the collection of data and as a type of infrastructure analysis.

There seems to be evidence of growth of case studies growth in management research as evidenced by a considerable number of academics who have examined the state of case study research in management sciences. Marketing and operational research are some of the management areas that have applied qualitative research.

The two common approaches in case study research are those suggested by Yin (1994) and Stake (2006). At the same time, case study research method has also been supported by Merriam (1998) who has contributed towards the case study method. Yin and Stake have different approaches to case study in whether emphasis should be placed in the intrinsic value of the case or whether the case should be used instrumentally to understand an issue or theory (Abma and Stake 2014; Stake, 2000).

Yin's approach leans toward investigation whilst Stake's emphasises on focus on a specific case under investigation. The two authors differ in that Yin tends to favour multiple case study method, whilst Stake advocates for the single case method (Abma and Stake, 2014).

From the above discussion, this thesis will go by Stake's interpretivism-oriented than Yin's. Investigating institutional factors influencing the service provided by MNOs in Zimbabwe, it is more appropriate to design the study as a single case of Zimbabwe.

This study explores institutional factors influencing the service provision of MNOs and thus the study aims to develop a theoretical model from the investigation. The case study approach enables the replication of findings (Yin 2014) and thus fosters the development of a richer theoretical framework (**figure 5.1**) and contribution to theory building. Advantages of case studies include increasing external validity of the study; theory is rigorously tested and improves generalisability and will provide a full understanding of MNOs service provision.

3.4.3 Rationale for the Case Study Approach

Case studies were one of the first types of research to be used in the field of qualitative methodology and now account for a large proportion of the research presented in books and articles in several subjects (Starman 2013). The ontological and epistemological position and other characteristics of this study call for the case study approach to be used. The case study approach has been chosen for this study because of its use of multiple sources where the phenomenon can be seen from multiple perspectives; observations; structured and semi-structured interviews and available data simultaneously. This scenario contributes to validity as there will be an integration of perspectives in the gathering of data, that is, triangulation of data. These multiple perspectives illuminate a case from different angles to triangulate by combining methodologies (Johansson 2003). These multiple perspectives help shed light on a phenomenon diffused more by its context than other approaches. Adopting case study allows the researcher to detect patterns and potential explanations that the researcher first neither expected nor looked for which makes it a good approach in theory building. More unanticipated themes emerge from the interviews and that brings richness to the research.

The objective of a case study is to understand real problems and to use gained insights for developing new explanations and theoretical dispositions. For instance, some previous research on MNOs service delivery has been on the quality of service, tariffs, network coverage and so on, but wherever these services impacted the subscribers, previous research had not investigated institutional factors, nor carried out interviews

with the people involved in service provision to establish how their operational environment treated them. Previous studies used surveys to establish the perceptions of subscribers. Thus, this study is meant to discover how institutional factors impact the service delivery by MNOs through interviews and various archival documents. By using the case study approach, the “Why” and “How” questions were answered. Institutional factors, for example, seem to have been the cause for poor service delivery and “how” these impacted the service will be unveiled by this study. When using semi-structured or unstructured questions, sometimes informal discussions are carried out as opposed to surveys – a crucial part of many case studies, which may suggest other sources of information to researchers, for example, archival surveys, relevant documents or existing informal material (Blumberg et al., 2011).

Criticism of the case study approach levelled at the small samples often employed has been ignored because of the strength that the value of qualitative research is accepted more widely (Buchanan 2012). Case studies collect data from various sources and hence, new insights can be generated, gaps in literature can be identified and the way those gaps can be filled, explored (Eisenhardt, 1989). In addition to this criticism, case studies are said to be lacking rigour (Yin 2009; 2014). To counter this criticism, there should be a clear research design with a clear question.

3.5 Sampling Strategy

This study uses purposive sampling, a type of nonprobability sampling. Purposive sampling is a non-probability sampling in which the researcher aims to sample participants in a strategic way, so that those sampled are relevant to the research questions that are being posed (Bryman and Bell 2015). In this study, participants are chosen by virtue of their ability to supply the researcher with the information required to answer the research questions. Participants who interact with, say, government agencies, in the handling of licensing of the MNO, for example, would be the ideal participants. The selected participants are relevant since they can provide rich information and that overrides the criterion of representativeness experienced when random sampling is used (Eisenhardt 1989).

The researcher chooses participants according to the positions they occupy in the MNOs and those who are in the public eye, for example, members of parliament, lawyers and people in organisations that stand for the rights of consumers. This type

of purposive sampling is called judgemental sampling because the researcher uses their own judgment to select sample members who conform to some criteria (Blumberg et al., 2011). Judgmental sampling is ideal in the early stages of an exploratory study (Blumberg et al., 2011). However, since the researcher uses own judgment, it is most likely that not all the chosen participants will supply all the information needed by the researcher.

Study participants in this research were selected according to their relevance to the research question, that is, their ability to furnish the researcher with the answer to the study question. The selection of study participants who can provide rich information overrides the criterion of representativeness, so that a random approach to sampling is of little consequence (Carson et al., 2001, Eisenhardt, 1989).

3.6 Research Methods

Research methods determine the way research data is collected. The most frequently used research methods in social science are qualitative and quantitative research methods. Researchers may choose to use one of these methods, that is, the Mono Method, or may choose to use both, that is, the Mixed Methods approach. The choice of method depends on the questions and objectives of the study. In the following section the two research methods, qualitative and quantitative will be discussed, a choice for this study made, and the justification provided.

3.6.1 Qualitative vs Quantitative Methods

Qualitative research represents an array of interpretive techniques which seek to describe, decode, translate and otherwise come to terms with the meaning, not the frequency of certain naturally occurring phenomena in the social world (Van Maanen 1983). Qualitative research is a way of exploring and understanding the meanings that individuals or groups assign to social or human problems whilst on the other hand, quantitative research studies rely on quantification, that is, numbers and figures, while qualitative studies base their accounts on words, sentences and narratives (Blumberg et al., 2011, Bryman and Bell 2015). Qualitative research focuses on naturally occurring ordinary events in natural settings which provide a sense of what real life is like (Miles and Huberman 1994). Business and management research can use either a quantitative or qualitative approach, but the answers obtained may be different

because the nature of the research questions asked depends on the perspective (Blumberg et al., 2011).

Qualitative research entails the inductive approach where theory is an outcome of research, whereas the quantitative approach incorporates a deductive approach where theory guides the research (Collis and Hussey 2013). Qualitative research is concerned with the processes of collecting data rather than the resulting outcomes (Merriam 1988). It places more emphasis on the way in which people generate a detailed perspective of personal lived experience and how they make sense of that experience. Qualitative researchers have a wide variety of strategies to choose from, that is, case study, grounded theory, narrative research and ethnography and on the other hand, quantitative researchers conduct experiments and survey, using questionnaires, structured interviews or structured observations (Saunders et al., 2019).

The choice will depend on the research problem, whether the research is explorative, descriptive or causal, the expected outcomes and the information that the researcher wishes to obtain (Blumberg et al., 2011). The researchers' philosophical views, ontology and epistemology determine the researchers' choice of approach. This study adopts the constructivist ontology, whose assumption is that there is no single truth or reality but that there are multiple realities (Creswell and Creswell 2018). The interpretivist epistemological assumption underlying qualitative research is that knowledge is developed through subjective experiences of people, and therefore, it is important to conduct studies in the field where participants live and work (Creswell and Creswell 2018). The qualitative research approach provides an in-depth understanding of the research topic through its use of several instruments (Easterby-Smith et al., 2002). The qualitative approach uses interview methods, case studies, and focus groups (Creswell and Creswell 2019). In the study of institutions and their influence on people and organisation and markets, interview methods are often used (Greenwood and Suddaby, 2006; Lounsbury 2007).

Quantitative research methods entail the collection of numerical data and show the relationship between theory and research as deductive, with a predilection for a natural science approach and as having an objectivist conception of social reality (Bryman 2004). Quantitative methods are often used in studies that seek to explain

relationships between variables or to predict outcomes based on objective findings (Easterby-Smith et al., 2002). That means, quantitative methods are used in studies that seek to explain relationships that exist between variables or to predict outcomes based on objective findings and seek out objective, scientific, statistical findings rather than qualitative that provides true meaning of phenomena (Glitz 1997).

3.6.2 The Rationale for Adopting Qualitative Methods

Researchers adopting the quantitative approach apply measurement to social life (Blumberg et al., 2011; Bryman and Bell 2015). This approach has met with criticism from interpretivists for treating social actors the same way as objects without considering the social actors' perspectives. To address the research questions, this study relies on detailed narrative accounts by the interviewees and as such uses words in the analysis of results. In that case, the quantitative approach would not have been relevant for this study. Interpretivists apply knowledge by developing an understanding of phenomena through investigation and analysis of those phenomena (Blumberg et al., 2011). Understanding the institutional factors impacting the service delivery by MNOs can be achieved by having the investigator interact with the social actors who are part of the day-to-day functioning of MNOs. This can only be possible by adopting the mono method, qualitative methods that are common with the interpretivists and not quantitative methods that are favoured by positivists.

This study seeks to understand phenomena by deeply investigating and analysing them using words and hence, the study approach will be interpretivist. Qualitative research enables the interpretation of a phenomena by focusing on discovering meanings and new insights (Zikmund 2009). On the other hand, the quantitative approach believes in the researcher taking an etic approach (researcher not directly involved) while the qualitative researcher believes in information being gathered through talking directly to people and in some cases, seeing how they behave and act within their context (Creswell and Creswell 2018). The current study gathers information from people who are directly involved with MNOs as well as interacting with the institutions. This research honours the lived experiences of the social actors, and the way they view the world around them, rather than the imposition of an external researcher who uses an instrument to make conclusions.

Contrary to the quantitative research method in which participants only answer what has been asked by the researcher, there is no option for respondents to add more information because the answers are fixed. However, in qualitative research, apart from answering the questions put forward by the researcher the respondents can bring in information that the researcher was not anticipating (emerging) because of the openness of the questions asked by the researcher that allow the respondents to talk as much as they can. Qualitative research has several research designs from which researchers can choose, and these include, among others: narrative, phenomenology, ethnography, case study and grounded theory (Merriam, 2009; Creswell and Creswell 2018).

Unlike in a quantitative study where the researcher should arrive at the frequency with which a phenomenon is most likely to happen, in a qualitative study, the goal of the researcher is to develop and generate insights (Hyde, 2000). To achieve this participants' accounts and the drawing of conclusions should be provided (Hyde, 2000; Williamson, 2006). The data collected is associated with the perspectives of participants' experiences and the researcher attempts to make sense of the data (Williamson, 2006; Stake, 2010).

In this study the researcher and participants are co-constructing partners generating meanings (Crotty, 1998; Williamson, 2006). The researcher draws insights from various stakeholders from varying backgrounds, who have practical experience of MNOs in Zimbabwe. Stake (2010) states one of the weaknesses associated with qualitative research is that it may lead to misunderstandings and bias as the researcher tries to make meaning of the gathered data. To correct this shortcoming, the research can use triangulation of data where the researcher checks data against other secondary sources, for example, previous studies from GSMA, ITU, POTRAZ, Consumer Council of Zimbabwe (CCZ) publications and other online articles.

3.6.3 The research process and the role of the researcher

The previous section mainly justified the choice of methodology adopted by the study. This section explains how research was implemented. Firstly, the section identifies stakeholders who contributed to the success of this study. These are the people who hold key information that is vital to answer the research questions (Saunders, and Townsend, 2016). The section will also address the issue of bias labelled at qualitative

research approach as the researcher's participation in the study and the research process are explained.

The participants for this study included people whose decisions are likely to shape or make the telecommunications sector. Identifying and engaging relevant stakeholders is crucial for the development of a more effective and proactive solution in this fast-changing telecommunications sector.

The identification of stakeholders is also crucial for the success of this study because this holds key information that contributes to answering the research questions (Saunders and Townsend, 2016). Previous research was done in different contexts, and it is therefore, befitting for this study to select civil society representatives who play key roles in Zimbabwe and witness the day-to-day operations of MNOs in the country. These include civic society,

3.7 Research Design and techniques

The choice of qualitative or quantitative research method will not get the researcher very far without a plan as to how the research will be conducted, that is, the steps taken to do the research. There is a need for a research framework to guide the researcher in the collection and analysis of data. This framework reflects decisions about the priority being given to a range of dimensions of the research process (Bryman and Bell 2015). This section details the phases of the project (Blumberg et al., 2011). Saunders et al., (2019) define research design as the general plan of how a researcher will answer the chosen research question. The plan, according to Saunders et al., (2019) includes a clear objective derived from the research questions that specifies sources of data collection, data analysis and ethical issues.

The research design maps out the chronological order of activities that take place during the entire research process, indicating how data is generated and analysed. This study employs an inductive approach comprising a case study and the use of semi-structured interviews. This necessitates the use of an interview guide containing a list of specific questions and that the questions will be asked in a similar manner for all participants. The study did not opt for unstructured interviews because while there is a great deal of information generated by unstructured interviews, it is difficult to note it all.

The following sections indicate the techniques the study uses to collect, analyse and interpret data in the research process.

3.7.1 Generation of interview questions and identification of participants

The study interview questions emerged from the review of previous literature, Chapter 2. This was in relation to mobile telecommunications in general, in the African context, SADC region and finally, pertaining to Zimbabwe. During this process key issues emerged, and propositions were drawn. Study participants were chosen via personal contacts and LinkedIn. These included former and current employees of case MNOs. After accepting the connection, the researcher communicated the acknowledgement and asked if future communication could be via email or WhatsApp. Thereafter, communication was via email and WhatsApp. Consent and acceptance were sent and received via the two media.

In this study different groups of people included: mobile telecommunications vendors, civic leaders, academics MNO representatives current and previous whose experience and interactions with the mobile telecommunications could help shape the sector. According to the researcher, the identified stakeholders have the information needed to answer the study questions (Saunders and Townsend, 2016).

Table 3.1 gives an account of each participant to the study and the categories under which they fall. Information that could lead to the identification of informants is not included in table 3.1.

Interviewees represented different stakeholders, and it is likely that their comments would have some bias on certain questions. For example, the comment by participant.... “The regulator is trying...” in support of the regulator could have come from stakeholder that has had favour from the regulator, and hence there could be some biases.

Participants who no longer work for the MNOs might give genuine answers, but if they did not leave the employ amicably, these are likely to have given their personal feelings about the MNO more credible responses than those who still work for the provider.

Participant 8 for example, “if you do not know anyone in the organisation, you do not get promoted no matter how hard you work.” This could have been the reason for the participant to leave employment by the MNO. Here too, there could be some biases.

The comments of interviewees regarding the service offered by MNOs provide useful answers of how the service problems could be mitigated.

3.7.2 Data Collection Process

This section details how data will be collected, and from whom, how it will be analysed, and the entire process of data collection up to the analysis stage. The sampling strategy and characteristics of the participants will also be discussed. The data collection procedure will also be outlined. Prior to the collection of data, application and ethical approval by the university ethical committee was sought. The study uses semi-structured interviews to obtain primary data from participants from the three MNOs. Archival documents, documents in the public domain and civic leaders were also consulted.

The first step in the process is the review of archival documents.

3.7.3 Archival Documents

There are six main sources of evidence, which include, archival records, documentation, interviews, direct observations, participant observations and physical artefacts (Yin, 1994). It should be noted that sources of information each have their own strengths and weaknesses.

Archival Records: GSMA databases, World Bank databases and ITU, and country-specific telecommunications, POTRAZ reports etc. These records have the following strengths: they are stable and exact; can be used repeatedly; and attract no attention or obstruction own strengths and weaknesses. However, no source of information can be without weaknesses. Archival records: may be difficult to access; difficult to retrieve; biased reporting.

Documents: relevant literature, GSMA, ITU and other relevant reports by Information and Communications Technology specific to SADC individual SADC member states. Online sources; ITWeb Africa, ITNews Africa, Financial Times and others. Weaknesses and strengths: These have the same strengths and weaknesses as archival records.

Interviews: Former and Current employees of MNOs; Mobile telecommunications vendors and civic society leaders:

Strengths: broader issues can be explored; help identify other sources; insightful because it provides perceived causal relationships; broader issues can be explored.

Weaknesses: might be biased due to poorly constructed questions; biased responses; gaining access to participants may be challenging; difficulty of getting trust by participants.

To make sure that the above weaknesses do not compromise research results, triangulation was applied to this study. Figure 3.1 shows how this was done as indicated by the arrows.

Triangulation refers to the use of multiple methods or data sources in qualitative research to develop a comprehensive understanding of phenomena (Patton, 1999). Triangulation also has been viewed as a qualitative research strategy to test validity through the convergence of information from different sources.

These documents provided much useful background information that helped in framing interview questions, fieldwork and in the writing up phase of the study (Myers 2020). Documents are an additional source of data as a supplement to interviews and field work rather than on their own. They can be used to cross-check findings with other sources because they are visible and traceable (Prior 2003).

Archival sources for this study include published regulations, policies, reports and papers by telecommunications authorities in the country. Reports from Global System for Mobile Association (GSMA), consumer support groups, ITU country-specific (Zimbabwe) reports, SATA reports, the country's telecommunications policy documents including licensing and relevant newspaper articles were consulted. Administration papers produced by governmental and private agencies were analysed as they are the single and most important category of documentary sources used in social research (Scott 1990).

These documents are formidable sources of data and easy to judge if they apply to the study or not. The advantage of using these documents as research sources is that they provide factual data and historic background of their development. Documents can be treated explicitly as texts or social products that have consequences in themselves irrespective of their authors' intentions by providing context and meaning to events reported in other documents (Karppinen and Moe

2012). Consulting archival documents assists in shaping interview questions and provide a more balanced picture and thick description (Miles and Huberman 1994). The problem with archival sources is that they were not compiled for this study. If there were any mistakes in the compilation of information contained in those documents, that means that those mistakes would be included in this study. However, to quell this problem, triangulation was used to increase the validity of this study results (Bryman and Bell 2015).

The idea of consulting these documents was to elicit information relating to factors that influence the provision of mobile service by MNOs. It is logical that the analysis of documents be followed by a pilot study, which is yet another way (practical way) of perfecting questions ahead of the main study interviews.

3.7.4 Pilot Study

The pilot study pre-tests the chosen study method, but on a smaller scale (Zikmund 2003). This phase of the research process explores the feasibility of the study and helps clarify the researcher's understanding of the problem areas which helps modify the study questions and to inform the researcher what to expect in the investigation (Saunders et al., 2019). This part of the study identifies and rectifies logical and analytical difficulties in the research design, unclear questions as well as incorrect routing (Scott and Marshall 2003). In other words, this is a form of mock research before the main research exercise is conducted. Pilot interviews inform the conceptual framework constructed from the literature in the previous chapter. The pilot study helps in shaping the investigation process, revisiting of research questions and drafting the interview protocol and interview guide. The pilot study highlights problems that could be present in the design of the study and if there are any pitfalls, these are rectified before the main data collection exercise begins. It also helps ascertain the extent at which the process of data collection would meet the objectives of the study. Conducting a pilot study enables the researcher to resolve issues and to anticipate what could be encountered in the main study (Axinn and Pearce 2006). The pilot study also reveals if the study left out any key people who could be included in the interviews. Since it was difficult to recruit participants for this study, the first three participants served as pilot study. There were adjustments to the interview protocols after these first three interviewees, who are also part of the sample interviewed.

Adjustments were made on the study questions. Initially the study sample was meant to comprise of managers from the three MNOs. Unfortunately, there was no response from the management of the three MNOs, and civic leaders had to be incorporated into the study. For instance, a question that was meant to be directed at MNOs managers “What do you think of the service that **YOUR** company offers to subscribers?” vs What do you think of the services offered by **MNOs** in Zimbabwe? “What are your views about the services offered by your organisation to consumers/subscribers in Zimbabwe?” “What are your views about the service offered by MNOs in Zimbabwe?” The succeeding questions were prompts emanating from answers given for the first question.

The pilot study revealed infrastructural problems and that led to the adjustment of the conceptual framework to include infrastructural issues in the study. All pilot participants bemoaned the problem of power cuts that affected the mobile telecommunications services in the country.

3.7.5 Interview Protocol

Interviews are known to provide researchers with rich and detailed qualitative data for understanding participants’ experiences, how they describe those experiences and the meaning they make of those experiences (Rubin and Rubin 2012). Castillo-Montoya (2016) suggests that qualitative researchers strengthen the reliability of their interview protocols as instruments by refining them through the Interview Protocol Refinement (IPR) framework. According to Castillo-Montoya, (2016) the interview protocol comprises four phases:

Firstly, the researcher should ensure that interview questions align with research questions as this increases the utility of interview questions in the research process, confirming their necessity, and, thus, eliminating unnecessary ones. According to Seidman (2013) the purpose of in-depth interviews is not to get answers to the question but to understand the lived experiences of other people, in this case, the participants/interviewees. Secondly, the researcher must focus on constructing an Inquiry-Based Conversation. Here, the researcher asks questions for specific information related to the study (Patton 2015). Interview questions are written differently from research questions (Rubin and Rubin 2012). In this study, questions relating to corruption can be asked in a conversational manner to solicit for answers.

The researcher's questions are usually formulated in a theoretical language, whereas the interview questions should be expressed in the everyday language of the interviewees (Brinkmann and Kvale 2015). The third phase of the interview protocol is receiving feedback which involves reading and thinking aloud-activities (Castillo-Montoya 2016). The three activities mean that the researcher has come up with an interview protocol that is in line with the study's purpose using the conversational route that is enquiry driven. The final step is the piloting of the interview protocol.

The interview protocol is there to support the researcher's efforts, but it does not mean that the researcher does not use his/her intuition to dislodge himself from the protocol (Merriam 2009). That means, whilst the interview protocol is a research instrument, the researcher is the most useful instrument in a research study, especially in situations where events do not turn up to be what was planned.

3.7.6 Participant Recruitment

This was one of the most difficult phases of this research. Access to the identified audience for this study was a challenge.

This is the stage of negotiating access to participants and soliciting their cooperation in the study. Participants were identified via LinkedIn but gaining access to them was one of the major challenges of this study (Bryman and Bell 2015; Easterby-Smith et al 2012). The participants were contacted via LinkedIn, and most of those contacted responded positively, and an information sheet and consent form were then sent. For most of them that is where it ended. Follow-ups were made through LinkedIn and for some, via WhatsApp. After two weeks another follow up was sent and no further follow-ups were made after that. A few agreed to participate by sending completed consent forms. There was a need to repeat the process of searching the Internet and in particular LinkedIn for contacts, and from relevant publications. Those who agreed to take part did not seem comfortable at the start of the interview, but continued reassurances of anonymity and confidentiality made participants feel at ease and engage in the discussions. That led some of those participants suggesting other names (snowballing) of possible participants. Snowballed participants were contacted, but most of them did not respond after an information sheet and consent forms were sent to them. The researcher also used her own contacts, from church (in Zimbabwe) former workmates, but that did not help. One of the contacted people who works for

an MNO said, “I am sorry, but the organisation does not allow us to get involved in research”. This person referred me to POTRAZ, who I had already contacted but had failed to get an interview with any of the employees there. It was also disappointing that no response was received from ITU office in Harare where the contacted person had agreed to take part. After an information sheet and consent form were sent nothing came from the ITU office. Follow ups were made but, without success.

Interviews were conducted online. In total 13 interviews conducted, eleven interviews were conducted on Zoom and two on Teams. Since interviews were conducted online, there was yet another problem. Some of those who agreed to participate in the interview had either network problems or electricity problems. Poor network quality and unavailability of electricity were common during this study. There were instances when the network would go off during the interview, and that would be the end of interview. Where there was no network or power problems, participants did give good interviews. Eight agreed to have the transcript back for verification with a few additions to the transcript. Confidentiality and anonymity were emphasised throughout and that way participants built some trust, with some snowballing others but unfortunately, responses were very few, with only two ‘snowballed’ participants going through to the interview stage.

Those currently working for the MNOs were reluctant to accept the interview, but those who had some business with MNOs or had left the MNOs’ employ were willing to be interviewed. Responses from civic society provided useful information for the study, even though the research would have benefited more from people who are directly involved with the day-to-day operations of MNOs. As a result, a total of **5** civic society participants were interviewed, and **8** stakeholders connected to MNOs were interviewed. This is supported by Saunders, (2012) Saunders and Townsend, (2016) who recommend that for a heterogeneous population 12 – 30 participants are acceptable.

The researcher concluded that because of the unpredictable political situation in the country. Some of those who were approached for interview did not participate perhaps for fear that what they would say could land them into trouble with the authorities. Understandably, the telecommunications sector is a highly sensitive sector in which the government maintains a watchful eye. For those working for private MNOs, it is

obvious that they would say a lot about political issues influencing the service as they might have a lot of evidence relating to the treatment of private MNOs by government through POTRAZ.

Conducting face-to-face interviews would not have made any difference. If anything, the situation would have been worse because two people coming together or for one to be seen to be talking to an unfamiliar person, can subject one to scrutiny. The method of collecting data was appropriate for this study.

It is likely that the situation is common in most African countries, and hence the lack of research on the continent. Table 3.2 below shows a list of participants and the organisations they represent.

Table 3.2 List of participants

Date of interview	Participant	Organisation	Medium	Duration of interview	Transcription pages 1.5 line spacing
14/03/2023	1	MNO	Zoom	35 minutes	2 pages
30/03/2023	2	Civic leader	Zoom	40 minutes	3 pages
05/04/2023	3	MNO	Zoom	50 minutes	5 pages
24/04/2023	4	Civic	Zoom	45 minutes	4 pages
27/04/2023	5	MNO	Teams	45 minutes	1 page (recording problem)
27/04/2023	6	Civic	Zoom	40 minutes	2 pages
03/05/2023	7	MNO	Zoom	50 minutes	4 pages
08/05/2023	8	MNO	Zoom	60 minutes	4 pages
19/05/2023	9	Vendor (telecom)	Zoom	80 minutes	7 pages
08/08/2023	10	Civic	Zoom	85 minutes	5 pages
18/08/2023	11	Technician (telecom)	Zoom	90 minutes	7 pages
25/08/2023	12	MNO	Teams	40 minutes	5 pages
30/08/2023	13	Civic	Zoom	35 minutes	4 pages

Source: Author

The next section, 3.7.7 details how data from the interviews were analysed and the reasons for using Thematic Analysis.

3.7.7 Thematic Analysis (TA) of interviews

Thematic Analysis is a method of identifying, analysing and reporting patterns (themes) within data and is considered a foundational method for qualitative analysis (Braun and Clarke 2006; 2022). TA can be conducted in different ways since it is not tied to a particular theoretical framework (Braun and Clarke 2006). For this research it is conducted inductively and deductively and is theory-driven because the study seeks to build theory. The idea of using TA is to identify and examine data patterns or themes, a procedure that involves reduction of data, data display and conclusion drawing and verification (Miles and Huberman 1994). TA can be used to analyse qualitative data sets, as well as smaller ones leading to rich descriptions and

theorising. The nature and flexibility of TA mean that it is straightforward to use in comparison to some of the techniques (Saunders et al., 2019). Saunders et al., (2019) suggest a four-stage thematic analysis procedure in contrast to Braun and Clarke's six-stage TA procedure that has an additional two stages, detailing the definition and naming of themes as well as writing the report. Braun and Clarke's first four stages of the TA are the same as those of Saunders et al., (2019).

The researcher firstly **familiarises** with the data from interviews by reading through each data item individually. This is the stage that is characterised by reading and re-reading of interview transcripts. The understanding of the first stage facilitates the second stage, **coding** of data. You cannot code data unless you understand it, and hence the importance of the first stage of the process. At this stage of the analysis process, codes or labels that symbolise the extract meaning are generated (Saunders et al., 2019). Codes can be in the form of one word or short phrase that can be abbreviated. Once codes are formed, merging data with similar meaning from the one already formed will be given the same label. The third step is the generation of **themes** and recognising their relationships. This is followed by the **refining** of themes and **testing** propositions, that is, the fourth stage. Braun and Clarke's (2006; 2022) process includes stage five, **defining** and **naming** of themes; and stage six, **producing** a report.

This study adopted Thematic Analysis (TA), a method of developing patterns, across a qualitative dataset involving systematic processes of data coding to develop themes, which, of course is the ultimate analytic purpose. The researcher adopted Braun and Clarks (2006) six stage approach as shown in Table 3.3.

Using thematic analysis in this research helps in explaining institutional factors influencing the service of MNOs in Zimbabwe.

Miles and Huberman, (1994), Braun and Clarke, (2006) suggest the benefits of TA, with Miles and Huberman (1994) stating that provisional themes can be set out before the actual data collection and that that would help connect research questions to data. This study has made prepositions emanating from the review of literature in Chapter 3, before the start of data collection and thus agrees with the assertion of Miles and Huberman (1994). In this case the propositions are the provisional themes. In addition to that benefit, Braun and Clarke (2006) state that TA allows data to be coded with a

focus on specific research questions set by the researcher before the start of the research. This research not only used the propositions, but upon the collection of data, other themes emerged and that shows that data spoke for itself even though there were predetermined propositions, new themes arose. This study is rich (hybrid) in the sense that data is theoretically driven (from propositions) as well as data driven from themes emanating from collected data.

TA is chosen for this study because it connects data and the research question by defining elements within the data in relation to the research questions (Braun and Clarke 2006). TA is a flexible method that permits broad interpretations of the researcher's data. It has a great number of advantages, and thus the most used method of analysis in qualitative studies (Braun and Clarke, 2006).

Braun and Clarke (2006) posit:

TA should be seen as a foundational method for qualitative analysis. It is the first qualitative method of analysis that researchers should learn as it provided core skills that will be useful for conducting many forms of qualitative analysis. Through its theoretical freedom, TA provides a flexible and useful research tool which can potentially provide rich and detailed, yet complex account of data (Braun and Clarke, 2006, p.78).

The above quote justifies the adoption of TA in this thesis. For this study, understanding the factors influencing the service provision of MNOs can be accomplished by using Braun and Clarke's TA. Using TA in this thesis clearly helps highlight participants' experiences and perceptions.

By adopting TA in this thesis, the researcher can connect ideas, make sense of important issues and then arrive at a conclusion (Miles and Huberman, 1994). TA was chosen for this study because in qualitative research it provides rigour, and that applies to this study. Braun and Clarke, (2006) demonstrated the usefulness of TA, its ability to identify, analyse and report patterns/themes within data from interview scripts and documents. In addition to that Braun and Clarke (2006) contend that one of the benefits of thematic analysis is that it allows data to be coded, targeting specific research question set by the researcher at the start of the research. Strauss and Corbin (1990) believe that data should be developed from examining the data because themes before data collection may not be suitable for some research.

This study adopts a hybrid TA, that is both theoretical and data driven. The theoretical framework is predetermined, as it was drawn before data collection but what counts in the study is the data that determines what is important and what is not.

Thematic analysis was adopted for this study using the six-stage approach suggested by Braun and Clarke (2006). The method of analysis was chosen to answer the specific research questions for this study. Thematic analysis helps connect ideas and makes sense of important issues and finally arrives at a conclusion (Miles and Huberman, 1994). Braun and Clarke (2006) are in favour of thematic analysis and argue that it is important because it provides rigour in qualitative research. Braun and Clarke (2006) argue that thematic analysis is used to identify, analyse and report patterns (themes) within data, that is, transcripts and documents, and hence its suitability for this study. Thematic analysis helps social researchers to outline themes that can answer research questions.

TA for this thesis has helped unpack the institutional factors that can influence the services provided by MNOs. Other methods, like content analysis would not have been suitable for answering questions for this study. Content analysis, even though it has been found helpful to researchers in understanding predominant concepts in the data set, it is believed that content analysis removes meaning embedded in the context (Baun and Clarke, 2006). In view of the above explanation, the most suitable analysis of this thesis is thematic analysis (TA).

The researcher transcribed the recorded interviews as soon as the interview was concluded. Since the interviews were spaced, this gave the researcher ample time to play back the recorded interviews and immerse self with the data, thus, reading and re-reading of transcripts to establish patterns and assigning labels to data (Braun and Clarke, 2006). This helped the researcher familiarise with each script before the following interview. The transcripts were shaped according to the guides, A and B and MS word was the tool used to analyse data. The process also highlighted text that related to the factors indicated on the proposed conceptual framework as influencing the service offered by MNOs. Table 3.3 below is Braun and Clarke's six-stage thematic analysis.

Table 3.3 Thematic analysis

Stages	Description	MS Word Analysis
1.Familiarising With Data	Transcribing, reading and re-reading of data and notetaking ideas on factors influencing the service offered by MNOs in the country.	Uploading transcripts into created MS Word table and further reading of transcripts
2. Generating Initial Codes	Noting down codes relating to each of the propositions and re-reading the text and underlining some portions of the text.	Themes generated in the literature review were highlighted and listed in the created column.
3. Searching for themes	Initial codes sorted, resulting in the formation of themes and subthemes.	Researcher created codes and put them together, accordingly, forming themes and subthemes.
4. Reviewing themes	Each theme was examined to check if data if data matched the sub-themes.	Created category of themes and sub-themes revisited for accuracy.
5. Defining and naming themes	Refining and ascertaining themes and assigning names to them.	Organisation of themes into overarching category of themes and sub-themes for analysis.
6. Writing up of findings	Data extracts related to each theme selected for analysis.	Extracts of data presented in Chapter 5, and reference to themes was also made in Chapter 6, the discussion chapter.

Source: Adapted from Braun and Clarke, (2006)

Coding

Coding refers to the labelling of some parts of data, and themes refer to grouping codes into similar or dissimilar features, that is, moving the analysis from an initial level to a higher level and thus, allowing an in-depth discussion of what happened and the surfacing of more meanings (Saldana, 2016).

Themes are analysed and discussed further to make meaning. The 'theming' and coding activity reduces the volume of data to make it more meaningful and simpler to understand. See exemplar in **Appendix F**. In part, the literature in chapter 3 in a way assisted in the coding since propositions were borne out of the literature, and the research was to confirm or refute the five propositions that emanated from the literature.

The reader of the completed analysis will understand the whole process of research from the narrative that has been developed that is, connecting the literature and findings (Aronson 1994).

3.8 Main Data Collection and Analysis

The study is abductive, and it is using case study. According to the abductive approach, the research propositions are tested using the deductive and inductive approaches (Peirce 1955). This was done iteratively as the study progressed. Using the iterative process, which was suggested by Miles and Huberman (1994) data was analysed by constantly transforming fieldwork into notes and comparing those notes to the theory and extant literature. This way, the gaps in literature were filled as the empirical results surfaced. As mentioned at the beginning of this chapter, there is not enough literature on the phenomenon under study, and this study is building theory and hence the iterative process sees the researcher moving back and forth from empirical data to available literature to address the gaps that exist in the literature and to address any questions that have not been answered.

The iterative process, according to Miles and Huberman (1994) is in four stages: *transcription of field notes*; *coding and preparing qualitative data*; *summarising and displaying findings* and finally, *drawing conclusions from the analysis* in accordance with the initial framework that was created from the extant literature, and hence adjusting accordingly.

Semi-structured face-to-face interviews used to collect data from the sample of interest. Interviews were recorded with permission from the respondents and interview notes were manually transcribed as data collection continued. This helped the researcher to familiarise with data being received from interviews. Since the interviews were spaced, days apart, this allowed the researcher more time to play back the recorded interviews as well as read through the transcript repeatedly. As the interviews continued, the researcher became more familiar with common responses that in the end was helpful in establishing themes. A thematic analysis (TA), applying inductive using the six-stage process of Braun and Clark 2006; 2022 is applied in this study. The transcribed interviews were exported to MS Word for analysis where codes and themes were identified

Tables **3.4** below shows the themes that arose from the analysis which related to the propositions of this study, whilst table **3.5** shows emerging themes that were not anticipated.

Table 3.4 Alignment of databases with propositions

Propositions	Participants	Participants	Participants	Overarching Category	Specific Analysis Themes
Proposition 1	Participant 1	Participant 3	Participant 5		
	Politics plays a big role in mobile telecommunications in Zimbabwe. Whatever problems associated with the service provision by MNOs emanate from government rules and regulations.	MNOs are controlled by authority from the Ministry of Information Posts and Telecommunications to authorise price/tariff reviews. Like any other government department, there is a lot of bureaucracy. Services come at a huge cost to MNOs if POTRAZ delays tariff approvals This affects the service levels because when you are running at a loss and your costs are ever increasing. How then can you keep up with the technological world?	The regulatory agency is not independent but a government arm (political) and that influences the services offered by MNOs because government dictates what MNOs should or should not do. Government ownership of the regulatory agency and MNO (NetOne) influences the service offered by MNOs.	Political Factors	Govt Influence
	Participant 8 There are service interruptions whenever there is a political figure in the area. You may experience network interruptions for three to four days. Participant 11 Government always props up their own MNO, and government is a referee, and it is their team that is playing, and they always want to make sure that their team	Participant 9 Regulator reluctant to approve tariff increases because of pressure from higher authority (ministry). Government wants to protect consumers but with operators not being able to keep up with expenses. You know, with our continent, authorities want to have things appear to be right when the opposite is the case. Participant 12	Participant 10 The political atmosphere in the country chases away investors and that includes bribery and some regulations that investors must adhere to, for example, a certain percentage of shareholding should be by locals. Zimbabwe has not had a good political landscape for many years and has distinguished itself as a country where business is difficult, and this makes		

	scores, even if it is a clear no goal, they always say it is a score.	Government is key player and regulator. Telecel, the shareholders are affiliates of government departments, Miners Association of Zimbabwe and War Veterans Association of Zimbabwe.	investors shy away from the country. Service providers must pay bribes to be registered and that makes it difficult for investors. All this emanates from bad politics		
Proposition 2	Participant 1	Participant 4	Participant 5	Regulatory Agency	Enforcement of Regulations
	POTRAZ is owned by government. Policies, rules, and regulations are set by government. There is regulatory disparity, different rules and regulations. There are regulations that apply to private MNOs that do not apply to government-owned MNO. State-owned MNO not monitored whilst private MNOs heavily monitored.	POTRAZ is a corrupt parastatal where MNOs must grease the wheels of commerce before being licenced. Regulations are there but implementing them is a problem.	POTRAZ is government owned. Telecommunications in the country is a highly regulated and sensitive sector. Monetary transactions are highly regulated for both sender and recipient.		
	Participant 8 We have regulations that affect certain bodies but not affect others. MNOs that are parastatal are not as highly regulated as private entities and so you will find that the service offered by the private entities will not be as easy in terms of Know-Your-Customer (KYC). Your KYC will be quite excruciating. For example, the process of just getting a line (SIM card) you need the person to be present physically, their ID	Participant 9 POTRAZ advises MNOs to stagger tariff increases but then by the time they get to the next adjustment, inflation would have shot up. This grossly affects the service offering since they cannot do much with a small income.	Participant 11 Privatising the sector is the way to go, and independence of POTRAZ is required. There should not be too much government intervention, but POTRAZ should stand by itself.		

	and money for the line. Whereas for government MNO subscribers, just an ID and money would suffice, no need for them to be physically present. There is also price disparity. You get a provider giving airtime of US\$15 for 10 gigabits, the other US\$10 for 10 gigabits, and another charging US\$5 for 15 gigabits. These MNOs go through the same governing body, POTRAZ, to get approval for prices. The logic behind it is not consumer-centric whichever way you want to look at it.				
Proposition 3				Overarching Category	Specific Analysis Themes
	Participant 1 Infrastructural components like booster are very expensive. Apart from being expensive to purchase, customs duties levied on them are heavy. Obviously for the company to be viable, consideration of these heavy customs charges should be recognised when working out the tariffs charge by the company. The government, through POTRAZ decides on tariffs without considering the input of the MNO. Infrastructure sharing is a good	Participant 2 Infrastructure is inadequate. There is need for boosters especially in rural areas if there could be a scheme to support MNOs. Participant 4 Infrastructure is inadequate, and this is also caused by the road infrastructure. There is no network coverage where there is no tarred road. The number of boosters is not enough for the population size.	Participant 3 Well-funded MNOs do not share infrastructure in high-earning stations because that is their competitive position. Participant 5 Roads' degradation limits network coverage as well as the quality of network especially in rural areas. The situation is worsened by weather	Infrastructural Factors	Adequacy

	idea, but POTRAZ does not consider MNOs' investments/inputs.		conditions, especially floods render certain areas impassable.		
Proposition 3 continued	Participant 6 My views are that they have not yet reached the communities. Many places are not yet connected, they offer them but mostly many people cannot afford the recharge cards amount, and the data is just too little for the stipulated amount of money."	Participant 7 Consistent power cut is having effect on mobile telecommunications infrastructure. We have resorted to using diesel fuel to power our stations and that is bought in US\$ whilst we charge our subscribers the local currency which then brings some mismatch, and this has an impact on the way that we run the business.	Participant 8 Road transport network transport network, is purely government responsibility, affects infrastructure deployment. Sor instance, for rural people, the nearest service centre would be 80 km away. You would find impoverished people paying US\$15 to travel 200 km to replace a line those costs US\$1.00.		Road Transport Network
	Participant 9 Speaking from a supplier side of the consumer, the challenges are so many that I don't know where to start. For a start, I am sure you are aware of the power situation in the country. Where there is no road infrastructure to the suggested base stations, it becomes too expensive for the MNOs and hence, network coverage in the area becomes impossible. Priority in refuelling diesel is given to sites that generate more money whilst the rest must wait to the end of month.	Participant 10 Coverage is limited especially in the rural areas; there is a poor network coverage. There is a close relationship between network availability. We have come to understand that most of the boosters for the strength of the network are powered by local authority grid and electricity is very erratic in this country and so during the times when there is power outage, it is not uncommon to run out of power because there would be no electricity to charge your phone, so there is that relationship between cellular use and electricity.	Participant 11 The process of procuring infrastructure elements through RBZ is tedious. MNOs pay for infrastructure in US\$s but are forced to charge customers in local currency that is very unstable. Better alternative power would be solar panels when there is no commercial power.		

Proposition 3 continued	Participant 12 Power shortage. In a country like Zimbabwe, you expect that most equipment runs on the grid and the rallying power cuts and that affects connectivity. You have a situation whereby a site was designed to work, say, two hours battery or generator, it is now working on twenty-two hours battery or generator. So that means that you need truck to ferry your diesel, you need the workforce to do that, you need to monitor and that leads to a significant increase in costs as well. There is scarcity of foreign currency for infrastructural innovation.			Infrastructural factors	Other influencers
Propositions 5(a)	Participant 4 POTRAZ is a parastatal, and we think there is a lot of corruption because the one who holds the money decides how you dance. Participant 10 Service providers must pay bribes to be registered and that makes it difficult for investors. All this emanates from bad politics.	Participant 7 Although I cannot prove it but one way or other, I would agree with that. For example, vendors from some continents would do anything so that you buy from them. May be that way there would be corruption. It also depends on which vendors you are dealing with. It would be there, but it is difficult to point out	Participant 8 These, I would rather term them societal cultural influences, where you build a culture of bad service that is based on the country where there are unethical practices. It then becomes a culture of corruption. There is both Nepotism and bribery. The telecommunications industry pays a particular bribe under the table to receive preferential treatment. There is also abuse of power because some		

			telecoms giants exist, they throw their power around to get certain land to demanding ABC.		
Proposition 5(b)	Participant 3	Participant 8			
	Suspected nepotism where, for instance, when the area is predominantly Shona-speaking, and say, have a call centre manned by employees who could not speak the dominant language caused an outcry to subscribers when phoning call centres only to experience language barrier.	Nepotism is the order of the day. If you do not know anyone, you do not get employed, if you do not know anyone, you don't get promoted and no one cares about how hard you work – work ethics is not considered, but it is who you know. That would not influence the service because those would be qualified for the job.			

Source: Author

Table 3.5 Alignment of database with emerging themes

Emerging Themes	Participants	Participants	Participants	Overarching Category	Specific Analysis Themes
Emerging Theme 1(a)	Participant 1 The mobile infrastructure is influenced by electricity outage that the country is facing. Power outage by The Zimbabwe Electricity Supply Commission (ZESA) means that subscribers cannot be connected.	Participant 2 Poor network and electricity outage culminate into poor service. No electricity means no WIFI. Online teaching is affected. You find there is no network, and you reschedule for another time, and then you find that there is no electricity.	Participant 5 Power utility ZESA is failing MNOs. There are frequent service disruptions due to unavailability of electricity, which MNOs cannot do anything about, but that affects the service offered to subscribers	Infrastructure	Erratic power supply
	Participant 7 We have persistent power cuts, and we have resorted to using diesel fuel to power our stations and that is bought in foreign currency Participant 10 There is a close relationship between network availability and availability of electricity. We have come to understand that most of the boosters for the strength of the network are powered by local authority grid and electricity is very erratic in this country and so during the times when there is a power outage, it is not uncommon to run out of power because there would be no electricity to charge your phone, so there is	Participant 8 Telecommunications services can be switched off due to the delays in payment to the power supplier, ZESA. This power cut affects, for instance, hospitals, fire stations etc. Doctors are tremendously affected by the switching off power by ZESA. This happens yet payments would be made in two days later.	Participant 9 The quality of service currently is very poor. There is a problem of power in the country. We have long periods without power, and that influences the service. Diesel generators are too expensive to run, and that means power cuts are costly because they reduce the lifetime of batteries used for power conversion.		

	that relationship between cellular use and electricity.				
Emerging theme 1(b)	Participant 11 Thieves drain the diesel from the base stations and sell it on the black market, and this can only be blamed on the economic hardships influence in the society.	Participant 6 Infrastructure still leaves a lot to be desired: the still must do some more. The other challenge is that people are destroying the infrastructure, stealing and the problem we have is vandalism and theft of infrastructure components.	Participant 10 Vandalising of infrastructure. There is a black market for infrastructure components. It is all in line with the prevailing socio-economic conditions in the country. The police cannot exert their influence, and civil society has no power to report people, and the support system is also limited. We always speculate that it is probably insiders who are on the forefront of vandalism and theft and know a lot about these things and their value and trading them on the market. When there is a fault IT team tells us that there is something wrong at the base station, booster, missing cable, diesel, batteries etc that compromises on the service.	Infrastructure	Theft and vandalism

Emerging Theme 1(c)	Participant 4 Where there are no tarred roads, there is no service. Causes may be many, but I think there is lack of will in whoever is supposed to champion communications.	Participant 5 The state of road infrastructure affects mobile infrastructure. Some roads especially in rural areas are impassible and hence prohibit installation of mobile infrastructure. Roads' degradation, bad weather conditions, for example, floods render roads impassable, leading to no or limited service to subscribers.	Participant 8 Then we have the road transport network, it's purely government but then affects service provision. For instance, for rural people the nearest service centre would be 80km away. That's a franchise service centre and the actual service centre that has got everything that the subscriber would want in terms of services, would be over 200 km away. You find the impoverished people would have to pay US\$15 to go and replace a line that costs US\$1.	Infrastructure	Road Network
		Participant 8 Then we have the road transport network, it's purely government but then affects service provision. For instance, for rural people the nearest service centre would be 80km away. That's a franchise service centre and the actual service centre that has got everything that the subscriber would want in terms of services, would be over 200 km away. You find the impoverished people would have to			Road Network

		pay US\$15 to go and replace a line that costs US\$1.			
	Participant 9 Setting up network station in rural areas, it's mostly on the mountains and conditions are that base stations are placed on mountain tops. That means that you must build the road as well as the tower up the mountain top.	Participant 10 The state of the roads in the country makes it difficult for MNOs to provide good service. If there is a fault, for example, when there has been rains or storm, it will take time for technicians to attend because the roads would be impassible, the state of bridges, is a cause for concern. Technicians would only attend to the			
		fault after the road or bridge has been repaired.			
Emerging theme 2	Participant 1 Tariffs are too high. Components are expensive, and there are heavy customs duties levied on them, licence fees are too high, resulting in high charges by MNOs who would like to stay in business. The tariffs are decided by POTRAZ and do not consider the MNOs inputs	Participant 2 Tariffs are too high and that makes it expensive for MNOs to maintain communication in the country. I am not sure if it is because of the dual currency stuff about the economy, sanctions etc. It is difficult – I can only say the economy	Participant 9 Tariffs in Zimbabwean currency, I can say they are expensive, considering the salaries and what people are getting. If it is converted at bank rate, it seems expensive because the bank rate now is Z\$1300 to the US\$. Businesses in Zimbabwe peg their tariffs in what they call treasury rates but that is the black-market rate. As of today, (24 April 2023)	Tariffs	Affordability

	Participant 4 Tariffs are killing. According to us they are high, ever increasing. Besides, our currency is not very stable. When they increase their tariffs, the tariffs increase more than the salary rises, so that in the end the bulk of your salary goes to mobile communication. Each time they increase tariffs, I am always on the losing side. Participant 10 Zimbabwe is extremely expensive, most people do not phone. I normally do not use my phone to make calls. Even my work phone, which is a contract, I do not use it. Compared to South Africa, where airtime for R50 that is equivalent to 46 cents (US\$). With R50 you get data enough to last for the whole week and an equivalent of that in Zimbabwe you cannot even make a call.	Participant 6 Tariffs are just too high. The recharge cards amount, and the data is just too little for the stipulated amount of money. For US\$1.00 you may speak for only five minutes Participant 11 Mostly the ordinary person cannot afford to make calls because they are very expensive because of the per second billing. Charges are exorbitant for ordinary people because they cannot afford, especially the poor masses, and remember these are developing countries and a few people are working and now technology has taken over everything. You do everything on the phone. Internet is on your phone. So, the mobile charges then are very expensive especially now that it is the way of life and inflation has also made it impossible for people in poor countries where fewer people are at work.	US\$ is Z\$3000 and at bank rate it is Z\$1200 but converted to US\$ that amounts to less than US\$1.00. Therefore, looking at tariffs from that angle does not make sense.		
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Emerging Theme 3	Participant 1 Network is affected by several issues: The hefty licence fees paid by MNOs mean that even if MNOs aspired for a wider coverage, this is likely to be constrained by the cost of licences and heavy customs duties charged on imported equipment. Due to the expenses incurred, MNOs are unable to hire enough staff. Participant 4 Our currency is not very stable Participant 8 The reason why service is poor for example, companies in the telecommunications sector borrow money to expand network base stations and the like but the money borrowed is in US\$ and yet the receivers/recipients of	Participant 2 The country uses two currencies, the local currency and the US dollar. That itself is a problem to the subscriber and businesses prefer the US\$ and yet most ordinary people only have access to the local currency that businesses shun. The other problem is that the country is under sanctions. Participant 5 Service is affected by the prevailing economic problem in the country. Licensing and payment to vendors is in foreign currency and yet subscribers pay for the services in local currency. Local currency payments complicate payments and in the end the subscriber is affected. Participant 11 For you to be creative, you need to design a product and in designing a product you have got costs, and those costs need to be recovered through pricing. So, if you design a new product and put on the market	Participant 3 Fluctuations in the currency, sometimes end up frustrating to operators because costs go very high whilst the operators depend on authority from the Ministry to be able to authorise price reviews that should go together with the state of the economy. Participant 6 Everybody must not have a challenge of just phoning someone. Even this foreign currency, in using this foreign currency, some providers now want payments in foreign currency (US\$ only). They discourage the local currency which is the currency that everyone has. That means who those who do not have the foreign currency cannot make calls.	Economic Factors	Currency and its effect on the service
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	the service pay in local currency that is the Z\$.	and then you are told you cannot charge it beyond a certain price, then it becomes a challenge and that you cannot charge in US\$ is another challenge that is in Zimbabwe. Your services must be charged only in local currency which is unstable. MNOs procure materials in US\$ and the RBZ also takes time to pay MNOs their foreign currency.			
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Source: Author

The above propositions (**Table 3.4**) were confirmed as significantly influencing the service offered by MNOs in Zimbabwe. Additionally, there were emerging themes, (**Table 3.5**) that were not anticipated, that arose from the interviews but greatly influenced the service.

3.8.1 Data Triangulation

Conducting a case study, requires the researcher to exercise caution as this research strategy has some shortcomings. The researcher must make extra effort to mitigate the shortcomings associated with this research approach. Using an iterative process, moving back and forth between different sources of information as illustrated in Figure 3.1 below helps the researcher in mitigating these shortcomings. Triangulation aims at providing confirmability during the time the researcher writes the report (Denzin and Lincoln, 2003).

Triangulation is a process of verifying information through multiple sources to increase the validity of the description of what is observed, and this process is especially important in case study research. Data from interviews and information from archival documents are triangulated. The principle of triangulation increases the power of evidence only if the sources are independent from each other (Blumberg et al., 2011). Using two or more independent sources of data or data-collection methods within one study helps ensure that the data are telling you what you think they are telling you (Saunders et al., 2019). Bryman and Bell (2015) define triangulation as the use of more than one method or source of data in the study of a social phenomenon so that findings may be cross-checked. For example, ethnographers often check out their observations with interview questions to determine whether they might have misunderstood what they had seen (Bryman and Bell 2015). This increases the validity and reliability of the research results. In this research, data obtained from the interviews and from archival documents are triangulated. **Figure 3.1** shows the iterative process (back and forth) of triangulation. If themes are established based on converging several sources of data or perspectives from participants, then the process can be claimed as adding to the validity of the study (Creswell and Creswell 2018).

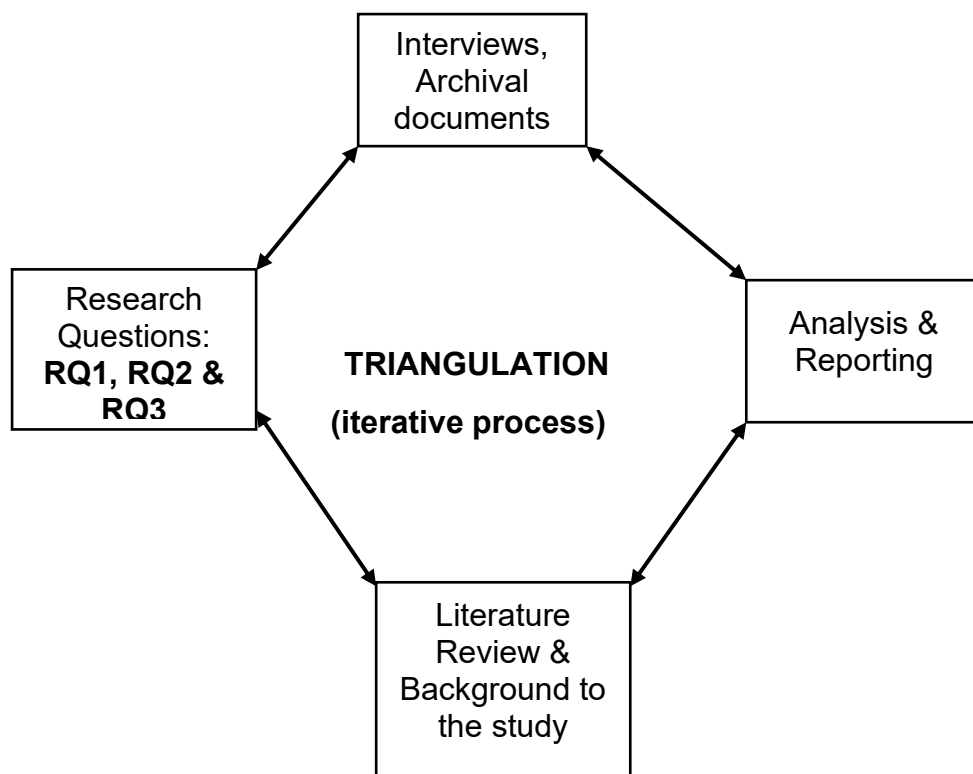


Figure 3.1: The process of triangulation

Source: Adapted from Stake (2010)

3.8.2 Validity and Reliability of Qualitative Research

The most important criterion of research is its validity that is concerned with the integrity of the conclusions that are generated from a piece of research (Bryman and Bell 2015). The authors believe that reliability is the degree to which a measure of a concept is stable, that is, whether the results of a study are repeatable. It refers to replication and consistency (Saunders et al., 2019). Saunders et al., (2019) state that research is reliable if a researcher can replicate an earlier research design and achieve the same findings. Reliability is a characteristic of measurement concerned with accuracy, precision, and consistency; a necessary but not sufficient condition for validity, that states that if the measure is not reliable, it cannot be valid, but that reliable measures are not necessarily valid (Blumberg et al., 2011). Validity refers to the appropriateness of the measures used, accuracy of the analysis of the results and generalisability of the findings (Saunders et al., 2019). Guba and Lincoln (1994) believe that qualitative research studies should not be judged using the same tools as quantitative research. Thomas and Magilvy (2011) state that interpretivism

researchers have credibility, transferability, dependability and conformability as the criteria by which the quality of research is evaluated. Blumberg et al., (2011) see validity as a characteristic of measurement concerned with what the researcher wishes to measure and that the differences found with a measurement tool reflect true differences among respondents drawn from a population. There are different kinds of validity, external reliability, internal reliability and external validity and internal validity.

External reliability: Bryman and Bell (2015) refer to external reliability as the degree to which a study can be replicated. This is a difficult criterion to meet in qualitative research and that can be introduced to approach the requirements of external reliability. For example, a qualitative researcher replicating ethnographic research needs to adopt a similar social role to that adopted by the original researcher.

Internal reliability: Internal reliability is the ability of a research instrument to measure what it is purported to measure (Blumberg et al., 2011). Reliability is when there is more than one observer, and members of the research team agree on what they see and hear (Bryman and Bell 2015). In a qualitative study reliability is when research focuses on the results of the study to be consistent with the data collected, and external validity examines the extent to which the findings can be applied to other situations (Rahmani and Leifels).

External Validity: External validity is when an observed causal relationship can be generalised across person, settings and time (Blumberg et al., 2011). External validity refers to the degree to which findings can be generalised across social settings (Bryman and Bell (2015) refer to external reliability as the degree to which a study can be replicated. This is a difficult criterion to meet in qualitative research and that can be introduced to approach the requirements of external reliability. For example, a qualitative researcher replicating ethnographic research needs to adopt a similar social role to that adopted by the original researcher.

Internal Validity: This study is qualitative, and unlike the quantitative research where internal validity refers to the extent to which findings describe reality, in qualitative research the credibility of the research depends on the richness of the information collected and the analytical abilities of the researcher (Tracy 2010). Internal validity is the ability of the research instrument to measure what it is purported to measure (Blumberg et al., 2011). Internal validity is concerned with the reality, and how research findings are congruous with the reality

(Rahmani and Leifels 2018). Internal validity refers to the extent to which findings can be attributed to interventions rather than any flaws in the research design (Saunders et al., 2019).

3.9 Ethical Considerations

Ethical standards must be met before any fieldwork is conducted. This thesis comprises of the original primary research by the researcher and secondary data obtained from other sources. The first thing to do was to obtain ethical approval from the General University Ethics Panel (GUEP) of the university of Stirling. This approval meant that the researcher had satisfied the requirements and conditions before the commencement of fieldwork. Ethics approval served as an assurance of participants protection if at all there was to be any publication of the article or part of the thesis. This assurance was reinforced at the start, during and after the interview.

Participants were contacted via LinkedIn and thereafter, communication with participants was by WhatsApp or email. The participants who agreed to take part in the study were sent an information sheet and consent form to fill in and return, see (Appendix D). That information sheet provided the participants with all the information they needed to know before deciding to take part in the study.

In addition to the information contained in the Information Sheet, participants were verbally told that participation was voluntary and that they were free to withdraw from the study at any time. Participants were allocated numbers, and their names do not appear anywhere in the study. This was done to ensure that confidentiality was maintained.

Interviews were recorded using the University of Stirling laptop audio device. That way, interviews were secure as they were saved in the researcher's university cloud storage. That was to ensure that no one else apart from researcher could access the information. Interview recordings were transcribed and the transcription stored in the same manner as the recordings in the researcher's university cloud.

Although the participants had read the information sheet, the researcher reassured the participants that the documents would be stored in electronic form on password protected, encrypted drives in the University of Stirling's IT System and that hard copies would be kept in secure storage. Data will be archived on the University of Stirling DataSTORRE for a minimum of 10 years.

3.10 Chapter 3 Summary

Chapter 3 covered the research philosophy and research strategy for this study and the justification for the adopted methods. The research philosophy for this research is interpretivism since what is happening in the Zimbabwe Mobile sector is best understood from MNOs informants, civil society, and all those that interact with MNOs daily and have full knowledge and understanding of the MNOs' operations. The nature of this research led to the adoption of case study and the methods of collecting data, qualitative data collection and analysis. Archival documents were consulted and interviews held with the relevant stakeholders, that is, MNOs informants and civic society who have knowledge of the mobile telecommunications industry in Zimbabwe. This data was triangulated (**Figure 3.1**) to understand the Zimbabwe mobile telecommunications sector from various sources.

The next chapter presents the findings of this thesis. These findings are structured according to the literature that is presented in chapter 3, which also led to the drafting of the proposed conceptual framework. Propositions were made, and these helped form the structure of the findings.

Chapter 4 Findings

4.1 Introduction

This chapter presents the findings from the data analysis outlined in Tables 3.4 for propositions and 3.5 for emerging findings influencing the service offered by MNOs in Zimbabwe. The **categories** and **themes** observed in the data are summarised in table 4.1 below:

Table 4 – 1 Summary of findings

Research Propositions	Overarching Category	Specific Themes	Analysis
Research Proposition 1	Political Factors	Influence of government	
Research Proposition 2	Regulatory Agencies	Enforcement of Regulations	
Research Proposition 3	Infrastructure	Adequacy	
Research Proposition 4	Ethnicity and Tribe	Not applicable	
Research Proposition 5(a)	Corruption	Bribery	
Research Proposition 5(b)	Corruption	Nepotism	
Emerging Themes	Overarching Category	Specific Themes	Analysis
Emerging Theme 1	Infrastructure	Erratic Power Supply	
Emerging Theme 1 (b)	Infrastructure	Theft and Vandalism	
Emerging Theme 2	Tariffs	Affordability	
Emerging Theme 3	Economic Factors	Currency effect on service	

Source: Author

The first group of factors are presented according to the propositions illustrated in Chapter 3 and in the conceptual framework. For each of the propositions, three questions are considered: affirmation or rejection of the propositions; what influence the factors have on the service; and finally, mitigation of these problems. Another group of factors influencing the service emerged from the interviews. These are presented in 4.3 of this chapter as emerging factors that were not anticipated but that greatly influence the service offered by MNOs in Zimbabwe.

4.2 Proposition Findings

After considering what was learnt from the literature review, five propositions were made about the factors that were likely to influence the service provided by MNOs to subscribers:

4.2.1 Proposition 1: Political Factors influence the services of MNOs in Zimbabwe

Proposition 1 proposed that political institutions/factors influenced the services offered by MNOs to subscribers. Political factors include actions of the government, representatives of government, the president, members of parliament, ministers and members of the ruling party. This section highlights what the interviewees said about political factors in relation to mobile telecommunications services in Zimbabwe.

Political factors have been found to greatly influence the services offered by MNOs in Zimbabwe. Whilst the country might appear to have political stability, when it comes to the mobile telecommunications sector, politics in the country dominates what is happening or should happen in the telecommunications industry. From the outside it would appear like it is business as usual. However, this study unveils the role played by politics in influencing the services offered by MNOs to the consumer. Government involvement and interference in the sector mean that MNOs cannot offer the service they would like but instead must do as dictated by politics. Government involvement defeats what was signed at the Uruguay Round in 1997 when governments, including Zimbabwe agreed to liberalise telecommunications and reduce government involvement in the sector. From the accounts given by interviewees, the opposite is the case in Zimbabwe. MNOs compete with the government that at the same time sets and decides how the sector should operate, whilst at the same time, operating as one

of the MNOs. MNOs are supposed to be profit oriented organisations but in Zimbabwe they cannot conduct their business according to the dictates of the business climate, and in the way they would have planned. The government interferes in all aspects of the MNOs' business. As a result, the service offered to the consumer is affected.

Participants highlighted government involvement and interference in the telecommunications sector as influencing the operations of MNOs by dictating the kind of services MNOs provide to consumers. The relationship between government and private MNOs appears to be strained. Participant 11 (**vendor**) stated:

“The government of Zimbabwe is very strict when it comes to private MNOs, and hence you find that MNOs are not very much concerned about development. They are after taking money and they do not see themselves as being in good relationships with the government, more so because of the Posts and Telecommunications Regulatory Agency of Zimbabwe (POTRAZ). When it comes to POTRAZ the companies want to charge a certain fee for a particular service, POTRAZ will say NO, you cannot do that. And yet this may be what was going to be beneficial to society as well”.

According to the above statement, MNOs just do what they can to get their money back. They do not think about developing the sector because of the prevailing relationship with the government. This relationship deprives the consumer of many services that the MNOs could have provided had there been a good relationship between the government and MNOs. The government is biased against private MNOs. The government, through POTRAZ creates an atmosphere that is not conducive to business and hence the country has not attracted new players into the sector. The government is strict with private MNOs and is discriminatory. It is not seen as fair for the government to compete and at the same time set rules for the operations of MNOs. MNOs may have started off with good intentions but because of government interference, plans to develop the sector could be refused by government and not implemented. This deprives consumers of something that could have helped alleviate the problems subscribers are facing.

Participant 1 (**MNO**) highlights rules and regulations, which, of course, are enforced by POTRAZ, a government arm that oversees the activities of MNOs in the country, adding:

“Whatever problems associated with the service provision of MNOs emanate from government rules and regulations. Political factors are playing a big role in the mobile telecommunications of Zimbabwe. Political factors influence all aspects of the service of MNOs since government runs the regulatory agency that oversees MNOs and at the same time government is one of the MNOs in the country.

The above comment suggests that politics plays a major role in the mobile telecommunications sector of Zimbabwe, and that includes government policies, rules and regulations pertaining to MNOs. For example, MNOs can come up with, marketing strategies but implementing them would depend on how the government views them. Since the government is a competitor, whatever strategy puts the private MNOs above the government MNO would be squashed by its agency, POTRAZ which has the power to refuse the implementation of such strategy. Failure to abide by POTRAZ rules, allows the government, through the respective ministry to punish the MNO for violating the rules. This results in consumers not getting the mobile service they deserve because of the political administration. The situation would be different if POTRAZ was independent and if the government was not part of the race. The researcher’s experience in the difficulty of recruiting participants is likely to be caused by the political atmosphere. The public in general is scared, fearful that whatever they say could be taken to government and they would be in trouble. How then does the world get information for the betterment of people, if people being seen to be attending to a research activity? That shows the extent of political influence in the country.

This situation explains why there has only been three players in the mobile telecommunications industry in Zimbabwe for more than two decades. The Zimbabwe mobile telecommunications sector comprises of Econet (private), NetOne (government), and Telecel (whose shareholders are government affiliates). That leaves one, Econet as the only purely private entity in the country. These three MNOs are all indigenous companies. Telecel was originally an Egyptian company but fell

outside the government's shareholding policy that foreign companies should cede 51% shareholding to locals. This makes it hard for international telecommunications companies to invest in the country. With international telecommunications participation there could be more benefits to consumers through lower tariffs because of more competition. International MNOs would bring in the technology in which Zimbabwe is lagging other countries. The government's interference deprives the Zimbabwean consumer of a wider choice of MNOs from which they could choose the best provider, in terms of prices and quality of service. Such choice is currently lacking. The grip of the sector by government could be scaring away investors as highlighted by participant 10 (**Civic society, health**):

“The political atmosphere in the country chases away investors, and that includes bribery and some regulations that the investor must adhere to, for example, a certain percentage of shareholding should be held by Zimbabweans. Zimbabwe has not had a good political landscape and for many years, it has distinguished itself as a country where business is difficult, and that way makes investors shy away from the country”.

The above suggests that the requirements for setting up a telecommunications company in the country are not inviting to the would-be investor. That impacts on subscribers who must put up with the three MNOs regardless of the quality of service and prices that come with it. Competition is among three players and consumers do not have any choice but to subscribe to the three MNOs, and as such, service quality is compromised. The MNOs will always work to their advantage even if that is uncomfortable to the consumer. The consumer will have no option but to stay with the available MNOs. In support of participant 10, participant 11 (vendor) added:

“Zimbabwe is very uncompetitive. There is not much competition. It is mostly Econet that tries to offer good service. The state-owned is a quasi-government entity, they try to support it, but they are failing to run it properly because government structure negates good service. Government should let the market free so that new players can come in. More competition would mean there is more innovation, there is more creativity, and the price of calls and data would

go down because people are vying for the same market, so they tend to reduce their prices so that they become attractive to consumers”.

The above comment alludes to the fact competition in Zimbabwe's mobile telecommunications is very limited, with one, Econet, giving a better service than the other two. The government owned MNO, NetOne, gets the best funding because it is funded by government. However, despite all the support that it gets from the state, it seems, the MNO does not deliver the service to expectations because governments are not profit-oriented. The interviewee calls for the government to open the sector up to new players. In Zimbabwe, this is easier said than done. The government's policy on mobile telecommunication should be reformed so that the country is inviting to international MNOs. Foreign MNOs could even bring with them new technologies that are not currently available in Zimbabwe. Participant 3 (**MNO**) believes that the sector is the way it is because the government owns the regulatory agency, and is also an active player, adding:

“Government involvement and ownership of the regulatory agency, POTRAZ means that MNOs fall under the control of the Ministry of Information, Posts and Telecommunications. Like any other government department, there is a lot of bureaucracy. The government authorises price/tariff reviews and services come at a huge cost to MNOs. If POTRAZ delays tariff approvals, that affects the service level because when you are running at a loss and your costs are forever increasing, how then can you keep up with the technological world?”

Most participants believe that the MNOs' earnings are low, and the question asked is: 'How then, can MNOs offer adequate services to the consumer without enough income?' The consumer would experience a poor or irregular service without knowing the reasons for this and blaming it on the provider. MNOs are expected to deliver a good service to their customers, but if their revenues are down, it becomes a challenge. Participant 9 (**Vendor**) expressed concerns about delays in approving tariffs by the regulator, POTRAZ, that that affects the MNOs revenues, stating:

“The regulator is reluctant to approve tariff increases because of pressure from higher authority (ministry). Government wants to protect consumers but with

operators not being able to keep up with expenses. You know, with our continent, authorities want to have things appear to be right when the opposite is the case”.

That means the government delays tariff increases to protect consumers, because if consumers are not satisfied with what the government is doing, that becomes a political threat. The government is guarding against losing votes from unhappy citizens during elections. This is a political issue. On the other hand, MNOs will be unable to provide quality services to consumers because the delay to increase tariffs by the government affects the operations of MNOs who would offer services with a minimum budget. Part of the poor service experienced by consumers is caused by politics, and MNOs cannot do anything about it. This would not have been the case had POTRAZ been independent of government. Participant 3 (**MNO**) asserted:

“The regulatory agency is not independent but government-owned and that influences the services offered by MNOs because government dictates what MNOs should or should not do. The other problem is government ownership of MNO (NetOne) which means government owns and regulates itself, how can that be?”

This comment confirms the influence of politics in Zimbabwe’s mobile telecommunications sector and how that has impacted the service offered by MNOs in the country. Politics is in the centre of the telecommunications sector in Zimbabwe because the government is both player and regulator. The government involvement interferes with MNOs’ business strategies and as a result, consumers may not be given the service that MNOs aspire to provide.

The fact that the government is in control of the sector, during civil unrest, the government has the power to paralyse the operations of MNOs by restricting communication amongst people nationally. Similarly, a government officer, or minister may do the same on a smaller scale restricting communication amongst people in an area that he/she is visiting. That means consumers in the area would be without communication for the duration of the government official’s stay in the area. This is

testimony to political influence in the MNOs' service. This was echoed by Participant 8 (**MNO**) who asserts that:

"Services are interrupted whenever there is a political figure in the area, for example, a government minister visiting or on duty in the area. There will be no network for the duration of the politician's stay in that area".

Interruptions to the service not only affect individual consumers, but also businesses. Families who have members in different parts of the world would not be able to reach out to their family members for the duration. That affects both business and families, without any redress because it is the politics of the land that grossly affects the service provision. Almost 80% of participants alluded to the fact that politics influences the service provided by MNOs. This is confirmation of proposition 1: that political factors influence the service offered by MNOs in Zimbabwe. The situation is exacerbated by the ownership by the government of POTRAZ, making the regulatory agency part of government.

4.2.2 Proposition 2: Regulatory agency influences the service of MNOs in Zimbabwe

The regulatory agency, POTRAZ, has been found to influence the service offered by MNOs in Zimbabwe. Interviewees reported that the agency issued regulations to be observed by MNOs but there appears to be no uniformity in the enforcement of these regulations. Interviewees indicated that in terms of enforcement of rules and regulations, the government owned MNO is favoured, compared to the other two MNOs. There is heavy monitoring of private MNOs whilst the government owned operator works the way it pleases without any repercussions. All this emanates from the fact that the regulatory agency is government owned. The disparities in regulations were highlighted by Participant 1 (**MNO**) who asserted:

"POTRAZ is owned by government. Policies, rules, and regulations are set by government. Government is both a player and referee. There is regulatory disparity, different rules and regulations. There are regulations that apply to

private MNOs that do not apply to the government-owned MNO. The state-owned MNO is not monitored, whilst private MNOs are heavily monitored”.

There are rules and regulations that apply to private MNOs that do not apply to the government MNO. POTRAZ goes by the book to monitor private MNOs but acts differently toward the government MNO. Obviously, the government will always favour their own. That means subscribers of the privately owned MNOs will experience poorer or more expensive services since private MNO and government MNO are rivals. No matter how much private MNOs might try to give the best service to their subscribers, they will always meet with government rivalry. This affects consumers of private MNOs who would then cross over to the government-owned MNO, where, like any other government department, service quality would be lower than that offered by the private MNO. That adds to the burden borne by consumers who are forced to subscribe to all three MNOs because of the service disparities. That makes it difficult for researchers to come up with the correct number of people using mobile phones. The number is inflated because consumers would subscribe to all three because of disparities in the services offered by MNOs.

The idea of telecommunications liberalisation initiated by the WTO was to have independent agencies overseeing the operations of MNOs equally, without any bias. The Zimbabwe situation is still in the pre-liberalisation era where most governments had a full hold of the sector. The government bureaucracy and bottlenecks still influence the operations of MNOs in Zimbabwe. That makes it difficult for private MNOs to offer the service that they aspire to offer to consumers. It appears none of what was agreed during the Uruguay Round has been implemented in Zimbabwe. In fact, it is quite the opposite. Participant 8 (**MNO**) highlighted disparities in regulations:

“We have regulations that affect certain bodies but not affect others. MNOs that are parastatal are not as highly regulated as private entities and so you will find that the service offered by the private entities will not be easy in terms of Know-Your-Customer (KYC). Your KYC will be quite excruciating. For example, the process of just getting a line (SIM card), you need the person to be present physically, their ID and money for the line. Whereas, for the

government MNO subscribers, just an ID and money would suffice, no need for them to be physically present”.

The above sentiments are shared by all participants who allude to the government’s involvement in the telecommunications sector. That has a tremendous impact on the subscribers of private MNOs who must provide more information than the government-owned MNO for them to get a SIM card. In rural areas, subscribers must travel long distances to get this done, thus costing them money and time. This whole scenario has denied Zimbabwe subscribers access to technology that other countries enjoy. The process of obtaining a SIM card discourages private subscribers from continuing with the privately-owned MNO. They instead join the government-owned whose requirements are fewer. In that case, the government holds the key to the success of privately-owned MNOs.

Despite all the negative treatment it receives from the regulator, Econet still excels in the market regardless of government hostility toward private MNOs. This is because of Econet’s private structure, as opposed to the government structure that is full of bureaucracy, bottlenecks, poor administration and not being profit oriented.

The mobile sector in the country is currently facing difficulties. There are electricity problems and economic problems such that MNOs are grossly affected in their provision of services. This has led to the regulator forgoing some Key Performance Indicators (KPI) because of these difficulties. This was highlighted by participant 7 (**MNO**) who stated:

“So now the regulator has Key Performance Indicators (KPI) that the regulator monitors on all MNOs and this (KPI) we call network availability which measures the number of hours the base station is up at providing service in a day and has the target of 99.9% which we are supposed to meet. Of late the regulator has had to forgo that because of the current challenges so that operators can also survive in their business otherwise you would see that all those would be penalties, and nobody can run away from penalties”.

The regulator has had to ease the monitoring of KPI. The service quality provision is also likely to be further impacted by the non-monitoring of MNOs. Consumers will experience a poorer or inadequate service but will be unaware of what is happening as the reason would only be known to the MNOs and not relayed to subscribers. This, however, does not stop consumers from blaming the MNO for poor service.

The economic situation and inflationary pressures have led to the regulator asking MNOs to stagger tariff increases, and yet MNOs need this income to offer a balanced service. The approval of tariffs is delayed, so the MNOs operate at a loss as costs rise. This staggering of tariff increments worsens the situation. It makes it difficult for MNOs to offer a good service when they are running at a loss. Participant 9 (**MNO**) added:

“POTRAZ advises MNOs to stagger tariff increases but then by the time they get to the next adjustment, inflation would have shot up. This grossly affects the service offering since MNOs cannot offer good quality service with a small income”.

This is the reason why the Uruguay Round stressed the need for governments to reduce their involvement in the telecommunications sector. It looks like Zimbabwe does not adhere to any of the conditions agreed upon. Regulatory problems remain the same because the government is still highly involved. Participant 11 (**MNO**) called for the independence of POTRAZ, from the government and suggested:

“Privatising the sector is the way to go, and independence of POTRAZ regulatory agency is required. There should not be too much government involvement in the agency’s business, so POTRAZ should stand by itself”.

Typical of many government departments in Zimbabwe, the regulatory agency takes too long to approve tariff increases. Whilst the government is trying to protect Consumers from high tariffs, that puts a strain on MNOs who must survive. Consumers will still be affected regardless of government thinking that withholding tariff increases will help consumers. The consumers are affected because the MNOs will charge a

premium price for them to remain viable whilst awaiting the approval of tariffs. This is echoed by Participant 12 (**MNO**) who states:

“The Regulatory agency, POTRAZ approves pricing but takes time to do that. What then happens is that, when you are not sure whether your next pricing is going to be approved, you build in a premium in that pricing and that is an unnecessary extra expense to the consumer just because POTRAZ has taken too long to approve”.

The premium built into the pricing model by MNOs would not exist if the agency approved tariff increases on time. The burden is born by consumers who must pay a high price, which in some cases, might not be more than what it could have been had POTRAZ not delayed tariff approvals. The MNOs add a premium to guard against running at a loss because they do not know when and what the approved charge would be. That places the burden on the consumer who is already charged high tariffs and limits consumers use of mobile communication. MNOs just want to remain in business regardless of the delays by POTRAZ to approve tariffs.

As discussed earlier, there is disparity in the way the government treats MNOs. Disparities are not only in the way the government treats private MNOs but there are also disparities in the tariffs authorised by POTRAZ. This was confirmed by Participant 12 (**MNO**) who added:

“There are also price differences amongst MNOs. You get a provider giving airtime of US\$15 for 10 gigabits, the other US\$10 for 10 gigabits, and another US\$5 for 15 gigabits. These MNOs go through the same governing body, POTRAZ, to get pricing approvals. The logic behind it is not consumer-centric whichever way you want to look at it”.

This is tantamount to corruption. This was highlighted earlier by Participant 4 (**civic society, education**) who stated that POTRAZ is owned by government and thinks that there is a lot of corruption. The above comment further confirms that there are problems in the regulatory process that influence the services offered by MNOs in Zimbabwe. In support of participant 4, who states that there is probably corruption at POTRAZ. The three price levels mean that the most favoured MNO, NetOne (govt),

will have more gigabits for less, followed by Telecel (government associates) and Econet the least favoured. Consumers will be forced to subscribe to all the three providers to maintain communication. Mobile communication then becomes very expensive, if not prohibitively expensive, for the ordinary consumer.

Regulatory factors, according to the above discussion have been found to significantly influence the service offered by MNOs in Zimbabwe. If there are no reforms in the regulatory agency, it is likely that consumers in the country will remain in this situation, if not worse for decades to come. The presence of corruption in the telecommunications sector is confirmed by Fink et al., (2009) who notes that autonomous regulators have been created but these are rarely independent.

4.2.3 Proposition 3: Infrastructural Factors Influence the Services of MNOs in Zimbabwe

Infrastructural factors have been found to be influencing the service provided by MNOs in Zimbabwe. Firstly, it is very expensive for MNOs to install infrastructure. Installation as well as the acquisition and maintenance of infrastructure is the highest expense incurred by MNOs. This was highlighted by Participant 1, (**MNO**) who stated:

“Infrastructural components like boosters are very expensive. Apart from being expensive to purchase, customs duties levied on them and the operating licences for MNOs are very heavy. Obviously for the company to be viable, consideration of these heavy customs and high licence fees should be accounted for when working out the tariffs charged by the company. The government, through POTRAZ decides on tariffs without considering the input of the MNO. Government has advocated for this infrastructure sharing, which is a good idea, but POTRAZ does not consider the MNOs investments/inputs when reviewing tariffs”.

The cost of inputs dictates the tariffs that MNOs charge. MNOs must get back the money spent on infrastructure through tariffs. They cannot charge less than what they spend because they must earn profits, otherwise, there would be no reason for them to be in business. At the same time, it is difficult for MNOs to invest in the infrastructure

to cover the populations that they wish to serve if it is very expensive. This was also highlighted by participant 2 (civic society, academic):

“Infrastructure is inadequate. There is a need for boosters especially in rural areas. If only there could be a scheme to support MNOs.”

The above suggests that there should be a scheme to support the MNOs. From the look of it, infrastructure sharing could alleviate these problems if it were executed properly. Even though infrastructure sharing was enacted, it does not seem to be working. It appears that well-funded MNOs are reluctant to share infrastructure in high earning sites. This was highlighted by participant 3 (**MNO**) who stated that the two well-funded MNOs were reluctant to share infrastructure with the struggling MNO. If government stepped in to provide infrastructure, this would not be happening. This is especially so because government has done nothing about infrastructure, and hence there is no incentive for the MNOs to share infrastructure as the government does not recognise the infrastructural input of the incumbent MNO.

Most interviewees expressed concerns about the inadequacy of infrastructure. Participant 13 (**civic society marketing**) supported the comments made by participant 2 and adding:

“In some places, network coverage is limited. For instance, if I must travel to the rural areas, it is either I must change the handset, take with me those old handsets with long arial or must go up the mountain to try and access network”.

According to this comment, the network is likely to be available, but the handset that one uses will determine whether the consumer will be able to communicate or not. This is an indication that the country's mobile technology is lagging other countries that no longer use old handsets. This adds an extra strain for the consumer who must go up the mountain to access the network. Accessibility issues for the mobility impaired and elderly arise.

Infrastructure has proved to be a problem as it affects the coverage achieved by MNOs. POTRAZ pushed to have a statutory instrument enacted by the government and this became effective in 2016, where operators are forced to share infrastructure.

“To alleviate the problem of the cost of infrastructure government came up with a statutory instrument, 137 of 2016 which became effective where they are now forcing operators to share infrastructure and has resulted in us truly cutting down on the Capex when installing new base stations and has helped operators extend coverage where other operators are already there at no capex cost”.

Participant 11 **(MNO)**

In theory, mandatory infrastructure sharing is a good idea, as it is meant to reduce costs for all MNOs as opposed to going through installation individually. The benefit of infrastructure sharing, when used properly, apart from reducing installation costs, would be passed on to the consumer in the form of reduced tariffs. That is why most interviewees suggested that the government funds the base infrastructure so that MNOs just bring in their masts. That would mean that MNOs would spend less money on initial costs and hence expand coverage in the country. The problem is that, for NetOne and Econet, their infrastructure is their competitive edge and sharing with Telecel does not go down well with these two MNOs. Participant 3 **(MNO)** has observed that:

“Well-funded MNOs (NetOne and Econet) do not share infrastructure in high-earning stations because that is their competitive position. They only share infrastructure in low-earning stations”.

Well-funded MNOs were, however, happy to share infrastructure in low-earning stations. The refusal to share infrastructure is because MNOs would have spent large sums of money on expensive infrastructure components in these areas. The government does not recognise this when revising tariffs. MNOs would be reluctant share since there are no rebates for installation expenses.

The other problem associated with infrastructure sharing is that if the incumbent MNO does not attend to faults, subscribers of other MNOs get affected, and that is one of

the disadvantages of infrastructure sharing. This was highlighted by participant 5 (**MNO**) who stated:

“The problem arises when the MNO responsible for the base station fails to attend to technical faults leading to poor service and thus affecting subscribers of other sharing networks”.

Infrastructure sharing is a good idea, but if MNOs do not have equal capacity to service the base stations, other sharing MNOs could be disadvantaged because of the failure of the incumbent MNO to adequately maintain the station. Poor maintenance affects subscribers of other sharing MNOs if faults are not speedily addressed. That could be the reason why other MNOs are reluctant to share infrastructure in higher-earning areas.

4.2.4 Proposition 4: Ethnicity and Tribe Influence the service of MNOs in Zimbabwe

Despite the assumption made in establishing the framework for this study, participants have indicated that ethnicity and tribe do not affect the services offered by MNOs in Zimbabwe. Participant 3 (**MNO**) stated:

“Ethnicity and tribe do not influence the service offered by MNOs in Zimbabwe, but what influences the service along similar lines is the hiring and posting of people to regions where they cannot communicate in the predominant language of the area. That would affect the service because of the breakdown in communication between the subscriber and the service provider. However, it appears that this is being addressed by the MNOs by having trilingual employees at call centres”.

This participant cites language as an influence in the provision of services where there would be miscommunication between the consumer and the provider.

Participant 4 (**civic society, education**) supported the issue of ethnicity and tribe not influencing the service adding:

“Zimbabwe has three ethnic groups that live side by side and there is no way that mobile services can be offered along ethnic and tribal lines”.

People can live anywhere in the country, and not according to tribe or ethnic group as used to happen before the country's independence in 1980 when people lived according to their ethnicity. Ethnicity and tribe have also been found to be irrelevant to Zimbabwe's mobile telecommunications industry as expressed by participant 10 (**civic society, health**) who further explained:

“None of that I can think of. There is regionalism where the predominant Shona areas but not tribal per se, having, say 15 secondary schools for a certain population and the same population that is predominantly Ndebele, has five schools. That is a product of long-standing problems of segregation, that is, regionalism”.

The above comments indicate that tribal influences exist in the provision of services, and that would include the mobile services. However, the interviewee used the phrase, 'regionalism', which in the end translates to tribalism because there are two regions in the country, Mashonaland (occupied by the Shona tribe, and Matebeland, occupied by the Ndebele tribe). The country is also trilingual with English, Ndebele/Zulu, and Shona spoken. These groupings live side by side and can speak each other's languages. There could be differences naturally, but these should not influence the service provided by MNOs. As a result, proposition 4 cannot be confirmed/supported. However, this factor might influence the service for instance, if there were community centres for people to access mobile communications.

These community centres would be situated in existing serviced structures in which case regionalism would influence the number of community centres in a deprived area as indicated by participant 10. In that case, that means there will be fewer facilities for the local population. In a way, even if the interviewee disputed the existence of tribal/ethnic differences, these do exist. Apart from the disparities in the deployment of services, in the end these are seen as tribal/ethnic differences which, the researcher, a native of Zimbabwe believes, influence the service provision.

Similar sentiments about the distribution of base stations were expressed by participant 8 (**MNO**) who cited the way base stations are distributed in rural areas compared to urban areas. The participant stated:

*“A rural area of a population of **160,000+** will have nine base stations in it and a town that has a population of **40,000** will have 22 base stations”.*

The above comment shows the unequal distribution of base stations. It appears, there is some discrimination against the rural population as it seems that this population is not considered seriously by MNOs. Most interviewees expressed the need for improved coverage in rural areas and that there is no explanation for such a difference in coverage.

Whilst the ethnicity and tribe proposition is not supported, it appears there is some disparity in the distribution of base stations. This could be because of regionalism but the participant did not elaborate. It appears it is the same concept as regionalism because regions are divided by tribe. Similarly, participant 11 (MNO) thinks there is an issue of tribalism emanating from government atrocities in Matebeleland in the early 1980s. People in Matebeleland would rather go for Econet than the government owned MNO. Participants seemed to be avoiding the relevant questions, despite assurances that their responses would be confidential.

4.2.5 Corruption

Proposition 5 consists of proposition 5a and 5b. Proposition 5a proposed that corruption in the form of nepotism influences the service offered by MNOs in Zimbabwe. Proposition 5b proposed that corruption in the form of bribery influences the service offered by MNOs in Zimbabwe.

4.2.5.1 Corruption in the form of Nepotism

Participants were not directly asked these questions. A scenario was used to ask the question, quoting some countries where nepotism has been rampant, followed by what the participants had heard of or experienced with the MNO they were engaged with.

Nepotism is found in most organisations when it comes to hiring. Some organisations would hire people recommended by friends or their cronies. Participant 1 (**MNO**) asserted:

“Out of the three MNOs and judging from the type of employees, I think the market leading MNO (Econet) attracts suitable staff for the job – professionalism is at play here. Nepotism could be there, but that would not influence the service because those hired would be highly qualified for the job. The problem could be that they would not have followed the full hiring process because they were recommended”.

Similar sentiments were echoed by participant 4 (**civic society, education**) who stated:

“Nepotism would be there, but it is difficult to point out”.

This comment indicates that indeed there is nepotism in the mobile telecommunications sector, but the interviewee did not want to commit to giving more details. The above comment is likely to come from an individual who had witnessed nepotism but is not willing to discuss it. Participant 3 (**MNO**) agrees that nepotism is found in all industries including telecommunications.

“Nepotism is found not only in telecommunications but in other industries as well. The deployment of staff who could not speak the predominant language of the area in call centres could be the result of nepotism”.

This is likely to influence the service since the caller and the call centre staff do not understand each other resulting in the wrong interpretation of the service required or resulting in the breakdown of communication without solving the problem.

Most participants speculated that nepotism and bribery could be there but, it appears, they did not want to commit themselves to answering the question. However, its presence would, of course, influence the service offered by MNOs because it is likely that you would find unqualified people hired for the job, people who are unable to deliver a good service. Apart from people hired through nepotism being unable to perform well in their positions they would believe that their connection would always

defend them should there be complaints levelled at them. The consumer would then continue receiving poor service from such employees as there would be no incentive to improve.

4.2.5.2 (b) Bribery Influences the service of MNOs in Zimbabwe

This proposition has been confirmed, but not explicitly. Like the questions around nepotism, most participants did not want to explain further other than just mentioning the presence of bribery. Participant 4 (**civic society, education**) stated:

“POTRAZ (regulatory agency) is owned by the government, and we think there is a lot of corruption because the one who holds the money decides how you dance. Wherever there is money, everyone wants a cut here and there, and that becomes a burden. There is a problem for people who want to participate especially if 50% of your capital must grease the wheels of commerce”.

The above comment suggests that there could be both bribery and nepotism even though the participant did not want to provide examples. Anyone or any company that intends to participate in the industry, must either pay a bribe or be known by someone with influence in the sector. If there is resistance on the part of the prospective participant, consumers will be deprived of a service. At the same time, if the intending participant does pay a bribe, that does not guarantee good quality service to the consumer. Similar sentiments were expressed by participant 10 (**civic society, health**) who stated:

“Service providers must pay bribes to be registered and that makes it difficult for investors. All this emanates from bad politics”.

The above comments mean that consumers are denied access to new market entrants who could provide better services at reasonable prices. This explains why the country has for a long time had only three players in the mobile market. The issue of bribery is not new in the mobile telecommunications of Zimbabwe. The founder of Econet won a three-year court battle against the government because the government had prevented him from setting up a mobile company despite meeting all the requirements. He had been approached but had refused, stating categorically, that he did not

participate in bribes. Had he paid the bribe, he would not have fought the three-year battle with government but would have simply established the mobile company without any problems.

“You know, I’m a born-again Christian,that was a decision I took and every day I must persuade myself that I am practising my convictions. As a businessman in that environment, was nothing more obvious than to succeed, to do anything, it was all about patronage and corruption”. (Source)IESE Publishing Ave. Pearson 21. <http://www.iese.com>

The above words suggest that there could be others who had wanted to register their mobile companies but had to give up because of the requirement to pay bribes. Most interviewees are aware of bribery, but they were not willing to elaborate on it. Participant 8 (**MNO**) stated:

“There is both bribery and nepotism in telecommunications. But this does not affect the service because the people hired are highly qualified for the job”.

Corruption through bribery is confirmed but according to participants, this does not influence the service because those employed are highly qualified. However, for those MNOs who pay the bribe, this does not guarantee a good service to the consumer. The price disparities Participant 8 (**MNO**) among MNOs where MNOs are given different prices for selling airtime also suggest a level of corruption on the part of POTRAZ. Demanding bribes has robbed consumers of more players on the market, and more competition which would have otherwise provided better service, and lower tariffs.

4.2.6 Summary of Proposition Findings

This section has presented the results of the propositions as laid out in the conceptual framework (Figure 3.2 of this thesis). Data was collected from MNOs informants, mobile infrastructure vendors, civic society leaders and academics. These respondents are aware of what is happening in the mobile telecommunications industry and have rich knowledge of the sector. Institutional factors influencing the service of MNOs are of two types, the formal and informal institutional factors as outlined on the conceptual framework.

The findings have revealed that political factors, that is, formal factors, influence the service of MNOs and these include government involvement in the sector. Individual representatives of government, for example, ministers have been found to be influencing the service. Political factors have also been found to be influencing the service by preventing new players from entering the sector, hence the static number of the MNOs in the country.

Regulatory factors (formal) have also been found to be influencing the service provided by MNOs. This is because the regulatory agency is under government control and not independent. It has been found that there are disparities in the enforcement of regulatory rules by POTRAZ as there are biases relating to the enforcement of regulations in favour of the government owned MNO.

Infrastructural factors were found to be greatly influencing the service offered by MNOs in the country. Inadequacy of infrastructure, cost and coverage of infrastructure were found to be influencing factors. It was also noted that MNOs' Capital Expenditure (CAPEX) is affected by licence fees, procurement of infrastructural components, and customs duties. All these leave little income for MNOs to invest in the provision of quality service to the consumer and in expanding the network. The problems of the inadequacy of infrastructure confirm the findings by Aker and Mbiti (2010) who found that Africa has the lowest infrastructure investment in the world. That shows Zimbabwe is not alone in infrastructural problems. More should be done by governments in African countries if most of their citizens were to experience mobile telecommunications.

Informal factors include tribe and ethnicity, and corruption through nepotism and bribery. Tribe and ethnicity were not found to influence the service offered by MNOs in the country. Nepotism and bribery were found to influence the service offered by MNOs, but interviewees were not keen to elaborate. All they did was acknowledge the presence of nepotism and bribery in the sector. This is a sensitive subject as some respondents may have benefited from both bribery and nepotism at some point, hence the reluctance to elaborate. However, tribe and ethnicity could be there, but interviewees were not free to accept.

As a citizen of Zimbabwe, the researcher has seen disparities in the deployment of public utilities in the country. As mentioned by some interviewees, Matebeleland region is sidelined in most services, for example, education in terms of the ratio of schools to a population. It goes without saying that the same would apply to mobile telecommunications centres that would be provided in the already demarcated areas.

4.3 Emerging Findings

The previous findings were based on the five propositions stated in Chapter three. These propositions were set out according to the likelihood of formal and informal institutional factors influencing the services offered by MNOs in Zimbabwe. The interview questions were designed to confirm or to refute these propositions. From interviews some factors or dimensions emerged that were not anticipated before the interviews. These emanated from the discussions around the original propositions. Emerging factors include further ***infrastructural problems, tariffs and economic issues*** that have been found to be additional factors influencing the service provided by MNOS in Zimbabwe.

4.3.1 Emerging factor 1 Infrastructure

It has been found that infrastructure has a lot of dimensions that have greatly affected the service of MNOs in Zimbabwe. The broad issue of telecommunications infrastructure (availability and cost) expected from the conceptual framework was exacerbated by other factors. Whilst MNOs have had their own service problems, it appears most of these problems are because of infrastructural factors. There is an erratic supply of electricity, vandalism and theft of infrastructural components and problems with the road network that affect the installation and repairs of infrastructure.

4.3.1.1 Erratic electricity supply

All interviewees alluded to the problems of electricity outages by the nation's electricity supplier, Zimbabwe Electricity Supply Authority, (ZESA). Interviewees stated that they had gone for hours without electricity, and in most cases, there would be no connection to mobile telephones. In this technology era, where everything relies on connectivity, and technology that is driven by power, how can a nation operate under such circumstances? Businesses, individuals, scholars etc. need connectivity. The MNOs have increased their capital expenditure due to the erratic nature of electricity supply.

Long periods without power mean MNOs have resorted to using diesel generators which are very expensive to procure and maintain. Diesel is very expensive and is bought in forex with 20 litres of diesel costing US\$32.00. In addition to that expense, power cuts have proved to be costly because they reduce the lifetime of batteries that are used for power conversion. That means that the batteries must be replaced more frequently than when the power supply was regular. Participant 9 (**vendor**) added:

“You find that batteries that were installed in 2018 were said to last 10 years, but because of frequent power outages these batteries no longer last the prescribed 10 years. These batteries were being replaced as early as 2020, and each battery at the time cost US\$800.

The expense compared to the uptake of service, sometimes does not justify replacing those batteries, so there are sites where we do not replace batteries because of cost-benefit. That means the availability of network is very much compromised. For some areas, the providers just wait for commercial power (ZESA) to come back and that means consumers have network overnight only”.

Similar sentiments were echoed by Participant 7 (**MNO**) who stated:

“We have persistent power cuts, and we have resorted to using diesel fuel to power our stations and that diesel is bought in foreign currency”.

Where there will be no replacement of batteries there will be no network coverage because of the cost-benefit calculation and consumers will not get connected. The alternative source of power, generators and the use of diesel together with buying the replacement batteries add to the CAPEX of MNOs because these come at a huge cost. The effect that this has is that the MNOs service would be limited due to the costs incurred. Maintaining connectivity by MNOs would be difficult, and hence a lot of communities would be left unconnected due to the increase in capital expenditure. That goes to show how important electricity supply is to the mobile telecommunications sector. MNOs cannot operate without electricity and at the same time, the alternative comes at a high cost. Coverage and network extension would be curtailed by the MNOs' costs because MNOs will not be able to cover areas that still

do not have a network. Participant 10 (**civic society health**) added to the significance of electricity supply in mobile communications:

“There is a close relationship between network availability and the availability of electricity. We have come to understand that most of the boosters for the strength of the network are powered by local authority grid and electricity is very erratic in this country and so during the times when there is a power outage, it is not uncommon to run out of power with your mobile handset because there would be no electricity to charge it, so there is that relationship between cellular use and electricity”.

Infrastructure has been found to be enormously influencing the service of MNOs in the country. The availability of electricity cannot be over emphasised. While there would be no network due to an electricity outage, consumers also run out of power to charge their handsets.

Similar sentiments were expressed by Participant 1 (**MNO**) who stated:

“The mobile infrastructure is influenced by electricity outage that the country is facing. Power outage by ZESA means that subscribers cannot be connected”.

The above comments show how important electricity is to the functioning of mobile telecommunications. No electricity means no mobile network connection and no power to charge the handsets. MNOs cannot operate without power, and that ultimately adds to the inadequate coverage of mobile network in the country. Both these mean no service would be available to the consumer which affects their day-to-day activities. Participant 2 (**academic**) added:

“Poor network and electricity outage culminates into poor service. No electricity means no WIFI. Online teaching is affected. You find that there is no network, and you reschedule the class for another time, and then you find that there is no electricity”.

This shows how electricity outages are also affecting academic activities. MNOs cannot do anything about it without increasing their capital expenditure. Learners are on the receiving end. Since parts of the country are affected differently, that means learners who are more prone to an electricity outage in their area are more disadvantaged. This was expressed by participant 6 (**education**) who added:

“The other thing is that I feel they should extend/intensify their connectivity to rural areas, remote areas and even some places where we may say these places are connected but you may find that the signal is weak. Coverage must be very wide in the sense that we have children learning online. Only children who are in the privileged areas access these online lessons. The children who are in the remote areas where there is no connectivity tend to lose out and yet at the end of the day they sit for the same examination”.

The above comment shows how crucial connectivity is to all learners nationally. It becomes unfair when learners must sit for public examinations when some would not have covered the syllabus because of connectivity problems. This shows how critical the electricity and network coverage situation are in Zimbabwe.

It seems that the unavailability of electricity has not stopped ZESA from demanding prompt payment from users. The power authority still demands that bills be paid on time, regardless of the erratic service MNOs receive. According to participant 8, ZESA switches off electricity for clients who delay settling their bills on time, even if the delay is minimal. This was expressed by participant 8 (**MNO**).

“Telecommunications services can be switched off due to the delays in payment to the power supplier, ZESA. This power cut affects, for instance, hospitals, fire stations etc. Doctors are tremendously affected by the switching off power by ZESA. This happens yet payments would be made, say, in two days”.

This seems unfair because ZESA's service to consumers is not good and at the same time ZESA should understand that the country is in recession. Power cuts by ZESA mean bad service by the power authority and yet they still switch off power supply for a slight delay. It is unfortunate that MNOs cannot retaliate because that is the source of electricity that MNOs rely on. All the same, subscribers to the affected MNO will not have the service because of any delay in payment to ZESA by the MNO.

4.3.1.2 Vandalism and Theft

Participants have reported that MNOs' service provision is affected by a lot of vandalism and theft at base stations. Thieves are said to be ripping off cables, draining diesel, stealing generators and batteries at base stations. This has been attributed to

the current economic hardships the country is facing. This is then seen as poor service provision by the consumer. Participant 3 (**MNO**) added:

“What has influenced efficiencies sometimes and network availability levels is theft of material and equipment on many standby base stations; draining of fuel from generators or stealing whatever equipment that can be ripped off from the base stations which has increased security costs. Generators can be sold or striped for parts, draining of fuel for resale and petty criminals stealing batteries”.

The items stolen or vandalised from the base stations affect the service of MNOs. Subscribers cannot be connected, and they consider this to be poor service on the part of the MNO. Replacing the stolen items is not instant, and the affected consumers would not be connected until the stolen or vandalised items have been replaced. Participant 6 (**civic society education**) feels that more should be done about infrastructure and expressed the challenge faced by the MNOs:

“Infrastructure still leaves much to be desired: they still must do more. The other challenge is that people are destroying the infrastructure, stealing and the problem we have is vandalism and theft of infrastructural components”.

The problem of vandalism and theft of infrastructural components has affected the service of MNOs. However, it is difficult for MNOs to keep track of these without incurring further costs for securing the infrastructure at base stations. There would be a need to enhance security at base stations and that means additional costs after buying the equipment and running it and then securing the infrastructure. The situation affects MNOs in that they would not be able to provide adequate service to the consumer, and to extend coverage because of the costs incurred.

It appears that there is a ready market for the items stolen from base stations. What is puzzling is who could be buying these specialised components as laymen might not know their uses and who to sell to. Participant 10 (**civic society health**) stated:

“Vandalising of infrastructure. There is a black market for infrastructure components. It is all in line with the prevailing socio-economic conditions in the country. The police cannot exert their influence, and civil society has no power to report people, and the support system is also limited.

We always speculate that it is probably insiders who are on the forefront of vandalism and theft and know a lot about these things and their value and trading them on the black market. When there is a fault, the IT team tells us that there is something wrong at the base station, booster, missing cable, diesel, batteries etc and that compromises the service!”.

Some stolen items like diesel and generator parts are easily sold to the public in the black market. What about components that are purely for telecommunications? Who can buy them apart from someone from a telecommunications company. These require someone who knows what they are used for. According to the above comment, that could be an inside job, just speculation. It could also be sabotage by rival MNOs.

There is indeed a black-market where these stolen components are sold. Participant 11 (**MNO**) expressed similar sentiments and added:

“Thieves drain the diesel from base stations and sell it on the black market, and this can only be blamed on the economic hardships influence in the society”.

The economic hardship faced by Zimbabwe has created large-scale unemployment. People are fighting for survival and hence the stealing and vandalising of equipment at base stations. Crime is on the rise such that the law-enforcing agencies cannot cope. Vandalism and theft influence the service to consumers because any stolen component from the base station means that consumers will not be connected. Repairing or replacing the stolen items is not easy for MNOs. The acquisition process is slow as the components are bought from other countries and MNOs must apply for foreign currency from the Reserve Bank of Zimbabwe (RBZ). MNOs must consider replacing the components or consider the cost-benefits. If the base station is not an earner, then the MNO, might consider not replacing the vandalised or stolen components. That would affect services to those consumers served by the vandalised base station, that’s widening the coverage gap. If the MNO decides to replace, it could be a long and expensive process.

4.3.1.3 Road Network

The installation of infrastructure requires that technicians travel to the designated areas to set up base stations. However, in Zimbabwe this is a challenge because the

road infrastructure is not well developed and some areas, especially rural areas, are difficult to get to. This means that the population that is not linked by road will not be accessible to MNOs. The road infrastructure is the government's responsibility, and MNOs cannot do anything about it. As a result, part of the population is unserved. According to all participants, it appears that the state of the roads makes it difficult for MNOs to provide a network in some areas of the country. Participant 8 (**MNO**) stated:

"Then we have the road transport network, it's purely a government responsibility but then, that affects MNOs' service provision. For instance, for rural people the nearest service centre would be 80 km away. That's a franchise service centre and the actual service centre that has got everything that the subscriber would want in terms of services, would be over 200 km away. You find the impoverished people would have to pay US\$15 to go and replace a line that only costs US\$1.00".

MNOs might have surveyed an area to decide where to put up a base station but because there is no road to the place, the population in that area will be deprived of connectivity. That would not be the MNOs' fault but a government ministry that has nothing to do with MNOs. This is supported by participant 4 (**civic society education**) who stated:

"Where there are no tarred roads, there is no mobile service. Causes may be many, but I think there is lack of will in whoever is supposed to champion communications has failed to service the roads leading to these areas".

According to this participant, the ministry responsible for roads is not executing its mandate. As a result, the population in those areas is deprived of what other citizens are enjoying leaving them unconnected with people at home and abroad. Participant 5 (**MNO**) expressed similar sentiments about the road conditions in the country:

"The state of road infrastructure affects mobile infrastructure. Some roads, especially in rural areas are impassible, and hence prohibit installation of mobile infrastructure. Roads' degradation, bad weather conditions, for example, floods, render roads impassable, leading to no or limited service to subscribers".

The above statements were supported by **participant 10** (health) who added:

“The state of the roads in the country makes it difficult for MNOs to provide good service. If there is a fault, for example, when there has been rains or storm, it will take time for technicians to attend because the roads would be impassible. The state of bridges is a cause for concern. Technicians would only attend to the fault after the road or bridge has been repaired”.

Most of the roads in the rural areas are dust roads (not tarred) and the challenge is during the rainy season. The bridges are sometimes swept away by floods and the roads will be muddy, rendering the areas unreachable by MNO technicians. It appears the country's road infrastructure mainly affects rural areas. This reinforces the difference in provision between urban and rural areas noted earlier. This is an observation by participant 9 (**MNO**) who stated:

“Setting up a network station in the rural areas, its mostly on the mountains and conditions are that base stations are placed on mountain tops. That means that you must build the road as well as the tower up the mountain top”.

If the road network is not improved, it will be difficult for the rural population to be connected to a mobile network. It is the responsibility of government to make sure that everyone is reachable by road and to build roads that would enable MNOs to access areas, for example, in the mountains and to be able to set up their base stations.

4.3.2 Emerging Factor 2 Tariffs

There is an outcry from all participants regarding tariffs. Whilst the interviewees are aware of the underlying problems leading to high tariffs, the ordinary consumer blames the MNOs. From previous research on the perceptions of consumers about the services offered by MNOs, tariffs have overwhelmingly caused an outcry among consumers. The findings of this research suggests that providers should make it clearer to the consumer that the high tariffs are not because MNOs just want to prosper at the expense of consumers.

All participants bemoan the high tariffs that are charged by MNOs. Some MNO participants cite justifiable reasons for high tariffs. Participant 1 (**MNO**) stated:

“Tariffs are too high. Components are expensive, and there are heavy customs duties levied on them, licence fees are too high, resulting in high charges by

MNOs who would like to stay in business. The tariffs are decided by government through POTRAZ that does not consider the MNOs' inputs".

This participant is alluding to the fact that MNOs have a lot of costs and hence the justification of high tariffs. Consumers do not understand the reasons for high tariffs and hence the outcry. High tariffs mean that very few consumers can afford these, and a greater part of the population is left out of participation in mobile telecommunications. In short, no money, no connection.

Participant 2 (**academic**) also supports the views of participant 1 that tariffs are too high.

"Tariffs are too high and that makes it expensive for MNOs to maintain communication in the country. I am not sure if it is because of the dual currency, stuff about the economy, sanctions etc. It is difficult – I can only say, the economy".

There seems to be a lot of factors contributing to high tariffs. The use of two currencies, the US dollar and the local currency is a mismatch. Currency fluctuations are at an alarming rate that consumers do not understand. Very few consumers can afford mobile telecommunications because of the high unemployment rate. The country is under sanctions for several reasons, including human rights violations and does not have good relations with some countries and several international organisations. All these problems emanate from bad politics.

Participant 3 (**MNO**) asserts that the revision of tariffs by the ministry of Post and Telecommunications takes too long for the operations of MNOs and states:

"Tariff revision by the ministry takes too long. Currency fluctuations are not considered when setting tariffs and the costs of investment influence the type of service offered by MNOs because you cannot give sufficient service when your revenues are low".

The above comment alludes to the fact that fluctuations in currency are not considered by POTRAZ when setting tariffs. That determines the type of service consumers will receive from MNOs. If you are operating at a loss, for instance, you cannot offer services that would cost you above what you receive for them.

Tariffs paid by subscribers do not go hand in hand with salaries. This was expressed by participant 4 (**civic society education**) who stated:

Tariffs are killing. According to us they are high, ever increasing. Besides, our currency is not very stable. When they increase their tariffs, the tariffs increase more than the salary rises, so that in the end the bulk of your salary goes to mobile communication. Each time they increase tariffs I am always on the losing side”.

The problem is not MNOs’ but the state of the country’s economy. Salaries are very low, and yet mobile tariffs are high, making it difficult for the ordinary person to maintain communication. Unemployment in the country is very high. Young people cannot find jobs, and that is the age group that would use mobile communication extensively. Most people do not consider mobile communication a priority and as a result, these people would not be connected because they cannot afford the tariffs.

The situation of high tariffs is supported by participant 6 who further states that the amount on recharge cards is too little for the amount charged:

“Tariffs are just too high. The recharge cards amount, and the data is just too little for the stipulated amount of money. For a US\$1 you may speak for only five minutes.

US\$1 is a lot of money for an ordinary Zimbabwean who would convert the local currency to the US\$.

Participant 10 (**civic society health**) confirms the statistics in table 2.1 that makes comparison of tariffs among SADC member states. The participant makes comparison of tariffs between Zimbabwe and South Africa.

“Zimbabwe is extremely expensive, most people do not phone. I normally do not use my phone to make calls. Even my work phone, which is a contract, I do not use it. Compared to South Africa, where airtime for R50 that is equivalent to 46 cents US\$. With R50 you get data enough to last for the whole week and an equivalent of that in Zimbabwe you cannot even make a call”.

Very few people can afford mobile tariffs in Zimbabwe, leaving a great part of the population unable to use mobile technology.

The same sentiments were expressed by participant 11 (**MNO**) who added:

“Mostly the ordinary person cannot afford to make calls because they are very expensive due to the per second billing. The charges are exorbitant for ordinary people because they cannot afford, especially the poor masses, and remember these are developing countries and a few people are working and now technology has taken over everything.

You do everything on the phone, you want to buy anything is on your phone, internet is in your phone. So, the mobile charges then are very expensive especially now that it is the way of life and inflation has also made it impossible for people in poor countries where fewer people are at work”.

The above comment means that even those who have mobile phones cannot make calls because they cannot afford to maintain communication. Recharge cards are expensive, and it would not be surprising to find that people now keep their phones just to receive calls and messages.

As has been stated before, MNOs buy their infrastructure in foreign currency, the US\$ which, in Zimbabwe is scarce. However, mobile services are paid for in local currency, the Zimbabwe dollar whose value against the US dollar is falling. This situation is a mismatch because the dual currency that the country uses creates pricing problems. Participant 12 (**MNO**) stated that the problem associated with this situation influences the service offered by MNOs:

“Services in Zimbabwe are sold in Z\$ (local currency) and yet procurement is in US\$. This leads to building a premium into that pricing and thus increase tariffs as well”.

According to the above comment, building a premium price would mean that fewer people would be able to access the service, thus increasing the number of people who are not connected. Since the Z\$ is of low value, converting the US\$ into Z\$ would give an alarming figure for tariffs. This was observed by participant 9 (**vendor**) who stated:

*“Tariffs in Z\$, I can say they are expensive, considering the salaries and what people are getting it is converted at bank rate, it seems expensive because the bank rate now is Z\$1300 to the US\$. Businesses in Zimbabwe peg their tariffs in what they call treasury rates but that is the black-market rate. **As of today***

25 May 2023, US\$1 is Z\$3,000 at treasury rate and at bank rate it is Z\$1,200/1,300. It sounds expensive if someone says I am buying airtime for Z\$2,000 but converted to the US\$ amounts to less than US\$1. Therefore, looking at tariffs from that angle does not make sense”.

4.3.3 Emerging Factor 3 Economic Issues

This section discusses the participants' views of currency and monetary issues most of which emanate from the use of two (dual) currencies by the country. This adversely affects the mobile telecommunications service. Participant 1 (**MNO**) asserts:

“Network is affected by several issues: The hefty licence fees paid by MNOs mean that even if MNOs aspired for a wider coverage, this is likely to be constrained by the cost of licences and heavy customs duties charged on imported equipment. Due to the expenses incurred MNOs are unable to hire enough staff”.

MNOs spend a lot of money on imports of infrastructure components. In addition to that they pay heavy customs duties towards the importation of these components and licence fees to the regulatory agency, POTRAZ. That results in a lot of pay outs by MNOs, leaving them with a small budget to carry on. As a result, they cannot hire enough qualified staff because their budget is constrained. Understaffing means that services to the consumer are constrained.

The use of dual currency seems to be causing a lot of problems, as observed by Participant 2 (**civic society academic**) who stated:

“The country uses two currencies, the local currency and the US\$. That itself is a problem to the subscriber as businesses prefer the US\$ and yet most ordinary people only have access to the local currency that businesses shun. The other problem is that the country is under sanctions”.

This is a difficult situation because most subscribers cannot afford to pay in foreign currency. The only currency they can use is the local currency, which MNOs and all other businesses in the country do not accept. Only those subscribers that can source foreign currency are able to access the mobile service from the MNOs. MNOs are also affected because that means their revenue is affected. This was supported by (Participant 11 (**MNO**) who added:

“If you design a product and you introduce it to the market, you have costs and those costs need to be recovered through pricing, it becomes a challenge when you are told that you cannot charge in US\$ when you have paid in US\$ for all the inputs of the product”.

The Zimbabwean currency is not stable. This obviously influences the service offered by MNOs. Participant 3 (**MNO**) alluded to the same situation:

“Fluctuations in currency, sometimes end up frustrating to operators because costs go very high whilst the operators depend on the authority from the Ministry to be able to authorise price reviews that should go hand in hand with the state of the economy”.

Delays in the authorisation of price changes mean that by the time the MNOs get the go ahead to increase tariffs, the proposed prices would not be a true reflection of the situation, considering the rate of currency fluctuations. The currency issue in the country puts MNOs in a very precarious position.

The stability of currency means a lot to operators as well as subscribers. The fact that MNOs are likely to adjust to a premium pricing figure means that subscribers end up paying more than what they otherwise would have paid.

The economic problems experienced by the country affect both the service recipients and the provider. The MNOs' costs are very high, and on the other hand consumers feel tariffs are too high. Participant 5 (**MNO**) attributed the country's monetary problems to the level of inflation that the country is currently facing, saying:

“Service is affected by the prevailing economic problems in the country. Licensing and payment to vendors is in foreign currency and yet subscribers pay for the services in local currency. Local currency payments complicate payments and in the end the service offered to the consumer is impacted”.

As seen earlier, the exchange rates between the local currency and the US\$ are alarming. For an ordinary person the cost of a recharge is prohibitive. On the other hand, the MNOs need foreign currency for the procurement of infrastructure components, to pay for operating licences and so on. This is also highlighted by Participant 8 (**MNO**) who explains why the service is poor:

“The reason why the service is poor for example, companies in the telecommunications sector borrow money to expand their network base stations and the like, but the money borrowed is in foreign currency and yet services are paid for in local currency, that is, the Z\$”.

Expanding base stations requires that MNOs purchase infrastructure components, and these are bought in foreign currency. That is why MNOs insist on charging foreign currency for their services instead of collecting local currency that they would then convert into foreign currency.

The foreign currency situation seems to be paralysing the whole mobile sector. For any improvement in infrastructure, that is, the upgrading to the latest technology requires foreign currency that is very scarce in Zimbabwe. As a result, the country is losing out on technological development in this area. This is supported by Participant 12 (**MNO**) who states how far the country is lagging in technology.

“There are continuous improvements being made in the world due to innovation, but to be able to improve, you need foreign currency to import the required equipment. Currently, foreign currency is scarce in Zimbabwe”.

As we have already seen, the country has two exchange rates, the market rate, which is the black-market rate and the bank rate which offers a better rate. It is difficult to get because of restrictions by the Reserve Bank of Zimbabwe, (RBZ) that makes it difficult for businesses to get foreign currency.

4.4 Summary of Emerging Findings

These emerging findings greatly affect the MNOs service provision. The factors described above are stressful for any organisation that tries to give a perfect service. From the consumer's perspective, MNOs' tariffs are too high. However, the real reasons for high tariffs are not known to the ordinary consumer. Research that has been conducted in the past has only given the perspectives of consumers about the services they receive from MNOs. The reasons why the consumers were not satisfied with the service offered by MNOs can now be confirmed from these emerging themes which all lead to cost pressures on providers.

This thesis provides the reasons why tariffs are so high and answers to questions that consumers have always asked: why tariffs are expensive, services are poor and that some areas are not reachable by mobile telecommunications.

The next section discusses the **mitigation** of the mobile telecommunications situation in the country, and thus, addresses **RQ3**: of the study.

4.5 How can the mobile service problems be mitigated?

This section addresses **RQ3** and presents various suggestions by respondents on how to mitigate the factors influencing the services provided by MNOs in Zimbabwe. Most of the suggestions point to government rules, policies and regulations as well as government's participation and interference in the mobile telecommunications sector. The government is a player in the market, with 100% ownership of fixed lines and a 100% owned mobile telecommunications company, alongside ownership of the regulatory agency, POTRAZ that oversees the operations of MNOs. Participants suggestions include **government policy and regulations, infrastructure, economic issues** and more **competition/liberalisation** in the mobile sector.

4.5.1 Government policy and regulations

There are members of Zimbabwe society who cannot afford mobile communication. For example, the elderly, the disabled and students. These vulnerable groups are the government's responsibility because most of them have no income but live on handouts. Technology should be accessible to everyone regardless of social status. The government should have a policy that assures that these people are not left behind. Participant 10 (**civic society health**) suggested:

"It would be good to see government subsidise communication as it were, especially for students and the elderly in the community, the disabled and stuff like that which should be a social protection mechanism for people. It is almost agreed now that communication in general, WIFI has become key generally to operate in this global village that has become. Social protection could also help".

It should be government policy to make sure that members of society who cannot afford mobile phones are catered for by government. Mobile communication has become a way of life, and these people should be the responsibility of the government.

POTRAZ, the regulatory agency is under government control, so the government controls the MNOs through this agency that sets rules and boundaries for MNOs and as such this should be included in the agency's rules and regulations.

“Government must heed reducing its influence on these MNOs so that we have perfect competition where there will be good quality service and the prices will go down”. (Participant 13 (**civic society**))

The independence of POTRAZ would mean that the government interference is reduced as the agency would run its business independent of the government. That way, there would be an improvement in the services offered by MNOs. It is believed in Zimbabwe that anything run by the government has bottlenecks and bureaucracy. The independence of POTRAZ would mean that these two characteristics are eliminated. The delays by POTRAZ to revise tariffs would be solved because the bureaucracy that is causing delays would have been eliminated and MNOs would get approval within a shorter period, thus keeping up with economic changes.

Most interviewees suggest that the government should fund basic infrastructure. If, say, the government provided most of the initial infrastructure, that is, towers for base stations, which are said to be the most expensive item for MNOs, it would be a relief to MNOs who would then just mount their masts where the government has provided the basics. Some governments fund infrastructure, making it cheaper for MNOs running the network as that would transform into lower tariffs for consumers. A government contribution to infrastructure would help improve coverage. Participant 7 (**MNO**) suggested:

“It should be government policy to fund infrastructure. Other countries like India, the government of India has a digital policy, where government funded all infrastructure erection for fibre, right to the rural areas, then put what we call community information centres in almost every village or district. This enables people who cannot afford handsets to go to a community centre and experience mobile communication. Alternatively, government could allow the manufacture of handsets in the country, and that would reduce the prices of handsets, since these would be manufactured in the country.

With a revised government policy in place, those areas shunned by MNOs would be connected. At the same time, MNOs would not feel obliged to service uneconomic

areas where they would not recover their infrastructural expenses. These areas become economical because the MNOs would not have to worry about spending a lot of money installing infrastructure since the government would have provided for the base stations and at the same time, those savings would be passed on to the consumers in the form of reduced tariffs. More consumers would be connected compared to what is currently happening.

The government policy on foreign MNOs should also be revised, as this has denied consumers of a wider choice of MNOs and consumption. The government should make conditions favourable for international MNOs. That would improve the service to consumers as the MNOs would be competing and trying to offer the best service. That way, consumers would have a wider choice of MNOs, and besides, high tariffs would be a thing of the past.

4.5.2 Infrastructure

MNOs need a lot of support in their business if they are to provide quality services to consumers. Currently, there is no obvious support for these players from POTRAZ. Since the agency is owned by the government, that means there is no support from the government for these MNOs, and yet they provide an essential service to the community. MNOs shun uneconomic areas for fear of running at losses. The government should step in and set up base stations in those areas. Participant 2 (**civic society academic**) suggested:

“If there could be a scheme to encourage MNOs to assist communities because people really want to stay connected with their loved ones. Boosters should be installed where the network is very low especially in rural areas where network is usually very weak”.

There is a need for a wider coverage, and for boosters to be installed in areas that have weaker signals. Some areas might be connected but then, the signal in those areas might be weak. Generally, interviewees are calling for a wider coverage that would include remote areas and those areas connected but experiencing a weak signal. Participant 4 (**civic society education**) suggested:

“They should extend connectivity to rural areas, remote areas and even some places where we may say these places are connected but you may find that the signal is weak. My suggestion is that coverage must be very wide.”

MNOs need huge sums of money to extend coverage to rural areas. Infrastructure components are very expensive for MNOs. That affects their ability to extend coverage beyond what they can afford. Most interviewees suggest that it should be the government’s responsibility to install or fund infrastructure for MNOs to extend coverage. Participant 7 (**MNO**) suggests:

“Towers are very expensive for MNOs, and it should be the responsibility of government to provide towers and power so that MNOs just bring in their active equipment”.

If the government took the responsibility of mounting towers, more areas would be connected and signals would improve, and more people would be connected. That means the heavy burden of setting up base stations would be lifted off MNOs. That way, MNOs would then be able to embark on other aspects of the mobile telecommunication’s service, especially keeping up with technological developments. Whilst the country is lagging other countries in mobile technological development, it is best that the mobile sector moves at a pace according to what is most comfortable. In 2022, Econet and NetOne introduced 5G in the two major cities, Bulawayo and Harare. Since then, no further development has been recorded because the country is not ready for 5G technology. If the economic climate in the country improves may be the MNOs could comfortably operate 5G, which now is beyond what the country can accommodate.

Generally, MNOs in Zimbabwe operate 4G, 3G and 2G on their sites. Fourth Generation (4G) consumes more power, and in the situation of Zimbabwe, it proves to be uneconomical. As mentioned earlier, when there is no electricity and the system is on batteries, those batteries tend to wear out before their time because their use is being overstretched. That becomes an expense for MNOs who have to replace these batteries which are very expensive. It makes sense to do away with the 4G technology.

Participant 9 (**MNO**) says 4G is a luxury and asserted that:

“In terms of technology we could have base stations with less power consumption that can take fewer subscribers than usual. On site we have 4G, 3G, and 2G. We can have equipment that consumes less power and do away with luxuries of 4G. We can have, 3G, may be 2G sites that serve voice calls”.

The idea of 5G was to keep up with technology, but in the case of Zimbabwe it is seen as a luxury, because the sector is not ready for that. The mobile industry does not seem to be ready for any generation higher than 3G. It appears that 4G is not sustainable. MNOs may be forced to halt the rolling out of 5G which only covers a few areas in the two major cities, Bulawayo and Harare. The country is in recession, and so it would be in the best interest of the populace to avoid luxuries of 4G and 5G and maintain just the two generations, 2G and 3G that appear to be sustainable and can be available to everyone and reach a wider section of the population.

4.5.3 Economic issues

In addition to funding infrastructure, government should consider reducing licence fees and customs duties as these strain the MNOs' working capital. Such reductions would help the viability of MNOs. That would also help in the reduction of tariffs. The fees charged make it difficult for MNOs to extend coverage because of the expense of buying the components coupled with government heavy licence fees and customs duties levied by government on imported components. The use of dual currency does not make it easy for MNOs who must charge local currency for their services and yet they are expected to buy components in foreign currency, which is very scarce in Zimbabwe. MNOs provide an essential service to the country, and for them to continue providing that service the government should give them concessions for their efforts. They can do so by reducing the customs duties on imported components, for example, for any mobile telecommunications imports exceeding a certain figure, the duty charged could be set at a certain percentage. Participant 1 (**MNO**) suggested:

“MNOs install very expensive boosters, which, apart from being expensive to purchase, customs duties levied on them are heavy”. At the same time, government is advocating for the sharing of these boosters with other MNOs encouraging infrastructure sharing and yet not all MNOs have invested in infrastructure. Government should acknowledge the inputs of the incumbent MNO to avoid the MNOs benefiting at the expense of another”.

Here, the government could reduce the licence fees or award tax relief for certain infrastructural components for the importing MNOs. This could be an incentive and would encourage the MNOs to invest more and thus expand network coverage.

Similar suggestions were made by participant 11 (**MNO**) who suggested:

“I think the government itself should levy less taxes on MNOs. MNOS are being charged exorbitantly by the government. So, MNOs have no option but to levy the same amount to consumers who at the end of the day bear these costs. I think government needs to look at that and see that they reduce prices – what they charge MNOs”.

When calling costs are reduced, that means more people are likely to be able to afford mobile communications. There is a need for the government to reduce taxes and licence fees on MNOs because these taxes are too high and hence the MNOs have no option but to pass on those expenses to the consumer. High taxes and licence fees would affect the MNOs’ ability to expand the network leaving more people unconnected. Participant 11 suggests:

“I also think the government must support the installation of fibre optics because fibre optics help reduce calling costs”.

It would be a relief to MNOs if government supported the installation of fibre optics. Since MNOs would not need to go through the costs and problems of importing components where they would have to convert local currency into foreign currency and the process of applying to the RBZ.

MNOs have found it hard to make foreign payments to vendors. The process of getting money from the government bank (RBZ) to make overseas payments is difficult for MNOs. MNOs’ services are paid in local currency, which is then converted into foreign currency to pay international suppliers. That is obviously a stressful exercise.

“The Reserve Bank of Zimbabwe (RBZ) should also prioritise these MNOs so that whatever money they make, they quickly convert it may be, into gold, or US\$ to help MNOs pay their dues overseas and their international statement also be settled on time in order to foster good relationships with vendors”.

Participant 11 (**MNO**).

Despite advancements in technology, it appears Zimbabwe is lagging other countries in several areas in mobile technology. The marketing channels used by MNOs in the country are expensive. In other countries, you buy your top-up online through your mobile phone App. In Zimbabwe there are roadside airtime sellers, or you buy top up vouchers from a supermarket till and obtain a receipt. All this could save time and money. Rather than employing some roadside vendors, top-up can be purchased from your phone without having to incur costs of having to employ someone or supermarkets to sell the MNOs airtime. The way it is done in Zimbabwe attracts costs that add up to affect the tariffs charged by MNOs. These unnecessary additional expenses not only influence tariffs but also network expansion. Too many costs for MNOs leave very little for network expansion. Participant 12 (**MNO**) contributed to the issue of marketing channels used by MNOs in Zimbabwe, shows that the country is lagging in developments in the mobile telecommunications:

“The other issue also is the marketing channels that are being used. So, if you go to a country like Zimbabwe, you probably need someone standing by the corner selling airtime. You either go to a supermarket and there is someone who sells to you and there is a physical receipt and everything like that. Whereas in other markets, they get their clients digitally, they interact with them digitally, and they serve them digitally which lowers costs.

Zimbabwe MNOs still use physical cards for top up whereas other countries top up is done online or from your phone/device. Similarly, queries are answered by having the clients physically going to the call centre as opposed to online enquiries. Online enquiries save money and time for the consumer, and for MNOs online services would cut down the salaries of staff because the consumer just goes online on the mobile phone instead of being physically attended to at a call centre. MNOs would save money for network expansion, and importation of components.

4.5.4 Competition/Liberalisation

Participant 10 suggests that there should be more players in the industry. Currently the industry is a monopoly, with two active players and one struggling one. The market leading MNO, Econet is said to be expensive because there is no challenger to come up with lower tariffs to consumers. This situation is bound to continue for as long as there are no new players entering the race. That is why Zimbabwe is the most

expensive country in the Southern African Development Community, (SADC) region. The Uruguay Round of 1997 had called for the liberalisation of the sector to allow new players to enter the market. It appears Zimbabwe, as one of the signatories to the Uruguay Round has not liberalised the sector 26 years later.

Liberalisation was meant to rid monopoly and give consumers a wider choice of providers. In Zimbabwe that does not seem to be the case. If there was competition and more players, tariffs would be lower, and consumers would experience good quality service because of competition. Participant 10 (**civic society health**) compares Zimbabwe with South Africa, another SADC member state.

“There is a high degree of monopoly. I believe Econet is expensive because they know that we have no option, so the market could be opened to bring in other players just like in South Africa where providers are free to offer their services then we would see competition from providers, and we could also experience improvement in services and the lowering of prices. The quality of service will improve because they want to retain their customers, and we would see the prices going down”.

Almost all participants called for the liberalisation of the sector. There is a need to have more players in the Zimbabwe mobile market. This requires reforms in government in the handling of foreign companies, especially when it comes to the shareholding issue. This issue has discouraged would-be investors in the country as we have seen how the first owner of Telecel, had to leave because the government required the firm to cede 51% of shares to locals. There are no foreign MNOs in Zimbabwe. This is because of the government unfavourable rules and regulations that scare away the would-be foreign investors. This has denied the Zimbabwean consumer a wider choice of MNOs, and hence different technological innovations especially from foreign companies. Liberalisation of the market will see an independent regulatory agency, which, for now is under government control.

Participant 13 (**civic society regional marketing manager**) supports participant 10 in advocating for more players in the industry and the benefit of having more players, adding:

“Competition is healthy. Whenever a new player comes in, it means the old player needs to up his game in terms of network, in terms of service, in terms of price. Competition is always healthy and welcome”.

According to the above comment, service to the consumers will improve because new players would be a wake-up call to the old player who is used to having it their way without a challenger. Competition would have MNOs try to bring good service. However, before that happens there is a need for the government to reform, do away with policies and regulations that impede competition. The government should let go of the sector, make the regulatory agency independent and leave participation in the sector, that is, sell NetOne to a private investor. This would lead to a conducive environment in the mobile telecommunications industry.

Participant 11 (**MNO**) supports participant 13 on having a competitive mobile telecommunications sector and asserted:

“To improve the service, the government should let the market free so that new players can come in. More competition would mean there is more innovation, there is more creativity and the price of calls, and data would go down because people are all vying for the same market, so they tend to reduce their prices so that they become more attractive to consumers”.

“I think just privatising the sector would be good and independence is required on the side of POTRAZ. There should not be too much government involvement on POTRAZ.

Had the Uruguay Round recommendations been adopted by Zimbabwe, we would not be having the government dominating the sector. This was the main discussion during the Round, that the telecommunications sector needed to be liberalised with new players coming in to provide services to the consumer. The government needs to reform and let new players into the market.

Participant 6 (**civic society education**) suggested:

“I feel that if there was competition of some sort, most probably this might assist. For now, we have got three registered MNOs competing. If we may have at least ten or so, these people would be competing and each one of them would

be saying I do not want to be surpassed by others and that way, the quality of service might improve”.

Opening the sector to competition was part of the Uruguay Round agenda, and the fact that interviewees are talking about it, it is necessary that the government of Zimbabwe addresses that. The Zimbabwe telecommunications sector is in this situation because the government of Zimbabwe did not adhere to the suggestions made at the Uruguay Round, despite having signed the agreement. There is a need for the country to reform, liberalise the sector as was agreed at the end of the Uruguay Round that was concluded in February 1997.

This section has given an account of what interviewees suggest for an improved mobile telecommunication sector that would see improved quality of service to the consumer, reduced tariffs and an extension of mobile coverage in the country. Attention should also be given to the rural areas that somehow seem to have been neglected, leaving a great part of the country's population without or with inefficient network.

4.6 Summary of the Findings chapter

This chapter explored the propositions in tables 3.4, and emerging themes in table 3.5 generated from the literature presented in Chapter 2 with data that was collected from MNO informants, civic leaders and academics. The institutional factors that influenced the services of MNOs were identified and confirmed. These included both formal and informal institutional factors. That answered RQ1 and RQ2 of this thesis. Section 5.4 addresses RQ3 in which interviewees make suggestions of how service problems can be mitigated. Figure 4.1 is a diagram showing factors that influence the services of MNOs in Zimbabwe.

Key themes amongst the political and regulatory factors included disparities in the enforcement of regulations, which favoured the government-owned MNO against the private MNOs. This deprives some people from accessing a mobile network. Besides that, as the government also owns the regulatory agency POTRAZ, political bias was also highlighted where there are fewer requirements for buying SIM cards by the government subscribers than their private counterparts. Consumers are forced to

switch to the government owned operator and meet with poor service. Infrastructure has been found to be inadequate, with many people not connected to the network.

In terms of infrastructural factors, there is currently a problem of electricity faced by the country, with the rural population tremendously affected. Buying and installing infrastructure components is very costly for MNOs who must buy these from overseas using the US\$, which is scarce and expensive in Zimbabwe. That makes it difficult for MNOs who must raise foreign currency to pay, and yet their services are paid for in the local currency. The study has found that there is vandalising and stealing of infrastructure components from base stations which most interviewees blame on the economic hardships experienced by the people of Zimbabwe. The result of all of this is that many people in the community will not be connected due to the costs experienced by MNOs. These are then passed down to consumers in the form of high tariffs.

Informal institutional factors, such as the socio-cultural institutions for example, (ethnicity and tribe), have been found to be irrelevant to Zimbabwe's mobile telecommunications because Zimbabweans live together, and it is impossible for an MNO to discriminate when providing mobile services in such a situation. However, an informal factor that influences the mobile services in Zimbabwe is that of corruption. Two forms of corruption, nepotism and bribery have been found to be present in the Zimbabwe mobile telecommunications sector. Most interviewees stated that nepotism and bribery were there but were unable or unwilling to elaborate. Interviewees mentioned that people were hired and promoted according to who they knew. According to the interviewees, that did not influence the service because those recommended were qualified for the jobs. Bribery, just like nepotism was said to be happening in the sector. Bribery is believed to be the reason why the Econet founder had to fight the refusal of a licence when he met all the requirements of registering a mobile phone company. He had refused to pay a bribe, and as a result it was alleged that he was abducted and tortured for his refusal to pay a bribe to be registered. Bribery has become a cultural norm in the country because of the socio-economic problem that the country is facing. Bribery would influence the service offered because the ability to pay a bribe does not mean that the payer can provide a good service.

The interviewees were asked to give their suggestions/views as to how the mobile phone services could be improved. Firstly, interviewees called for a change in government policy and regulations. They suggested that the government subsidise communication for certain members of society and liberalise the sector to allow for competition. In terms of infrastructure, interviewees suggested that the government should fund infrastructure, for example, the mounting of towers to ease the burden of MNOs and help them reduce CAPEX. If the government got involved the uneconomical areas shunned by MNOs would have a better network because government would have provided the infrastructure and MNOs would only bring in their active equipment, and that way they would have saved a lot of money with the savings going toward technological innovation.

It has been suggested that Zimbabwe concentrate on using generational technology, 3G and 2G because the country would be better working with these two, with some interviewees saying 4G is a luxury. The country is not ready for higher technology, 2G and 3G would have more people connected than having a higher generation that consumes more power, at a time when there is a shortage of electricity.

Interviewees suggested the liberalisation of the sector so that the country could have more players in the industry. That would reduce tariffs that currently, are the second highest in the SADC region. The mobile sector has had only three MNOs for two and a half decades, no new entrants. New players are needed in the sector.

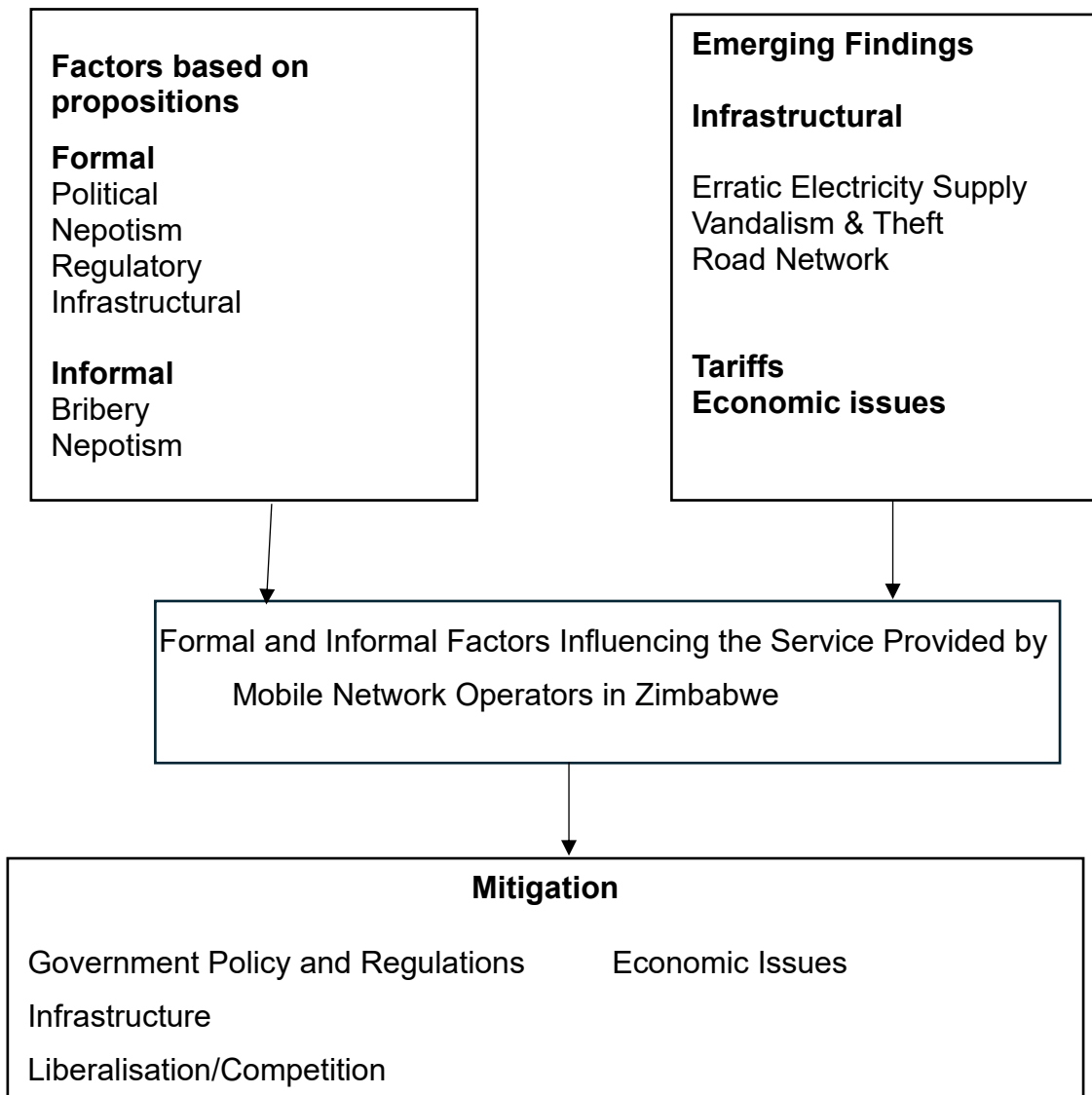


Figure 4.1 **Summary of findings**

Source: Author

Chapter 5 Discussion

5.1 Introduction

This chapter further discusses the research findings based on the three core research questions of this thesis and how these findings link to previous literature, that is, the conceptual and empirical literature.

This thesis sought to address three research questions:

RQ1: What are the formal and informal institutional factors influencing the service of MNOs in Zimbabwe?

RQ2: How do these factors influence the service of MNOs in Zimbabwe?

RQ3: How can the service problems of mobile telecommunications in Zimbabwe be mitigated?

This section, using the pillars of regulatory, normative, and cultural cognitive institutions (Scott 1995, 2014), locates the findings of this study within existing theory and established concepts.

Institutions are presented as follows, the regulatory pillar and its constituents are presented under 5.2; the normative pillar, and its constituents are presented under 5.3, Finally, the cultural cognitive pillar and its constituents are presented under 5.4 Conclusion. 5.6 Conceptual Framework

5.2 The Regulative Pillar

This section discusses the regulatory pillar as shown in figure 5.1 of this thesis. The regulative pillar houses the political factors and regulatory factors that have been found to influence the service offered by MNOs in Zimbabwe. Political actors, including government officials, ministers, members of parliament, and, in the case of Zimbabwe, members of the ruling party can order the shutdown of a network whenever they are in an area. The government often orders a shutdown during elections. Political interference by government has affected MNO operations as there is uneven treatment of private MNOs as opposed to the government MNO. The uncertain political

atmosphere in the country is also not conducive to investment as investors are not sure when there could be an uprising or political unrest that could harm their operations. In line with the findings of Kim et al., (2009) in South Korea, it appears that coercive (political) power influences the way MNOs work in Zimbabwe.

The regulatory agencies involved in telecommunications are the Post and Telecommunications Regulatory Agency of Zimbabwe (POTRAZ), that oversees the MNOs, and the Reserve Bank of Zimbabwe (RBZ) that oversees the country's monetary policy. MNOs are unable to access foreign currency to buy infrastructure components because of policies and regulations set by RBZ. The delay by the RBZ in processing international payments to vendors influences the service. On the other hand, POTRAZ, is responsible for regulating and monitoring the operations of MNOs but applies discriminatory regulations that favour some MNOs over others. This finding is consistent with WJP (World Justice of Peace) that states that in SADC the regulatory agencies are under state control. The rule of law and separation of power are limited and as such the government easily interferes with regulatory activities.

5.2.1 Political Factors

Political factors have been found to have a major influence on the MNOs' service provision in Zimbabwe. Interviewees unanimously identified the role played by politics in the sector. Whilst research on FDI mobile telecommunications companies finds politics to be a dominant issue for these MNOs (Henisz and Zelner 2001), the findings of this thesis indicate that domestic MNOs face the same issues as FDI MNOs. The findings indicate that there is a significant influence of politics in mobile telecommunications with one interviewee stating that "the political atmosphere in the country chases away investors and that includes bribery and regulations that the investor must adhere to". Government officials, ministers for example, interfere directly with the operations of MNOs and this amounts to institutional influence (Lawrence and Suddaby, 2006) which refers to the ability of these government officers to influence the institutional environment.

Political stability is said to be determined by the availability of strong democratic norms and tenets (Mudambi and Navara 2002), but Zimbabwe lacks these norms, hence the influence of politics on MNOs in the country. Unstable governments mean unstable

policies (Luiz and Stephan 2012). Previous studies have found that the stability of the political system determined the stability of a political system. Zimbabwe's political system is not democratic and hence the inability of the telecommunications sector to attract investors. This is consistent with what is happening in Zimbabwe. Government policies are unstable, so the Zimbabwe mobile telecommunications sector is not attractive to investors. One interviewee asserted that Zimbabwe has not had a good political landscape for quite a long time and is seen as a country where conducting business is difficult. In November 2017 there were no signs of any political storm brewing in the country and yet the country experienced a coup that removed the late president from office by the military. Political stability in the country cannot be guaranteed and so new investors would not venture into an unknown political climate. This is consistent with the findings of Levy and Spiller (1994) and Henisz and Zelner (2001), who found that telecommunications infrastructure relies on the ability of the country to curb the interfering behaviour of government officials, comprising of political office holders, who make up multiple forces in politics (Scott 2014). One finding of this thesis cites the case of a politician visiting an area and ordering a network shutdown for the duration of their stay. This is an indication that politicians have the power to control the availability of network, which affects consumers. During that time consumers and businesses in the area are not connected. Meanwhile, MNOs would be losing revenue. How can they effectively operate in such a disruptive environment?

The government seems to be interfering in all aspects of the mobile telecommunications industry in Zimbabwe. Literature indicates that the development of telecommunications infrastructure depends on the quality of the country's political institutions (Andonova and Diaz-Serrano 2009). This is consistent with the findings of this research where the government is not assisting MNOs with core infrastructure needs and that is why the interviewees suggest that government should be involved. The largest expense for MNOs is infrastructure costs which in turn affects the ability of MNOs to expand their networks in other parts of the country. Hence the need for the government to provide basic infrastructure.

In Sub-Saharan Africa (SSA) sudden political disorder is common, resulting in military coups (Ufere, et al 2020). The same sentiments were echoed by Omonona, (2020). Zimbabwe saw the unanticipated removal of the former president, Robert Mugabe, in

2017. This event must have affected the services of MNOs, and any company that might have had plans to invest in mobile telecommunications in Zimbabwe would have had second thoughts after the 2017 coup. This unexpected change of power may be the reason why there have been no new entrants in the mobile telecommunications sector in the country, and the reason why SSA lags other regions in infrastructure development. This deprives the sector and consumers of better services from other MNOs especially foreign owned providers who could bring new and cheaper and better-quality services to the consumer. Omonona et al., (2020) stated that constant cabinet reshuffling is prevalent in most African countries creating further instability, and that has affected investments on the continent. Investors are not sure if they can invest in a region whose political atmosphere is unpredictable. Irregular changes in government, for example, cabinet reshuffles, sectorial and religious conflicts, political uprising, and ethnic violence are prevalent in the region. This hinders the performance of MNOs (Brunetti, et al 1998; Huang, 2015), leading to a poor service offer to the consumer.

Political interference is caused by the inadequate separation of power and responsibility between politics, policy and public administration (Mfuru et al 2018). Sutherland (2014) found that in South Africa the ANC government interfered with the running of mobile telecommunications in South Africa. This is consistent with the findings of this research in which the government of Zimbabwe is fully involved in the telecommunications sector. Researchers in SSA have found that in Africa, companies in the telecommunications sector often use improper contributions to high-ranking politicians or political parties to achieve influence (TI 2011). This is consistent with what happened with the Econet founder who was expected to pay a bribe before being granted an operating licence but refused. His refusal to pay led to a three-year legal battle before he eventually won the case. Had the proprietor agreed to pay a fine, he would have had a licence without the need to go to court. This could have changed the institutional environment through institutional innovation which suggests that organisations can proactively respond to actors who can change the institutional environment (Deephouse et al 2017). It is not known whether the Econet founder set a precedence for other investors who may have refused to pay bribes and abandoned their plans without taking the matter to court.

Political influence is used to win contracts for the roll out of mobile phone infrastructure or services (Dolan 2017). If those approached to pay bribes resist, the institutional constraint of bribes would be eliminated as the bribe seekers would fear exposure. This is consistent with Lawrence and Suddaby (2011) who found institutional works that focus on the ability of individuals to impact on the institutional environment.

The politically motivated Internet shutdowns during elections is a clear indication of political interference in the mobile telecommunications sector. This is consistent with Mare's (2020) finding of the government ordering internet shutdowns between 2016 and 2019. This negatively influences the services offered because MNOs lose business during shutdowns thereby impacting their financial sustainability and their ability to expand their network, as well as to provide satisfactory service to their consumers. MNOs would receive threats of the loss of operating licences for noncompliance.

Political institutions and behaviours still control the sector and weaken the position of the regulatory agency opening opportunities for corrupt activities within the sector. This is consistent with Sutherland (2011) who stated that the telecommunications sector rapidly became the subject of clientele politics and revenues were often siphoned off. The political situation in the country deters MNOs because policies and politics are full of surprises and reversals that are likely to deter investment. This is consistent with Brunetti et al (1998) and Huang (2015) who state that these events and behaviours may result in poor performance by MNOs and thus impact on services to consumers. Adding to the same debate, Mfuru et al., (2018) state that political interference results in abuse of power, poor service delivery, maladministration, lack of commitment, inexcusable delay and improper conduct in the organisation.

Dupasquier and Osakwe (2006) listed political instability as one of the impediments to FDI. This is consistent with what is happening in Zimbabwe's mobile telecommunications sector where the companies are all indigenous, with no foreign MNO. Service is impacted by the fact that there is not much competition, and consumers are being deprived of access to external operators who could offer innovation and a better service at reduced tariffs. Findings in this research show that if there are no reforms in the political and regulatory issues pertaining to MNOs in

Zimbabwe the status quo will continue. This thesis has found that government delays in approving tariff increases are said to be protecting the consumer, and yet in reality the government protecting its own interests. In the eyes of the consumer, the government is protecting them, and yet it is indirectly soliciting for votes from the populace during the time of elections.

5.2.2 Regulatory Factors

This research has found regulatory factors to be of influence on the service offered by MNOs in Zimbabwe. Meaningful regulation can only be achieved when there is political stability in a country. A strong regulatory agency is required to avert politicians from dictating terms to the regulators. Enforcement is undertaken by agents whose own utility functions influence outcomes (North 1990).

This research has found that there is discriminatory enforcement of regulations in favour of the government MNO. For example, the requirements for consumers to obtain SIM cards differ between the private and government MNOs. This has impacted the service to the consumer because for private MNOs' subscribers it will take longer for them to get connected. So, the private MNOs lose revenue and are unable to deliver the intended service quality to consumers. In contrast, government MNO subscribers require minimal identification and do not have to present themselves at service centres to buy SIM cards unlike private MNO subscribers.

Regulatory authorities in the telecommunications sector have a duty to protect customers and the functioning of the market and or uncompetitive pricing (TI 2014). Where regulations are inadequate, dominant companies can abuse the market and that harms customers (Blackman and Srivastava 2011). This thesis finds that tariffs are very high and that the dominant MNO, Econet, is very expensive. However, contrary to Blackman and Srivastava's (2011) finding that dominant companies abuse the market, the main problem is that the regulatory agency is inadequate. High tariffs are justified because MNOs in Zimbabwe are currently operating in a very difficult political and economic environment. The tariffs charged by Econet are determined by the economic problems faced by the country that affect the mobile telecommunications industry. High tariffs are justified by the need to remain financially viable.

Available literature states that regulatory factors in the SADC are affected by political or industry capture when they submit to external pressure from other government entities (Blackman and Srivastava 2011). This is consistent with the findings of this thesis as the government oversees the regulatory agency, and this evidences the regulatory agency's submission to external pressure from other government entities. Ineffective, politically oriented regulatory institutions like POTRAZ and RBZ can introduce poor regulation and thus lead to an increase in corruption (Peyton and Belasen 2012). This is consistent with this study that has found that there is excessive government interference in the operations and functions of the regulatory agencies. Regulatory agencies might exist, but what matters most is the quality of regulations (Torre-Castro and Lindstrom 2009). POTRAZ regulates the operations of MNOs in Zimbabwe, but the regulations tend to be discriminatory. The government itself is an MNO, and it is doubtful if the government MNO goes through the same cumbersome and lengthy process to get foreign currency from the RBZ as private MNOs.

The political interference found in this study weakens the quality of regulations and hence affects the service offered by MNOs. Consistent with Gorska (2010) regulations, instead of providing order and stability in the Zimbabwe mobile telecommunications sector, contribute to a climate of uncertainty and anxiety. That being the case, how do MNOs plan? The regulatory agency is weakened by individuals who are meant to enforce the regulations adopting unethical practices driven by private interests as investors must bribe individuals to obtain licences. The case in point here is that of the founder of Econet who was asked to pay a bribe to be issued with a licence. Had he agreed to pay, that bribe was going into the pockets of an individual, and not for the good of the sector.

In Africa regulatory systems exist but they lack regulatory effect, choice, and transactional confidence (North 1984). This is consistent with the findings of this study in which individuals within the regulatory agency solicit for bribes to grant MNOs preferential treatment. In this case, enforcement mechanisms malfunction and hence public trust is lost (Polishchuk 2012). Capricious and selective enforcement of government regulations to only benefit the regulator and differential treatment of operators in the expectation of a bribe from the entrepreneur for them to receive preferential treatment (Rasheed 1995). Contrary to this, the research finds that the

government controls the regulator and at the same time is a player in the mobile sector, giving its own MNO preferential treatment without having to pay a bribe.

Most interviewees highlighted disparities in government policies, rules, and regulations with one interviewee stating, “there are regulations that apply to private MNOs that do not apply to the government MNO”. In the enforcement of regulations, government goes by the book when it comes to the monitoring of private MNOs and the government owned can do as they please as there is no strict enforcement. Regulations are there, but enforcement of regulations is different between players. In 2011, ITU reported that 80% of countries had established National Regulatory Agencies (NRAs). However, the presence of a regulator does not guarantee a favourable business environment for further investments (Moshi et al 2017). Zimbabwe established POTRAZ in 2000 and the agency started its operations in March 2001 but there are discrepancies in the enforcement of rules and regulations and the quality and effectiveness of POTRAZ does not indicate effectiveness of the regulator.

Whilst available research found that regulatory factors were a determinant of foreign investment (Daude and Stein 2007), this study has found that the same factors also determine domestic investment. Research by Gutierrez (2003) in Latin America for example, found that regulatory factors had prevented new players from investing in the mobile telecommunications sector as the regulations that require foreign investors to cede a certain percentage of their shares to Zimbabwean nationals discourages foreign investment in the country. In addition to that it is believed that the unpredictability of law and regulations, policies and excessive regulatory burden in government instability determines foreign investment.

The same applies to Zimbabwe, the shareholding issue. Similar research conducted in the African context found that the mobile industry was dependent on regulation and liberalisation (Moshi and Mwakatumbula 2017). Contrary to Moshi and Mwakatumbula (2017) the regulatory factors in Zimbabwe negatively influence the mobile sector and at the same time, the sector is not at all liberalised. Had the country adhered to the Uruguay agreement to liberalise the telecommunications sector, the mobile sector would not be experiencing these service problems.

Whilst the negative treatment of a private MNO is likely to affect its operations and service provision, this has not been the case with Econet because this MNO has continued to outperform the most favoured government MNO, hence the hostility toward the organisation. Econet has become the backbone of the country's mobile communication. It has become the most reliable network for banks, the business sector and public sector regardless of the regulator's continued strong arm against Econet. If there is network failure for Econet in the country, all business comes to a standstill. This is because of the structure of a private MNO as opposed to government MNO. Government MNOs are affected by bureaucracy a characteristic of all government departments.

Interviewees called for the government to subsidise communication and fund communication for certain members of the society – students, the elderly, and the disabled members of our society. As the government controls MNOs through POTRAZ they should include this in the agency's rules and regulations. Interviewees have called for government to reduce its influence on POTRAZ to avoid bottlenecks and bureaucracy. The funding of infrastructure should be a government policy. A good example given by one of the interviewees was that of India where government funded infrastructure, established community centres for people who cannot afford mobile phones to access technology, and allowed the establishment of mobile phone manufacturing companies so that the local population buy mobile handsets at prices as low as US\$5.00. That way, every citizen, regardless of ability to personally maintain mobile communication, would not be left out. Since there is a lot of political interference one cannot help but conclude that the idea of India is feasible, but whoever wins the tender would have political connections as this is a norm in Zimbabwe. That is why projects fail because people that win tenders are not capable of carrying out the agreed project, but they would have won because of who they are connected to in political circles.

5.3 The Normative Pillar

This informal pillar covers MNOs' professional ways of working as mobile phone service providers. The mobile sector is driven by technology and its development, and how it works, including the stage of technological innovation, and its acceptance

by the populace. In this research the elements of the normative pillar include all those issues that affect the MNOs in their work of delivering services to the consumer. All issues pertaining to infrastructure that include the destruction and stealing of components without which there would be no connectivity. Issues like impassible routes to base stations that hinder technicians from getting to base stations to solve problems. These issues exert a great impact on MNOs as will be seen in 5.3.1; 5.3.2; 5.3.3 and 5.3.4 below.

5.3.1. Technological factors

Base stations should be a government responsibility so that MNOs just mount their masts and equipment. That way MNOs can afford to offer a good service and increase network coverage because their set-up costs are reduced. “Towers are the most expensive infrastructure component” said one respondent. Mobile technologies are referred to by ‘generation’ and when a new technology comes in, a new ‘generation’ is born. Currently, the newest generation is 5G which Zimbabwe rolled out in the two major cities, but 5G only appeals to affluent areas of the two cities. That is a problem because mobile technology must suit the entire population that it serves. This has proved to be a failure because it covers a small section of the population, the affluent. For instance, in the current economic climate of Zimbabwe only a small portion of the populace can afford the handsets/gadgets that go together with 4G or 5G technologies. Overall, this is uneconomical for the country because the introduction of a higher generation technology comes with roll out costs. The lower generation would yield larger capacity, good voice quality and accept gadgets that consume less power. This is more suitable for the electricity situation the country is currently experiencing. A higher speed generation requires expensive handsets (Curwen, 2010, Clarke, 2014). Zimbabwe mobile technology is still in its infancy and interviewees have recommended that the country maintains 3G and 2G to enable more coverage and affordability as well as a better-quality service. This confirms what was said by one respondent “.... using the small phones that do not require internet but carry voice, do work in rural areas”.

Technological factors regarding the adoption of technology indicate that Zimbabwe is not ready for 4G and 5G. Econet introduced 5G in Harare and Bulawayo, but it appears that the country is not ready for this higher generational technology. There is

no demand from consumers for these higher generational technologies as consumers only need basic communication like voice, and not speed. The findings of this study suggest that the mobile sector in the country can operate more efficiently with 2G and 3G, offering a wider coverage and an efficient service. That is why one of the interviewees stated that 4G was a luxury.

5.3.2 Scarce Electricity

All interviewees recognised the difficulty experienced by subscribers because of electricity outage and network unavailability. This research itself was tremendously affected by both electricity and network outages because sometimes you find there is electricity, but no network or vice versa. The researcher would start the interview and then suddenly, there would be no network or electricity. In addition to the general power supply experienced by everyone in Zimbabwe, mobile telecommunication is also affected by theft and vandalism of infrastructure components at base stations.

The erratic power supply was the most important emergent finding in this research. Without a stable electricity supply, mobile network is impossible to run. Power outage influences the professional delivery of services by the MNO. Staff would be there, but without electricity, they cannot perform their duties as expected. Unavailability of electricity affects the way technology works. The country is facing serious power outages and MNOs have had to use alternative ways of generating power. These solutions further increase the MNO's CAPEX. Running generators is costly as there is fuel/diesel to consider apart from the procurement of generators. This overstretches the budget of MNOs such that it affects the services they provide to the consumer, and that impacts on interruption of service, quality of service and service unavailability. This is an important area where the government should assist the sector, but it appears MNOs have handled the problems without government assistance.

Interviewees suggested that the government should assist MNOs by funding infrastructure as electricity is a nationwide problem. One interviewee explained that power outages further stretched Capex for MNOs because the batteries for power conversion have had their expected lifespan of 10 years reduced to less than two years. Replacing expensive batteries, means that some base stations would not have replacements because of the cost benefit equation and thus, coverage is further

reduced. The buying and running of diesel generators costs money, and that requires foreign currency. When the cost benefit factor is applied, low-earning stations would have to rely on commercial power only, whenever it is available. Prolonged periods of power outage mean that the consumer would lose the use of their phone after running out of power with no electricity to charge handsets. That also affects the MNOs' revenue, leading to inadequate service to the consumer.

It appears that the statutory instrument 137 of 2016 on infrastructure sharing, which became effective in 2020 and requires MNOs to share infrastructure, is not working as expected. According to the respondents, MNOs do not share infrastructure in high earning areas. That means that the struggling MNO, Telecel is not able to service those areas because the two well-funded MNOs are not willing to share infrastructure in those areas. That is why interviewees see the need for government provide infrastructure so that MNOs just mount their masts. MNOs cannot be expected to service areas where there would be no earnings, and it is fitting that government services those areas.

5.3.3 Theft and Vandalism

Theft and vandalism have been found to have an impact on the operational costs of MNOs. Thieves have been ripping out cables, draining diesel and stealing batteries, vandalising generators and thus, adding to the costs of MNOs who must replace or repair and step-up security at their base stations. Replacement of vandalised or stolen components mean that consumers will have no service until they are replaced. This affects the operations of MNOs. Consumers would regard this as bad service on the part of MNOs and yet that is caused by criminals in the community. The acquisition process is very hard for MNOs because they must obtain foreign currency to replace the stolen or vandalised items and that is a long process. Apart from influencing network availability, these acts disturb the expansion programmes that MNOs might consider, and the viability of MNOs is compromised. This forces the MNO to consider the cost-benefit, and that means for a station that does not generate enough revenue, MNOs would not replace the vandalised or stolen components. This affects network coverage in the given community.

Currently, MNOs have no support from the government. Replacing equipment is a challenge because MNOs must source funds (forex) from the RBZ. Getting forex from the RBZ is not an easy task. Interviewees have suggested that the RBZ should set aside forex for MNOs to be able to purchase infrastructure components; and that government should fund infrastructure, thus relieving MNOs of infrastructure procurement. That way, MNOs could concentrate on other tasks for the good of the mobile telecommunications sector.

Interviewees blame vandalism and theft of infrastructure components on the socio-economic situation in the country. Thieves lay their hands on anything that brings food to the table and at the same time buyers are happy to buy stolen equipment at very low prices. MNOs are then forced to prioritise replacing components in high earning sites, leaving some residents unconnected. Almost all interviewees are calling for government to play its part by providing and maintaining infrastructure at base stations. This finding is consistent with Grzymala-Busse (2010) who believes that informal institutions, (vandalism and thefts) are likely to impose their demand forcefully and violently against organisations. This act of indirect violence against MNOs influences the network coverage. The act of vandalism and theft has influenced the efficiencies and network availability levels, that is, draining of fuel from generators, stripping of generator parts. MNOs incur extra costs of replacement in both time and money, as MNOs go through a long process to be able to replace vandalised or stolen components. Applying for foreign currency from RBZ and placing orders takes time and the consumer will be disconnected for a long time. All this is not known to consumers who experience a loss of network and blame it on the MNO's inefficiency. Most interviewees feel that there is lack of government commitment and suggest that government should do more to support MNOs.

5.3.4 Road Network

This study has also found that the road network influences the service of MNOs. This is also a government responsibility. The road network in the country falls under the Ministry of Roads and Road Traffic, and that is another failure by government. Attending to faults would not take as long if the road network was well-maintained. This further affects the MNOs, and the consumer is always on the receiving end. Interviewees call for the government to do something about the road network with one

participant adding “.....there is lack of will power in whoever is supposed to champion communication, has failed to service roads leading to these areas.” According to the interviewees, rural areas are the most affected by the road infrastructure because base stations in rural areas are set up on mountain tops and building the road leading to mountain tops appears to be insurmountable for government. Interviewees unanimously agree that the government needs to prioritise its programmes and the issue of providing infrastructure should be top priority.

5.4 The Cultural-Cognitive Pillar

The cultural cognitive component is important in that it forms the foundation on which a country's formal institutions are developed (North 1990; Scott 1995; Holmes et al., 2013). For instance, when drafting laws and regulations the government must consider the cultural aspects of the country. This informal pillar (Scott 2014) addresses the actions of members of the community and the issues found within a community. Members must observe what is expected of them as members of that community. This study has found that there is corruption in the form of bribery and nepotism, within the society and that impacts on the services of mobile network operators.

5.4.1 Community Unethical Acts

Theft and vandalism have grossly affected the sector's operations. The vandalism of components (as discussed in the previous section) are societal problems, that the interviewees attributed to the socio-economic situation in the country. Institutionally, acts of vandalism and theft are criminal acts in society. These fall under informal institution because they have to do with the people's (community) way of living – that is norms and values which, according to Scott, (1995, 2005, 2014) determine what is ethical and acceptable within a society. The cultural-cognitive pillar impacts cognitive and ethical consideration that shape human judgment and behaviours which affects individuals' decision making as to what is acceptable in each society. This vandalism is better addressed with the inclusion of community leaders. (See figure 6.1)

Theft and vandalism of mobile equipment at base stations by members of the community have also been found to influence the service provision. Community leaders, who have jurisdiction over what is happening in their areas, should be involved in solving the act of theft and vandalism.

5.4.2 Corruption

Even though the interviewees were not open in addressing corruption directly it seems to be prevalent in SSA. This supports Sutherland (2007; 2011) and Uhlenbruck et al., (2006) who found that there is corruption in the awarding of licences, monitoring and regulation as well as import and export activities. This study found that licence fees and import duties are very high and that there is corruption in the sector. These costs are bound to be high because of payments to the third party. There is also likely to be bid rigging in Zimbabwe because vendors are competing to have MNOs buy infrastructural components from them.

Interviewees were also reluctant to talk about nepotism, with some saying it is present in mobile telecommunications but that it would not influence the service because those employed that way would be qualified for the jobs. However, even if a person is qualified, their treatment on the job will be different from one who is employed purely on merit. The attitude toward work of those employed nepotically would be different from those employed based on their qualifications and experience. One of the participants asserted “if you do not know anyone in the organisation, you do not get promoted, no matter how efficient you are on the job”. A good example of nepotism in telecommunications is that of South Africa, Dina Pule and the benefactor, Mr Phosane Mggibisa (TechCentral2013). Another good example of nepotism in the telecommunications sector is that of Yemen where the family of the president obtained licences on terms that were not available to others (Marks 2009). According to P1, nepotism is indeed present in Zimbabwe’s mobile sector despite participants not wanting to discuss it.

Interviewees did acknowledge the presence of bribery but just like corruption, did not elaborate. Some acts of bribery would not be obvious to onlookers because they come in different forms. In telecommunications, bribery takes the form of cash in bags and cases, money paid to offshore accounts, entertainment and gifts, facilitation of payments overseas, luxury travel, medical treatments and shares in a corporation etc. (Sutherland 2011a). These bribes would not be visible to some of the interviewees and other stakeholders as these methods are not easy to trace. Bribery is prevalent in SSA, with 51% firms claiming to have given gifts (bribes) to public officers (Ufere et

al., 2020) and 47% of firms paying bribes to win government contracts/tenders (WBES 2006 – 2010). Therefore, Zimbabwe cannot be an exception.

Overall, corruption is present in both formal and informal institutions, that is, regulative, normative, and cultural-cognitive.

5.5 Conclusion

Interviewees are all aware of the expenses incurred by the MNOs in operating their businesses. Some interviewees link high tariffs to the running costs experienced by MNOs. Ordinary consumers do not see the reason why tariffs are so high. If the government provided infrastructure at base stations that could reduce tariffs. This research shows the factors that contribute to high tariffs – customs duties, licence fees and expensive infrastructure components. All these expenses are paid for in foreign currency and yet the service provided by MNOs to consumers is paid for in local currency. In the end the MNOs have no option but to get their money back through high tariffs.

The use of dual currency and fluctuations in currency make tariffs unaffordable to many ordinary consumers. The increase in tariffs is higher than salary increases and in the end the consumer cannot afford to maintain mobile communication. The situation is exacerbated by the economic recession that the country is experiencing. The amount of data and the tariffs charged are not compatible compared to other countries, Zimbabwean tariffs are very high. Very few consumers can afford these tariffs in Zimbabwe, and this limits network coverage in the country.

Due to the costs borne by MNOs, network coverage is constrained. The inability to hire suitable and adequate staff is due to constrained budgets, and the quality of service will be affected. Businesses in the country insist on foreign currency payments and yet very few people can afford to pay in foreign currency with the rest of the population only having access to the local currency.

Delays in authorising tariff increases lays an extra burden on the consumer because MNOs, in anticipation of higher costs, will come up with a premium price and that affects consumers because the actual tariff might even be lower than the premium MNOs charged. The other problem is that MNOs borrow foreign currency and yet

services are paid for in local currency. With fluctuations of currency in Zimbabwe, this ends up affecting consumers who cannot afford to pay and that lowers revenue for MNOs and hence, service to the consumer is impacted.

There is a need for government to revisit the regulatory policy, consider a reduction of licence fees, customs duties, and award tax relief for certain infrastructural components as these affect MNOs' working capital and as such, these impact on the service provided. Government intervention would in turn help the viability of MNOs, reduce tariffs, and improve coverage. The use of dual currency does not make sense because MNOs services are paid for in local currency and yet all their expenses are paid in foreign currency. Interviewees suggest that the RBZ should prioritise MNOs to help them to meet their international payments timeously.

The marketing channels for airtime in the country are outdated and these tend to be an added expense for the MNO. Roadside vendors sell airtime instead of it being sold online, which is a saving on overhead costs. These savings would in turn lower operational costs.

5.6 Conceptual Framework for the Thesis

The discussion in the previous section was based on the literature reviewed in chapter 2. This discussion, when presented in the form of the revised conceptual framework, figure 5.1, is now quite different from the proposed conceptual framework in chapter 2, (figure 3.1) as this one addresses the research findings, that is, the factors that have been found to influence the specific case of the MNOs' service in Zimbabwe.

Politics is one of the most prominent factors influencing the service of MNOs in Zimbabwe. Politicians and government officers, licences, customs duties, regulations and difficulties met by MNOs in obtaining forex have all been found to influence mobile services in Zimbabwe. The regulative pillar, whose institutions monitor the operations of MNOs (DiMaggio and Powell 1983; Scott 2014) has been found to have discrepancies especially in the regulatory enforcement and seems to be lacking in almost all aspects of a good regulatory pillar. The uncertain political atmosphere that prevails in SSA has negative influence on telecommunications investment. This includes frequent cabinet reshuffles with incoming ministers having different agendas

from their predecessors. The region is also known for coups like the one that happened in Zimbabwe in November 2017.

The regulatory agencies involved, POTRAZ (mobile telecommunications) and the RBZ (monetary) influence the operations of MNOs, and that influence impacts unfavourably (DiMaggio and Powell 1983; Daude and Stein, 2007; Scott, 2014) on the MNO's service provision. In the case of Zimbabwe, some regulations discourage investors, and lead to a lack of competition in the mobile telecommunications sector. MNOs fail to get easy access to the much-needed foreign currency for infrastructural components because of policies and regulations set by RBZ. The delay in processing international payments to MNOs' vendors influences the service. On the other hand, POTRAZ decides on tariffs that favour the government and not private MNOs.

The normative institution has been found to have elements that influence the services of MNOs to consumers, and that includes the state of technological development. This research has found that Zimbabwe is behind in technological development. The country is in recession and even though the market leading MNO, Econet, is ready to roll out 5G, which, so far is the highest generational technology, that is uneconomical for now. This technology comes with costs of deploying the network, capacity, service offering and data transfer speed and would need advanced receivers (smartphones) that currently most ordinary consumers in the country cannot afford. That means, there is no market demand for higher technology now and it does not make economic sense for Econet to deploy 5G.

The country is better maintaining lower generations, 2G and 3G which offer better voice quality and lower power consumption. It is not feasible for the country to maintain a higher generation given the issues faced by the country as described in the findings of this study. The higher the technological generation, the higher the cost and more power consumption and that shows that the country is currently not ready for that. The findings suggest that the mobile sector can operate more efficiently with 2G and 3G, and at the same time, offer a wider coverage and efficient service. That is savings on the part of the MNO who does not have to spend on the expensive laying down of higher generational technology. The consumer does not have to buy an expensive gadget that goes with the higher generational technology, 4G or 5G.

The cultural-cognitive pillar has been found to contain elements that influence the services of MNOs. Corruption in the form of bribery and nepotism were found to be present in the sector, influencing the service. Theft and vandalism of mobile equipment at base stations by members of the community have been found to be influencing the service provision by MNOs. Therefore, this pillar has been found to influence the service provided by MNOs in Zimbabwe. Community leaders should be involved in addressing the acts of theft and vandalism in their areas of jurisdiction. The way they deal with this would influence this informal pillar as informal institutions are the basis of formal institutions. The actions of members of the community amount to institutional works that focuses on the ability of individuals to impact on the institutional environment. Vandalism and theft by members of the community is a challenge to the service offered by MNOs in the community. Formal institutions would then come up with ways of combating this through regulations or policies to help remedy the problems.

5.7 Theoretical contribution

This thesis makes essential theoretical contributions to institutional theory. Within the operational environment of MNOs in Zimbabwe are considerations to be made in relation to political, regulatory, formal and informal factors that includes cultural factors and corruption factors. These are essentials for MNOs if they are to provide satisfactory service to consumers. This study adds to the contributions of Daude and Stein, 2007; Collins and Uhlenbruck, 2004; Henisz and Zelner, 2001; Hofstede, G., (2001); Holmes Jr. et al., (2013).

The thesis draws attention to the relevance of institution factors influencing the service of MNOs in the context of an African developing country, Zimbabwe. The influencing factors include politicians, poor implementation of regulations, restrictive laws governing foreign exchange to pay international vendors by the Reserve Bank of Zimbabwe (RBZ). Besides all this, there is the community and infrastructural challenges (theft and vandalism) that have been found to be influencing the service provided by MNOs.

This thesis also advances understanding of political, regulatory, corruption and cultural factors influence the service provided by MNOs in Zimbabwe. The extant studies

indicate that the political institution interferes with the provision of services (Henisz and Zelner, 2001; Guler and Guillen, 2010; Nielsen et al., 2017). The thesis also contributes to studies indicating that political institutions in the form of politicians influence the service through coercive power.

The findings of this thesis contribute to existing literature on corruption in the two forms, bribery and nepotism. The elements of the Conceptual Framework, figure 5 – 1 are an addition to the literature as discussed under each element.

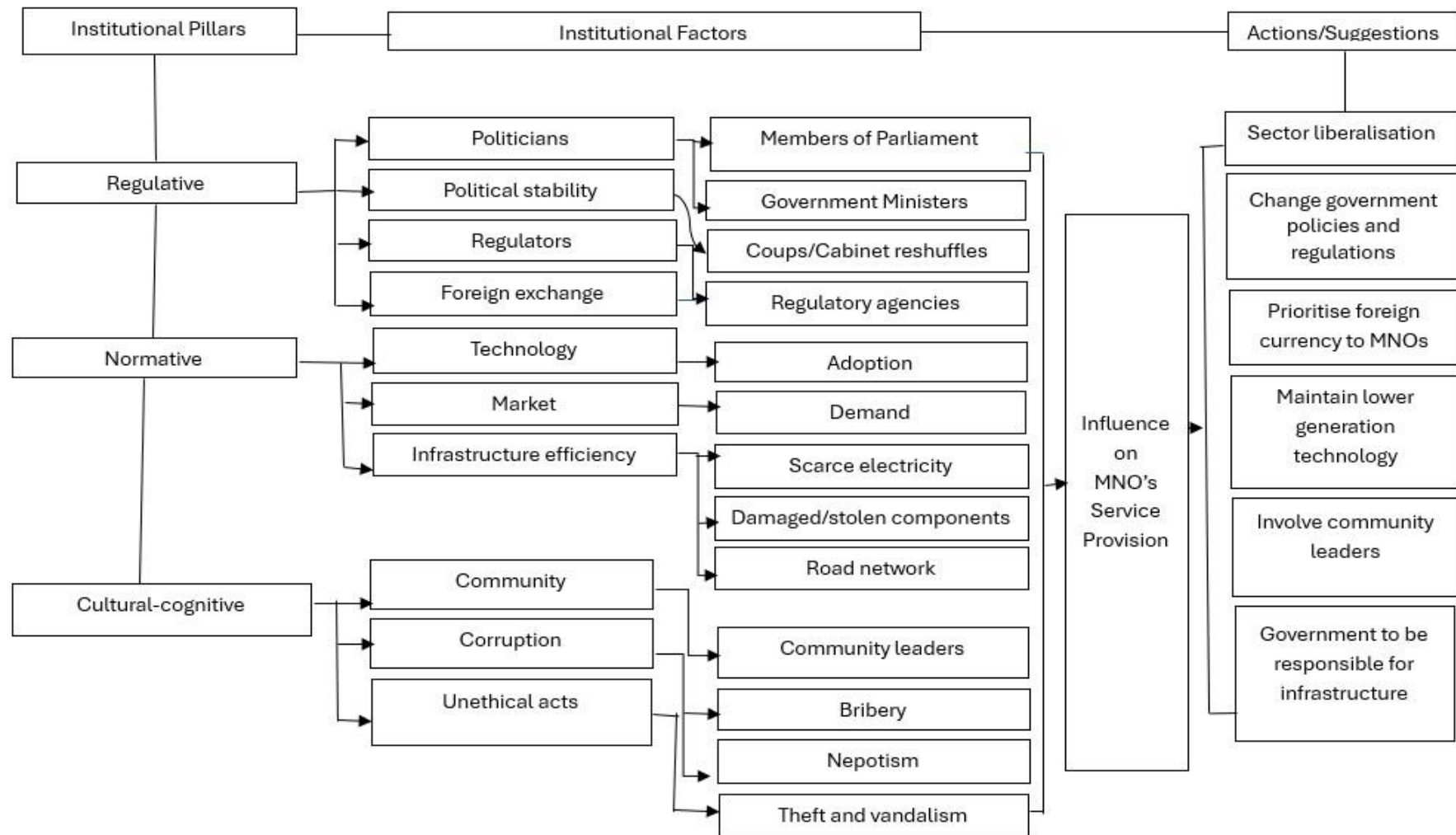


Figure 5.1 Thesis conceptual framework

Source: Author

5.8 Summary of the Discussion Chapter

In this chapter, findings were juxtaposed with the literature reviewed in chapter 2. The findings of this thesis have been discussed.

Previous studies have concerned themselves with FDI MNOs and institutional theory. The findings of this study indicate that domestic MNOs are also influenced by the same institutional factors. This contributes to the studies on institutional factors (Henisz and Zelner, 2001; Daude and Stein, 2007; Newenham-Kahindi 2009; Newham-Kahindi and Stevens 2017).

The study adds to the extant literature emphasising the influence of institutional factors on the services provided by domestic using MNOs in Zimbabwe. There is evidence that Zimbabwe's mobile telecommunications industry is influenced by various factors, ranging from the inability of the mobile sector to expand its network coverage to keep up with technological developments and to attract more investors. The study has found that politicians, political stability, economic climate (recession), monetary policy, members of the community, corruption and infrastructural challenges influence the services offered by MNOs in the country. Figure 5.1, the conceptual framework, focuses on how the identified institutional factors influence the service of MNOs in Zimbabwe.

The next chapter concludes the study and ends with the theoretical contribution of this thesis.

Chapter 6 Conclusion

This thesis investigated the institutional factors that influence the service provided by MNOs in Zimbabwe. Previous studies concerned themselves with FDI mobile telecommunications firms and not much was known about local/domestic mobile telecommunications firms. Other researchers were interested in the perceptions of mobile network subscribers (consumers) about the level and quality of service they received from the MNOs and their assessment of the service they received. This study addresses issues relating to local mobile telecommunications firms to understand the reasons why there are service problems in the sector, and to provide recommendations to solve these service problems. This study, therefore, fills a gap that was left by previous researchers who measured customer satisfaction levels, but did not consider the reasons behind these outcomes.

Using Scott's (1995, 2008) three pillars of regulative, normative and cultural-cognitive institutions, this study explores the influences on the service provision of MNOs in Zimbabwe. The literature reviewed in Chapter 2 explored previous studies relevant to the current study. The literature was reviewed, and research gaps were identified, research questions were formulated, and a working theoretical framework was drawn up to guide the investigation (figure 2.1). Propositions for the study questions were drawn up, and these framed the data collection, and finally, the analysis of data. Thirteen in-depth virtual interviews were conducted with serving and past MNOs' informants and civic leaders. Archival documents from ITU, GSMA POTRAZ and newspapers were consulted to help triangulate data from the interviews. Challenges arose in obtaining responses, owing to several factors representative of the issues being investigated.

The research approach taken was that of a qualitative case study. The study generated its findings by using Braun and Clark; (2006, 2022) thematic analysis. MS word was used to analyse data, and the coding of themes was framed according to the propositions set out in Chapter 2, and the findings were structured according to these propositions. Data was then presented in the findings chapter, quoting the comments as presented by interviewees to support or refute the propositions. Figure 6.1 summarises this thesis and the findings.

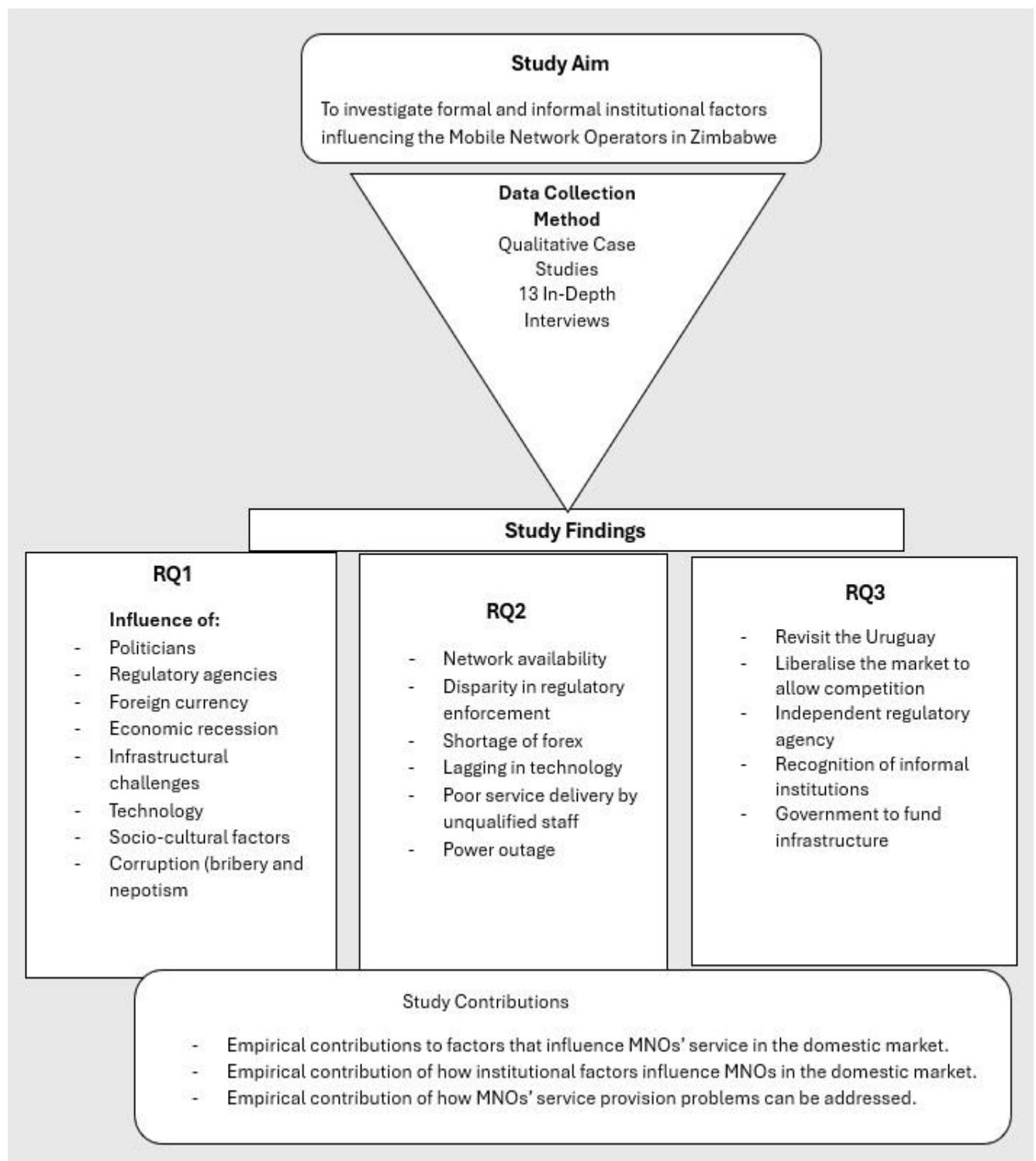


Figure 6.1 Thesis summary

Source: Author

6.1 Summary of main findings

The next section, 6.1.1 presents the institutional factors that influence the service provision of MNOs in Zimbabwe. Section 6.1.2 details how the identified factors influence the service provision of MNOs. Lastly, 6.1.3 presents mitigation measures to address service problems experienced by MNOs.

6.1.1 Institutional factors that influence the service provided by MNOs in Zimbabwe

This research has found evidence that institutional factors influence the service provided by MNOs in Zimbabwe. Prominent among these factors are the influences of government through politicians, and regulations via POTRAZ and the RBZ. Politicians have been found to order the shutting down of the network as and when they feel like, especially when they visit an area, that area should be without communication.

The research has also found that there is disparity in the enforcement of regulations on MNOs in favour of the government-owned MNO over the privately owned MNOs. High costs of operating licences and heavy import duties levied on imported components have impacted the MNOs operations. At the same time POTRAZ delays the approval of new tariffs and thus, impacts on the service offering of MNOs. MNOs are forced to come up with a premium tariff in anticipation of the confirmation by POTRAZ.

There is a challenge of power outages caused by the country's energy supplier, ZESA. This erratic power supply has impacted the operations of MNOs in the country. In line with the supply of power this study has also found unethical behaviour by some members of the community in the country. Some people in the community have been vandalising and stealing infrastructure components, batteries, generators and draining diesel for resale on the black market.

The country is in recession and that is not conducive to MNOs' business. The country uses a dual currency system and that has further complicated the operations of MNOs. The study has also found evidence of corruption in the form of bribery and nepotism.

Technological development in the country is lagging, and as such it is impossible for the country to install higher grade technologies, 4G and 5G, as these have been found unsustainable, in view of the economic hardship the country is currently facing.

These factors contribute to our understanding of institutions that influence the service of MNOs in Zimbabwe and therefore answer **RQ1** of the thesis.

6.1.2 The Influence of identified factors on the service

Politicians, the formal institutional actors, have been found to have (coercive) power to order the shutting down of networks which MNOs must comply with. Failure to comply with such orders could result in the cancellation of their operating licence. Such power held by government actors opens, in some instances, room for bribery wherein representatives of MNOs could pay bribes to politicians to prevent the politician from taking some action.

Regulatory disparity in the enforcement of regulations has seen the government-owned MNO getting preferential treatment in the enforcement of regulations, with private MNOs being closely monitored while the government MNO gets away with a lot. Having preferential treatment for the government MNO does not guarantee a good service from the MNO. This disparity in regulatory enforcement discourages private MNOs' operations and impacts their service provision as well as their revenue.

The impact of high licence fees and heavy customs duties paid by MNOs has been found to have an impact on the services provided by MNOs in Zimbabwe. High licence fees and heavy customs duties on imported components influences the tariffs charged and hence the service to the consumer is affected because fewer consumers can afford high tariffs. At the same time, fewer subscribers mean less revenue for MNOs. Low revenue to MNOs affects the service to the consumer because MNOs cannot offer the service that costs higher than their revenue. They cannot work harder for less.

The delay by POTRAZ to approve new tariffs has led MNOs to charge a premium tariff whilst awaiting POTRAZ approval. Sometimes this premium tariff would be higher than what POTRAZ would approve. This places an unnecessary financial burden on the consumers who must pay the high tariffs set by MNOs. Consumers who are unable

to pay the premium tariff are a disadvantage to the MNO because that influences their revenue.

The country is also facing a shortage of power to run the networks leading to additional operating costs. The country uses hydro power and water levels at source are very low leading to load shedding which has affected the MNOs' ability to maintain networks. MNOs have resorted to using additional expensive ways of generating power, for example, diesel generators.

Power outages have adversely influenced the services provided by MNOs in the country. They have reduced the lifetime of batteries used by MNOs for power conversion because there would be no power to convert from Zimbabwe Electricity Supply Authority (ZESA). That means the only available power is from the batteries and that means the batteries are working beyond the time they are expected to work.

The unethical behaviour by some community members in the country has cost MNOs huge sums of money on vandalised or stolen components at base stations. The behaviour of these criminals shows a lack of respect for the norms and values of society, in terms of what is right or wrong in society, encompassing the normative and cultural-cognitive dimension of the institution (North, 1990; Scott, 1995, 2014). MNOs have continuously replaced the stolen or vandalised components and during that time subscribers will have no network for that period. Replacing these components takes time and comes at a high cost for the MNOs who must spend a lot of money replacing the vandalised or stolen items. These components are imported, and foreign currency must be sourced, thus adding to the period the consumers/subscribers of the vandalised base stations must wait before service is restored.

The country is in recession, and this is not conducive to business. This has affected almost all industries and mobile telecommunications is no exception. The country uses dual currency, the Zimbabwe dollar (Z\$) and the United States Dollar (US\$) and that, already, is a mismatch. The MNOs services are paid for in local Z\$ and converting that to import components is a long process and the rate of exchange fluctuations affect MNOs who must convert the local currency into US\$. Getting clearance from RBZ for MNOs to buy components takes time and meanwhile the service to subscribers is affected. By the time these components arrive, and because of the rate

of inflation in the country, prices would have escalated, thus influencing the type of service MNOs provide to the consumer/subscriber.

The prevailing economic situation means that higher generational technologies are currently not sustainable in Zimbabwe. MNOs might have the money to roll out higher technology but sustaining it would be difficult since for most consumers, accessing the service would be impossible because they cannot afford the mobile gadgets that go with higher technology. Network expansion in the country has been impacted by the recession.

This study has found evidence of corruption in the form of bribery and nepotism. Firstly, infrastructural component vendors compete to have MNOs buy from them and that creates room for bribery. That would affect the service in that the components purchased from the bribing vendor might not be of good quality, and that would compromise the service provided to the consumer.

Nepotism has been found to be present in the hiring and promoting of staff. Staff are recruited according to who they know in the organisation and that is the same in staff appraisals. It has been found that staff are employed according to who they know and, in most cases, might not be competent enough to serve consumers. The same staff would also be promoted to higher positions because of who they know in the organisation. Meanwhile, those who have been hired based on merit do not get promoted regardless of their high performance. Such employees get discouraged and will not serve the consumers the way they would if the conditions of hiring and promoting were fair.

This section has answered **RQ2** of this research.

6.1.3 How the Influence of Service Problems can be addressed

The above factors have further enhanced our understanding of the influence of institutional factors in a developing country in SSA.

The government of Zimbabwe needs to revisit the Uruguay agreement as a reminder. The focus of the Uruguay Round was the liberalisation of the telecommunications sector. This research has found that Zimbabwe has not liberalised the sector. If the sector were liberalised, some current service problems would not be there. Liberalisation of the sector would help rid the sector of most problems found by this

study and encourage more investors, including FDI. Government needs to ease the prohibitive requirements for foreign investors wishing to participate in the country's mobile telecommunications sector.

Government, through its agency RBZ, needs to revisit its monetary policy. MNOs provide an essential service to the country and must have easy access to foreign currency because without that communication in the country would be paralysed. The RBZ should, therefore, prioritise MNOs in the allocation of foreign currency.

There is more emphasis on formal institutions of the regulative pillar, and it appears that the informal institutions work against the formal institutions, for example, vandalism and theft of infrastructural components by community members. Formal and informal institutions need to work together to foster stability (Scott, 2014; Grzymala-Busse, 2010).

Vandalisation and theft of infrastructural components would be solved if government took full responsibility of setting up base stations so that MNOs only bring in their masts to mount. Government has capacity to deploy law enforcement agencies, the police and the army. That would help normalise the availability of the networks; MNOs' expenses would be reduced, because setting up base stations is MNOs' major expense. That would allow MNOs to concentrate on serving their customers/subscribers, and thus, improve the service they provide.

The above section answers research **RQ3**.

6.2 Theoretical Contribution

This thesis contributes to theory. Generally, existing studies have paid more attention to issues affecting FDI MNOs and investments decisions, for example, what motivates or constrains an entry decision. However, little is known about the same institutional factors influencing MNOs in the domestic market. Both FDI and domestic MNOs work in the same political, regulatory, infrastructural, corrupt and cultural environment. This thesis contributes to existing knowledge by focusing on domestic MNOs, in a developing country, in the African context with reference to Zimbabwe. The study contributes to the extant literature that suggests that political factors influence the services of any organisation and MNOs in Zimbabwe are not an exception (Omonona et al., 2020). This thesis confirms the work of Brunetti et al., (1988) and Huang, (2015),

Pellegrini and Gerlagh (2008) who found that political instability may destabilise business.

The thesis builds on extant studies by drawing on the relevance of institutional factors including the role played by politics, regulations, the market, corruption and cultural factors. Through a case study focused on mobile telecommunications in an African market it provides a further contextualisation of the institutional framework, illustrating the different emphasis placed on different factors found in this context. Contributing to Blackman and Srivastava (2011) view that in SSA regulatory factors are affected by political or industry capture when they submit to external pressure from government.

In support of Dupasquier and Osakwe (2006) who found that political instability is an impediment to FDI in Africa this study found that political instability not only influences FDI firms but also influences firms operating in the domestic market and thus contributes to the role of politics in influencing the services of domestic mobile network operators.

The findings of this thesis also contribute to previous literature on corruption Collins and Uhlenbruck (2004). This study found that corruption is present in the mobile telecommunications sector, but interviewees did not want to elaborate. In SSA, research by Sutherland (2011, 2012, 2014, 2017) in several African countries, Nigeria, South Africa etc has revealed corruption both through bribery and nepotism in the telecommunications sector. There is a need for more research in this sector so that there is a wider picture on the subject.

6.4 Practical Implications of the study

The thesis provides practical implications for the MNO managers, regulators and policy makers in Zimbabwe's mobile telecommunications sector. The empirical evidence of this thesis shows that the Post and Regulatory Agency of Zimbabwe (POTRAZ) Act of 2001 requires revisiting and amending as appropriate, in accordance with the changing times of this digital era. A lot has changed since the inception of the Act in 2001, and amendments should be made in accordance with the prevailing situation in the industry. The problems found by this thesis call for the regulatory bodies to make reforms in the sector. For instance, the regulators should note that formal and informal institutions coexist but influencing independent of each other since their

objectives differ. Regulators should keep up to date with the environment, revisit the regulations to make sure that they are in line with the prevailing situation.

Policy makers should re-examine their policies and compare with other SADC member states. Table 1.1 shows that Zimbabwe has the most expensive mobile telecommunications sector. This calls for policy makers to revisit to alleviate the difficulties experienced by the consumers and address the digital gap. It is important for the policy makers to benchmark with neighbouring countries whose prices per GB are lower. If the situation remains the same, a large part of the population will remain unconnected for a long time.

Policymakers

Policy makers in Zimbabwe should revisit the policy that foreign entrepreneur should cede 51% of their shareholding to indigenous players. This has robbed consumers of more providers who could bring in competition that would ultimately lower the prices. Telecel Zimbabwe was previously owned by a foreign entrepreneur, but because of the shareholding policy on foreign entrepreneurs, the original owner had to leave (Magaisa, 2015).

Policy makers in Zimbabwe should stay abreast of the developments in the industry in SSA especially in the SADC region. That way, they might come up with policies and regulations that fit in with the prevailing situation. In the case of Zimbabwe, where MNOs lose revenue to theft, electricity outage, vandalism and theft, policy makers should consider these situations when crafting their policies.

Currently, in the SADC, Zimbabwe has the highest tariff charge per 1GB of data, US\$43.75, followed by Zambia at 1GB US\$8.01, and the lowest in SADC being Malawi, with 1GB at US\$0.38. Policy makers need to benchmark with their SADC counterparts. This could relieve the citizens from the high charges of data. Easing entry requirements for prospective foreign MNOs could help the citizens because that would bring in more competition resulting in lower prices and a better quality of service.

The issue of citizens who cannot access mobile telecommunication, that needs to be considered as priority when policies and regulations are being revised so that no one is left out in mobile communication. The problem of accessing foreign currency to pay

international vendors needs to be addressed because that influences the services provided by MNOs. It also spoils the relationship between the MNOs and their international vendors when payment is not made on time. Ultimately all that influences the services offered by the MNOs.

Most Zimbabwean citizens only have access to local currency. Policy makers need to revise the monetary issue because there is a problem. MNOs' services are paid in local currency, and yet MNOs are expected to pay for licences in foreign currency. Converting that local into foreign currency is a long process for the MNOs. Policy makers need to address this. MNOs pay for their operating licences in foreign currency, and that is scarce in Zimbabwe. The situation in Zimbabwe is exacerbated by the fact that the policy maker is also a regulator.

Policy makers should also consider the economic contribution the the mobile telecommunications sector brings into the country and address policies that affect economic contribution.

This study has found that formal and informal institutions co-exist but that their influence is independent of one another. This study suggests that policy makers revisit this because only formal institutions were considered in policymaking and yet they too play a role in mobile telecommunications. For instance, this research finds that informal institutions, communities, and infrastructural challenges undermine their activities (Grzymala-Buse, 2010; Michalopoulos and Papasniou, 2015). This study recommends that the telecommunications recognise informal institutions and include these when they formulate telecommunications regulations.

MNO managers should stay up to date with changes in the sector's regulatory system and the political climate in the country. They should also be aware that institutions are not static but are forever evolving (Scott, 2014). Changes in government, legislation, and cabinet are likely to influence the workings of MNOs and managers should not be taken by surprise. Managers should keep abreast of any regulatory, political and sectorial changes in telecommunications to avoid being taken by surprise. MNOs must also pay attention to informal institutions, for instance, communities and the challenges of infrastructure in the country which might undermine their work in their respective roles (North, 1990; Helmke and Levitsky, 2004; and Grzymala-Busse, 2010). Informal

institutions can make or break the telecommunications sector, so it is important that MNO management is aware of the impact that these informal institutions can exert on the mobile telecommunications sector. For instance, the issue of vandalism, theft and bribery. The Zimbabwe MNOs should benchmark with their SADC counterparts to compare and discover where they might be failing.

MNO managers should be aware of both formal and informal institutions in the African context. Previous research on mobile telecommunications has focused on universal factors that are found worldwide. The African context is different from other contexts as the continent has more diverse cultural factors to consider than, say, Europe.

6.5 Limitations to the study and suggestions for future research

Firstly, the study could have benefited from a larger sample, and from the direct participation of the management of the three Zimbabwean MNOs. Whilst a combination of MNOs' informants and civic society gives a rich and a varied understanding from a providers and outsiders point of view, more could have been gained by having on board management of the three MNOs. Although this was the intention and various attempts to engage were made, ultimately, they declined. There is a need to seek the views of the community on what is happening in their areas and encourage them to give suggestions for the future.

The study also has some limitations pertaining to the use of only one theory, institutional theory, to understand the factors influencing the service offered by MNOs. It is recommended that future research adopt other theories.

This research separately looked at formal and informal factors working as separate entities and yet they must be seen as equally contributing to the body of knowledge. There are linkages and relationships between the two which should not be ignored because of simplified classification issues. Future studies should give equal weighting to formal and informal factors as their presence and function are equally important.

The study has found that Zimbabwe's telecommunications sector has not been liberalised. There is a need for a future comparative study with one of the countries in the SADC that has liberalised the telecommunications sector. Comparing the results

would help regulatory authorities see where they might improve. For instance, Zambia and Mozambique, the two countries in the SADC that have the lowest mobile tariffs and have stood out in SADC comparative studies. The Zimbabwe mobile sector could investigate what these two countries are doing that Zimbabwe is not doing. The Zimbabwe mobile telecommunications sector could benchmark with other SADC or COMESA member states and learn from them what could work for the country's mobile communications sector in terms of quality of service, network coverage, and tariffs that all interviewees were concerned about.

Zimbabwe has not implemented any of the suggestions of the Uruguay Round of 1997. Governments were encouraged to minimise their involvement in the sector, but Zimbabwe, it appears, has intensified its grip on the sector. The treatment of private MNO's shows that private investors are not welcome in the race. This explains why there has not been foreign investors, and no new entrants 27 years after the sector liberalisation. Some countries allowed competition in 1998, after the Uruguay Round. These countries included Uganda, a developing country in Africa. The question is, why is Zimbabwe not liberalising the sector? Some countries have even privatised the national fixed lines. In 1995, fifty countries had privatised national fixed lines, and that number went up to 150 countries in 2006 (Djiofack-Zebaze and Keck (2009). The question to be asked is, "why is Zimbabwe not among those?"

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Appendix B
MNOs INTERVIEW GUIDE

Time of Interview:

Date:

Medium: via

Interviewer: Researcher

Interviewee:

ID Code:

Interviewee Category: MNO representative

Opening: Thank you for agreeing to participate in this study. I assure you that all information discussed here will be strictly confidential in line with the ethical consent form you completed.

Re-introduction of both participant and researcher before the interview begins.

May I switch on the recorder please...?

MAIN QUESTION (Each case is asked)

What are the factors that you think influence the service of your mobile firm in Zimbabwe?

How do these factors influence the service you provide to subscribers?

REGULATIVE Pillar

Regulatory Agencies

Probing questions:

- i) How do regulatory agencies influence the service your organisation provides to subscribers?
- ii) Why do you think regulatory agencies influence the service provided by your firm?
- iii) What aspects of the service provision to subscribers do these regulatory agencies influence?
- iv) What is your company's stance on the regulatory agencies' influence?

REGULATIVE Pillar

Infrastructural factors

Probing questions:

- i) What infrastructural factors influence the service your firm offers to subscribers?
- ii) Why do you think infrastructural factors influence the service your firm provides to subscribers?
- iii) What part of the service provision is influenced by infrastructural factors?
- iv) What has your firm done about these infrastructural factors?

REGULATIVE Pillar Political stability

Probing questions:

- i) How does political stability influence the service you offer to your subscribers?
- ii) Give reasons why you think that these factors influence the service you offer?
- iii) If your firm has experienced that influence, how has the organization responded to that?

CULTURAL-COGNITIVE Pillar

Ethnicity/Tribe

Probing questions:

- i) What ethnic or tribal factors influence the service offered by MNOs to subscribers?
- ii) Why do you think ethnicity and tribe influence the service provided by MNOs?
- iii) How do ethnicity and tribe influence the service provided by MNOs?
- iv) What role does your company play in socio-cultural factors?

NORMATIVE Pillar

Corruption

Research has indicated that telecommunications is flooded with corruption.

What are your views on: **A:**

- i) Corruption in the form of bribery
- ii) Why do you think there is bribery in mobile telecommunications?
- iii) What part of the service does bribery influence?
- iv) What is your organisation's stance on bribery?

What are your views on: **B:**

- i) Corruption in the form of nepotism
- ii) Why do you think there is nepotism in mobile telecommunications?
- iii) What part of the service does nepotism influence?
- iv) What is your organisation's stance on bribery?

Are there any comments or additions that you would like to add on factors influencing the service offered by your company in the country?

Closing: Thank you for your time. May I reassure you of the protection and confidentiality of all data you provided. Would you like to read the transcripts of this interview? Please let me know how these could be best sent to you.

Appendix C: Civic Society Interview Guide

B) INTERVIEW GUIDE

Time of Interview

Date:

Medium: Skype, MS Teams; Other

Interviewer: Researcher

ID Code:

Interviewee Category: Civic Society.....

Opening: Thank you for your participation in this study. I assure you that all information discussed here will be strictly confidential in line with the ethical consent that you completed.

Re-introduction of researcher and civic leader before the start of interview.

May I switch on the recorder please...?

Q1. What are your views on the service offered by MNOs to subscribers in the country?

Q2. Do you agree that mobile network coverage in the country is limited?

- What are your suggestions?
- What/who do you think is the cause for all this?
- What suggestions do you have pertaining to mobile phone network coverage?
- Do you think MNOs need encouragement regarding the expansion of their mobile coverage?

Q3. Do you have anything to say about the infrastructure of mobile telecommunications in the country?

Q4. What are your views on mobile phone charges in the country?

- Research on mobile telecommunications shows Zimbabwe as one of the countries with the highest mobile phone tariffs, do you agree with that?
- What do you think of the high tariffs for mobile services?
- What do you suggest could be done to reduce tariffs on mobile telecommunication in the country?

Q5. What are your views on the quality of service offered by MNOs in the country?

- Research has found that the quality of service offered by MNOs to consumers is very poor. Do you agree with that? Please explain.
- What do you think should be done to improve the MNO's quality of service?

Q6. Do you have any insights as to how different stakeholders, that is, civic society, regulators and policy makers, could possibly work together to improve the mobile telecommunications service in the country?

Questions 1 to 6: ASK PROBING QUESTIONS ON WHETHER THERE ARE REGULATORY, POLITICAL, INFRASTRUCTURAL, ETHNIC/TRIBE AND FORMATIVE FACTORS AT PLAY.

Q7. Do you have any additions, comments that you would like to make regarding the mobile service offered by MNOs in Zimbabwe?

Closing the Interview

Thank you for your time and cooperation. I once again assure you that your data protection and confidentiality is of utmost importance and the data you have given will not be shared without your consent. Can I send transcripts of our conversation to ensure proper representation of your thoughts?

Appendix D: Transcribed Interview

Participant 11

Date: 18 August 2023

Time: 1800 hrs

Medium: MS Teams

In your own opinion, what would you say about the services offered by MNOs in Zimbabwe?

Zimbabwe being a developing country MNOs are doing quite well for their status, but more must be done by the government to support these companies, especially on regulatory issues. There are more bottle necks in regulation. So, we would prefer that the government does more to support these players.

The network is good, but it does not cover most of the areas in the country owing to the challenges that individual companies have to erect their own masts. The three MNOs must put up their own masts in the same mountain or high area and so goes on the play. So, this would mean that those companies that do not have capacity cannot. A company that has a low network but has got money can always have a monopoly in that area. Generally, network coverage is good in cities but poor in the countryside/rural areas. Sometimes the network is not that strong in the cities as well. They need to upgrade, and it could be because of inflation that the income that these companies get means that they are not able to buy more or make upgrades. I think firstly there is need for government support and secondly, the Reserve Bank of Zimbabwe (RBZ) itself should have money/loans allocated to these network companies, remember they are serving the public, inasmuch as they are private, they have interest in serving the public because if we connect rural areas to those people in the cities, that means everyone is involved economically and socially and even Healthwise to the country so I believe that government needs to support – give them loans, cheap loans actually.

Infrastructure

Infrastructure for these MNOs is not huge save for the one that is a market leader and the government owned one. What they do is put up masts, so technology is very destructive. In a large area they just put up a mast that is going to cover that area and that means they do not have to incur capital expenses – they do not have to put up buildings because maybe everything is being managed from their HQ. They have very

little capital layout in rural areas. When it comes to structures like buildings, MNOs normally do not take seriously investing in land and bricks. All that they do is just go and buy a small piece of land or rent it in a house where they mount their booster, and they are done with that and there is no benefit to society besides networking.

Tariffs

Mostly ordinary people cannot afford to make calls because they are expensive because of the *per second* billing. The charges are exorbitant for ordinary people because they cannot afford, especially the poor masses, and remember these are developing countries and a few people are working and now technology has taken over everything. You do everything on the phone, you want to buy anything that is on your phone, internet is on your phone. So, the mobile charges then are very expensive, especially now that it is the way of life and inflation has also made it impossible for people in poor countries because fewer people are working and now technology has taken over everything that one wants to do, you do it on your phone; you want to buy things you do it on your phone; you want internet you do it on your phone. Mobile charges are very expensive, especially now that it is a way of life and inflation has also made it impossible for people to call each other but help has come in by way of Voice over Internet Protocol (VoIP) that allows you to make voice calls using a broadband Internet connection instead of a regular (analog) phone line. These applications now, if you use data, you can circumvent conventional calls. These are also expensive at the end of the day, and I think the product used to penetrate the market but it's suffering now, the decline stage of its life cycle.

To reduce the tariffs, I think the government itself should levy less taxes on MNOs. The government is exorbitantly charging them. So, they have no option but to levy the same amount to customers who at the end of the day bear these costs. The government needs to look at that and see that they reduce the prices – what they charge MNOs. I think the government must support the installation of fibre optics because fibre optics help reduce calling costs. Like now, I can call abroad on VoIP, there is no need for me to call on conventional calls. I do not need a SIM card; it is just a host.

The quality of service is good for some MNOs and bad for others. The market leading MNO has excellent quality of service owing to its private structure compared to the struggling MNO which at one point had government intervention. The government-run MNO is quite good, but the challenge is that whatever is managed by the state always

has some bottlenecks and there are challenges of how competent they can be, they are not as innovative as the privately owned MNO.

Quality of Service

Do you agree that the service offered by MNOs is poor?

Yes, it is very poor because the industry in Zimbabwe is very uncompetitive. There is not much competition. It is mostly the market leader and sometimes the government owned. The state-owned is a quasi-government entity, they try to support it, but they are failing to run it properly because the government structure negates good service.

Mitigation

What do you think should be done to improve the service?

Let the market be free so that new players can come in. More competition would mean there is more innovation, there is more creativity and the price of calls, and data would go down because people are all vying for the same market, so they tend to reduce their prices so that they become attractive to consumers.

Regulatory

The government of Zimbabwe is extremely strict when it comes to MNOs, hence you find that most of them are not very much concerned about development. They are after taking money and they do not see themselves as being in good relationships with government, especially because of POTRAZ. When it comes to POTRAZ the companies want to charge a certain fee for a particular service, POTRAZ will say NO, you cannot do that. And yet this may be that was going to be beneficial to society as well. You should also take note that anyone, since if communication is key for people, the government must not intervene so much because it reduces innovation because for you to be creative you need to design a product and designing a product you have got costs, and those costs need to be recovered through pricing. So, if you design a new product and put it on to the market and then you are told you cannot charge it beyond a certain price, then it becomes a challenge and that you cannot charge in US\$, that is another challenge that is in Zimbabwe. Your services must be charged only in local currency which is very unstable. When MNOs procure materials, they must pay in foreign currency, that is, the US\$. The RBZ also takes time to pay the MNOs in their foreign currency.

Political Factors

Do you think there are political factors that are likely to influence the service?

Yes, there are, government owns an MNO, and government always props up their MNO. The government is a referee, and it is their team that is playing, they always want to make sure that their team scores, even if it is a clear goal, they always say it is a score. The government also must heed reducing influence on these MNOs so that we have perfect competition and there will be good quality service and the prices will go down.

Infrastructure

The infrastructure is affected by procurement, these are technological companies and changes come every day. So, if new equipment has been manufactured, it needs to be procured. To buy that equipment, the MNOs must go through the RBZ and the RBZ pays for it and then the equipment is brought into the country. So, we also have the challenge of sanctions. Zimbabwe cannot always get what they want. If that technology is coming from America, for example, the RBZ cannot pay for that technology because the banking system cannot link with the American system. This is really a big challenge. MNOs cannot pay in their capacity because they have to declare to the government or pay through the central bank. The Reserve bank also has its own bottlenecks and how it relates to the international community.

Ethnicity and Tribe

Not really, it could be, but it is true with the government owned MNO has very few lines in Matebeleland. People there would rather go for the market leader and the struggling MNO. But in Mashonaland, there are more government owned MNO lines. The government run does not have much coverage in Matebeleland. People in Matebeleland take the government owned MNO to be the ruling party's MNO.

Electricity

But what they have done now is install solar panels on all boosters. What this means is that when there is no electricity, they can always hook up solar. During the day they use solar and at night they use batteries. Some base stations have diesel powered generators, as back up, and so whenever there is no electricity, those always come into play.

Vandalism

Thieves drain the diesel to sell on the illegal market and this can only be blamed on the economic hardships influences in society.

Mitigation

Privatising the sector is the way to go, and independence of POTRAZ is required. There should not be too much government intervention, but should stand by itself, and the RBZ needs to prioritise these MNOs so that whatever money they make, they quickly convert it to, maybe gold, US\$, to help them pay their dues overseas, their international payments also should be settled on time. This would create good relationships between suppliers and MNOs and make things cheaper also for them. Service would be cheaper for the consumer, as well as getting updated products on time.

These MNOs may want to bring 5G to us, but how are they going to support it, how are they going to charge for it? Remember, they cannot just buy and say they are servicing it. It takes time to roll out to rural areas because of the capacity to pay. People in the rural areas do not have the capacity to streamline movies, or they do not have the gadgets as well and the other challenge is electricity. Remember 5G means all cylinders are firing and it consumes batteries for the gadgets. When you are using solar it drains power so quickly. It is mostly used in cities (Harare and Bulawayo) where there is more civilisation and there is more need for it and the economic challenges that we have spoken about. Even in the city itself, I think 5G is more in the affluent suburbs, you cannot find it in the other areas.

Anything that you would like to add to our discussion?

I think just privatising the sector would be good and independence is required on the side of POTRAZ. There should not be too much government intervention on POTRAZ, it should be standing on its own and the RBZ should also prioritise these MNOs, so that whatever money they make, they quickly convert it may be to gold, or US\$ to help MNOs pay their dues overseas and their international statements also be settled on time. This would create a good relationship between suppliers and MNOs, making things cheaper also for the consumer as well as getting updated products. MNOs may want to bring 5G to us, but how are they going to support it, how are they going to charge for it? Remember there is pay back for it. It will take time to have 5G rolled out, especially in rural areas because of capacity to streamline and the rural population does not have the gadgets as well. The other challenge is electricity as well, because with 5G all cylinders are firing and it consumes batteries for subscribers' gadgets, and if you are using solar, it drains more power. 5G is mostly used in cities because there is more civilisation in cities and there is more need for it plus the economic challenges

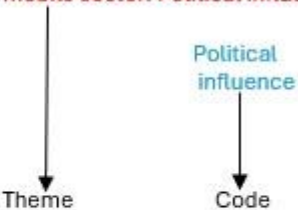
that we have talked about. In the cities itself it is more in the affluent suburbs, and you cannot find it in other areas.

Appendix E Extraction of Codes and Themes from Data

P6 My views are that they have not yet reached the communities. Many places are not yet connected, they offer them but mostly, many people cannot afford the recharge cards amount and the data is just too little for the stipulated amount of money. You find a US\$, you may speak for only for some five minutes or so. The other thing is that I feel they should extend/intensify their connectivity to rural areas, remote areas and even some places where we may say these places are connected but you may find that the signal is weak. Yes, it is limited. My suggestions are that the coverage must be very wide in the sense that we have children learning online. Only children who are in the privileged areas access these online lessons. The children who are in the remote areas where there is no connectivity tend lose out and yet they write the same examination at the end of the day. The cause for this might be that the fact that Zimbabwe is still an underdeveloped country, I feel that the government must intervene especially in the areas like clinics and schools to install internet which can benefit many people, and this must be somehow free although we know that it wouldn't be very free and yet we there is the taxpayer who would be paying for that, but to assist the community. I feel the government has to intervene really, just like they are trying to do now. You find that in some areas they have since connected some areas, like Matsheumhlope, a suburb in Bulawayo they have put up internet. Infrastructure still leaves much to be desired; they still must do some more. The other challenge is that people are destroying the infrastructure, stealing and the problem we have is vandalism and theft of infrastructural components.	Coverage is limited, many unconnected areas. High tariffs vs airtime Intensify connectivity in rural areas (Q3) Where connected, service quality poor/weak signal. Effect on children's education, privileged areas vs under-privileged areas. Government to do more (Q3) Vandalism and theft of
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Tariffs are just too high. To reduce, I think The challenge we have is that, if say, someone sends can you a message and says please respond before the end of the day three quarters of the respondents will respond because of poor connectivity. Some tend to go to a higher ground or climb trees or go to some spot where there could be connectivity you go to a spot where you get connectivity. Some have a particular spot where they get connectivity It has not covered enough area, there are still areas without connectivity it is still very limited. I feel if there is some competition of some sort. Most probably this might assist. For now, we have got three registered MNOs competition. If we may have at least ten or so, these people would be competing and each one of them would be saying I do not want to be surpassed by others and that way the quality of service might improve. What we have not the multiple-sectoral approach whereby we do not want to leave anyone behind. In the area we have for example, the police, clinics, Agritex, businesspeople what we would say the community, we now work together. We now encourage people to work together so that so that what can be observed by a teacher could not be observed by, say, a businessman. But as we come together each one contributes something according to their specialisms. I have a feeling that this must be easily provided even to the poorest person. The person whom we say is poor, even if we do not encourage that. Everybody must not have a challenge of just phoning someone. Even this foreign currency, in using this foreign currency some providers now want payment in foreign currency (US\$) only. They discourage the local currency which is currency got by everyone. should not have a problem phoning someone.	infrastructure components. Tariffs too high, poor connectivity affects invitations to meetings where $\frac{3}{4}$ of invitees do not receive notice of meetings. (Q2) Call for more MNOs, at least ten for more competition Economic issues Dual currency Power outage (Q3) Encourage multiple-sectoral approach Dual currency Use of the US\$ and discouraging of local currency use
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Appendix F: Themes and the Coding Process

Whatever problems associated with the service provision of MNOs emanate from government rules and regulations. Political factors are playing a big role in the mobile telecommunications of Zimbabwe. The telecommunications regulatory agency, POTRAZ, is owned by the government. All policies governing the agency are set by the government. At the same time, the government has a monopoly on fixed lines and is also a MNO that is, the fixed lines, and as a result, there are regulations that apply to the two privately-owned MNOs that do not apply to the state-owned MNO. The state-owned MNO's operations are not monitored, and the operator is free to do as it pleases. MNOs are encouraged to share infrastructure - profitability does not really matter Interviewee 1	Answer to RQ1: Service provision influenced by govt rules and regulations. Political factors play a big role in the mobile sector. Political influence 
"There are service interruptions whenever there are certain political figures in the area. You may experience network interruptions for three to four days in a week and cumulatively eight to ten days in a month. Telecommunication services can be switched off due to the delays in payment to the power supplier, ZESA. This power cut affects for instance, hospitals, fire stations, doctors are tremendously affected by the switching off power by ZESA. This happens yet payments will be affected two days later. Hotlines like Suicidal Watch etc., use a particular service provider and that means service would be off for two- or three-days due payments delays and yet ZESA would be aware that payment would be made" Interviewee 8	Answer to RQ2 Political figures, ministers, MPs, members of ruling party can order switching off network in particular areas. 
"To improve the service, the government should let the market free so that new players can come in. More competition would mean there is more innovation, there is more creativity and the price of calls, and data would go down because people are all vying for the same market, so they tend to reduce their prices so that they become more attractive to consumers". "I think just privatising the sector would be good and independence is required on the side of POTRAZ. There should not be too much government involvement on POTRAZ Interviewee 11	Answer to RQ3 Government to do more to help MNOs and allow more players in the sector. 

MS Word showing the Code and Theme processes

Appendix G



Stirling Management School (SMS)
ID.....
University of Stirling
Room 3X2
Stirling, FK9 4LA
Telephone: +447311424322

Participants Information Sheet and Consent Form

Study Title: Institutional Factors Influencing the Service provided by Mobile Network Operators (MNOs): A Case of Zimbabwe.

Introduction and Nature of the Research

My name is **Elizabeth Malaba Ncube**, and I am a Doctor of Philosophy (PhD) student at the University of Stirling in the United Kingdom. The purpose of my research is to investigate the influence of institutional factors in the service provided by Mobile Network Operators (MNOs) in Zimbabwe.

I would like to invite you to participate in a semi-structured interview that will take about 60 minutes. The interview will consist of questions relating to your own experiences and observations regarding factors that are likely to influence the service offered by MNOs to subscribers. This interview will be virtual, either on Zoom, MS Teams, Skype or whichever medium is applicable.

Most existing studies on this topic have been from the demand side, that is, from the subscribers' perspectives relating to their satisfaction with the service offered by MNOs. However, not much is known from the supply side, that is, from the perspective of MNOs and other stakeholders.

This study, therefore, sets out to investigate and understand the factors influencing the provision of mobile telecommunication services in Zimbabwe from the supply side with a view to providing a stakeholder-based solution. You have been invited because of your knowledge/involvement and experience in either the telecommunications sector, a mobile telecommunications firm and/or the business environment in which the mobile telecommunications organisations operate.

Confidentiality and Anonymity

With your permission, the interview will be recorded. This is **ONLY** to help in the accuracy of transcribing interview data by myself and the supervisory team (Project Supervisor and Second Supervisor). Notes taken and transcripts of interviews will be stored securely and anonymously in electronic form on password protected, encrypted drives in the University of Stirling's IT System and hard copies in secure storage. The data will be archived on the University DataSTORRE for a minimum of 10 years. No names or company affiliations will be used in the PhD thesis, or any publications arising from this research. Participants will be represented by numbers, e.g. Participant 1 will be P1, and you will, as a participant be given a number. After transcribing the interview notes, a transcript will be sent to you to verify.

Participation

Participation in the study is entirely voluntary and you may withdraw at any time. Your participation in the research is in support of a PhD student in the acquisition of knowledge, which will be beneficial to the wider community. This includes, MNOs, mobile phone subscribers, education providers (schools, colleges and universities) and other members of our society who rely on mobile phone services for their livelihood.

The ethical approaches of this project have been approved via The University of Stirling.

Contacts

If you would like to discuss the research with someone, you can email: e.m.ncube@stir.ac.uk OR s.l.burt@stir.ac.uk (Project Supervisor).

Consent

Please tick or delete as applicable.

I confirm that I have read and understood the information sheet explaining the research project and my part in.

Yes/No

I have had the opportunity to ask questions about the interview procedure or research and they have been answered.

Yes/No

I understand that I have the right to withdraw my data at any point during the study by contacting the researcher stating my participant ID.

Yes/No

I agree to have the interview recorded.

Yes/No

I understand my responses will be kept anonymous and give permission of the research supervisory team to access my anonymised responses.

Yes/No

I agree to take part in this study.

Yes/No

PLEASE RETURN THE COMPLETED DOCUMENT TO THE RESEARCHER AND KEEP A COPY FOR YOUR RECORDS.