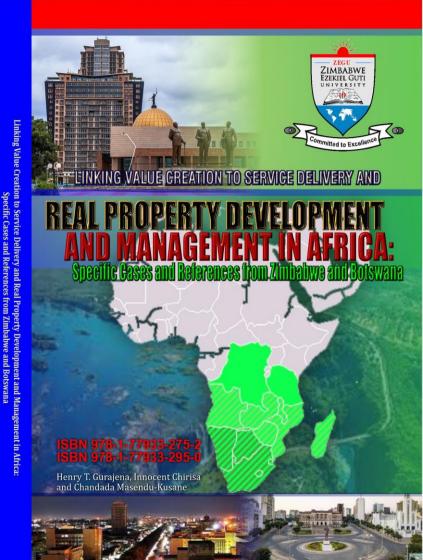
Linking Value Creation to Service Delivery and Real Property Development and Management in Africa: Specific Cases and References from Zimbabwe and Botswana

The world has been forced to adapt and evolve rapidly, and the real estate industry in Africa is no exception, Linking Value Creation to Service Delivery and Real Property Development and Management in Africa: Specific Cases and References from Zimbabwe and Botswana is a pioneering book crafted by seasoned professionals from Zimbabwe and Botswana, who have come together to document their experiences, insights, and strategies for navigating the ever-changing landscape of African real estate. This comprehensive book delves into the heart of key topics in real estate, offering invaluable perspectives on value creation, service delivery, the human factor, and the development and management of real property in Africa. This work emphasizes the importance of efficiency, productivity, and sustainable strategies in a forever-changing environment. One of the book's central contributions lies in its emphasis on the Human Factor (HF) approach, a concept propounded by Ghanajan scholar Senyo Adjibolosoo. By highlighting the significance of personality characteristics and human performance in real estate, this book offers fresh insights into how African societies can be more competitive, attractive, and efficient and harness their creative potential. It addresses critical issues such as corruption, financial mismanagement, and citizen apathy, offering innovative solutions to overcome these challenges. The chapters within cover a wide spectrum of topics, from the interplay of globalization and foreign direct investment in Africa to the role of technology in property management. The book also explores local government taxation systems, housing provisions for low-income earners, and the use of technology to improve property management during crises like COVID-19. This book contributes significantly to the discourse in real estate, planning, governance, administration, geography, and development studies by sharing practical lessons, case studies, and innovative solutions. It provides a roadmap for African countries to harness their vast potential. foster sustainable development, and create resilient real estate markets. The book challenges existing paradigms, offers concrete solutions, and charts a course toward a more prosperous and sustainable future for the continent's real estate and development sectors. This book is essential for policymakers, industry professionals, and anyone interested in the transformative potential of African real estate.





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Chapter 1: Introductory Overview

HENRY T. GURAJENA, INNOCENT CHIRISA & CHANDADA MASENDU-KUSANE

1.1 Introduction

The present book project was developed by real estate and project management professionals practising in Zimbabwe and Botswana to document experiences around value creation, service delivery, development and real estate management in Africa. It has been created during the time the world order has been altered by the COVID-19 pandemic. Times have changed and the real estate and project management industry too is required to alter its approach and, in some cases, services paving way for sustainable strategies that ensure that some results are obtained while factoring input and effort.

The book is centred on value creation, service delivery, human factor (HF) and development and management of real property in Africa. Value creation is any process that creates outputs that are more valuable above the utilised inputs. The process is based on efficiency and productivity. Service delivery can be defined as any contact with the public during which customers, citizens, residents or enterprises, seek or provide data, handle their affairs, or fulfil their duties in an effective, predictable, reliable and customer-friendly manner. The subject of property development and management is concerned with building and maintaining a property portfolio that generates income or helps to achieve organisational sustainability and/or facilitate

employment creation. The HF is "the spectrum of personality characteristics and other dimensions of human performance that enable social, economic and political institutions to function and remain functional over time" (Adjibolosoo, 1993). The HF concept is, therefore, about the impact of personality characteristics on a person's performance, effectiveness as well as efficiency towards tackling a certain task, hence it is concerned with the quality of people (Mararike, 2014). This book project is centred on the defined discourses in the wake of the COVID-19 pandemic.

The HF Approach was propounded by Senyo Adjibolosoo, a Ghanaian scholar who is also a founder and Director of the International Institute for Human Factor Development (IIHFD) (Mararike, 2014). From the socio-economic development perspective, as pointed out by Adjibolosoo (2000), a lot of relief programmes in the form of food aid, clothing, pharmaceutical drugs and evacuation aid from hazardous risk areas, are being done in Third World nations in a bid to improve living standards However, these activities do not seem to achieve substantial outcomes in terms of the desired sustained economic growth and human-centred development. He further suggested that the reason for failing to improve social and economic conditions by both governments and non-governmental organisations (NGOs) is their inability to recognise the significance of appropriate HF activities and how to develop them. That failure in fact is fuelling over-dependence on assistance by various

societies during the occurrence of hazardous risk events in the long run and leaving them as victims. Therefore, this means that there is need to develop the creative potential of people so that they rely on their own efforts and take the initiative in cases where need arise (Chivaura and Mararike, 1998). Most importantly, the people may become independent, fully responsible and accountable for their successes when they encounter difficult issues (Adjibolosoo, 1995; 1998; 2000; Chivaura and Mararike, 1998).

In a bid to eradicate over-dependence and develop the creative potential of people, there are certain universal principles, including personal responsibility, accountability, integrity, commitment, selflessness and liberty, that society need to dwell much on (Adjibolosoo, 2000). These doctrines can be attained only if the HF approach is adopted since it is the only avenue of success for any organisation or society (Mararike, 2014). As far as risk management is concerned, making the HF the focal point may inculcate knowledge and skills in people (potential victims) so that they can save themselves in cases of hazardous events like fire and floods (Chivaura and Mararike, 1998; Beijerse, 1999; Adjibolosoo 2004).

1.2 BOOK SUMMARY

During the COVID-19 pandemic, a majority of countries have been directing their resources towards efforts of fighting and combating the spread of the virus. This has seen little resources

directed towards resuscitating economic activities, although governments have been initiating efforts to attract investments. The second chapter in this book, titled "The interplay of globalisation, foreign direct investment, and real estate investment in sub-Saharan and North Africa", seeks to discuss movement of foreign direct investment (FDI) and direct investment (DI) in Africa in general to pave way for intimate deliberations around investments in the continent. This chapter argues how the effectiveness of real estate asset management is at stake if the terrain of media and technological utilisation, understanding of global financial markets and how race and ethnicity determine real estate markets are not fully captured and understood. Through sharing and adoption of knowledge created in successful cities around the world, Sub-Saharan Africa and North Africa stand at an advantage. In the same vein, they must be careful in the domestication of the strategies ensuring that they are amenable to absorbing shocks created both by internal and external forces including financial crises. Understanding Appadurai's (1996) clustering of globalisation is the first step into creating resilient and sustainable real estate markets in Africa.

While governments in Botswana and Zimbabwe have utilised their reserves in combatting the spread of the novel COVID-19 virus, they are expected to be more aggressive in their revenue collection methods. Botswana has already increased its value added tax (VAT) from 12% to 14%. Revenue generation

strategies have become a very topical issue for governments at this juncture. Chapter 3, "Service delivery and the local government taxation systems in Africa: Practice, scope and options", discusses taxation systems. It seeks to systematically discuss service delivery and local government tax systems with a view to assessing practices in African countries and scout whether there is scope for improvement amid the existence of any array of emerging options, including taxing the informal sector, participatory budgeting and capitalising on land value capture. The chapter draws lessons from other regions, particularly Asia and Latin America, where these options have been applied and have yielded immense success. It comes in the context of paucity of literature in the African region to demonstrate ways to improve service delivery (including road infrastructure development and maintenance, water supply and augmentation, housing and shelter provision and the development physical markets) through innovative means that harness financial resources through negotiations and developing efficient and equitable constitution systems. The chapter is based on a desktop study that used literature review, document review and thematic content analysis. In urban areas, generally, the demographic dividend ought to be the riding factor by local government in making sure that citizens and residents contribute to the development of their areas. Participatory budgeting brings ownership and satisfaction to the raising, management and accountability of financial resources harnessed by local governments. Africa, however, faces several

challenges that create unnecessary hiccups to implement some of the processes that work well elsewhere. Among the noted handicaps are corruption, financial mismanagement, residents and protestation by residents, co-optation and interference by the central government in local government affairs, and general apathy of citizens to participate in matters that affect them.

Chapter 4 is titled "Implementation of the management triad by real estate investment firms in Zimbabwe". The chapter examines and discusses the challenges and prospects in implementing the management triad in Africa. It provides a motley review of professional roles and responsibilities of management triad for the regions under consideration, taking a lesson from other African countries. The overall aim is to obtain an intimate appreciation of professional roles, responsibilities and interests of the management triad when working with investor organisation. Overall, missing in literature is an understanding of the link and dynamics thereto between real estate investment firms and portfolio management, asset management and the property manager's responsibilities for the investment firms to achieve their financial goals. To provide a vivid picture of the story, a case study of Zimbabwe is engaged. The study engaged interview and cases approaches to collect data and review experiences. Evidence emanating from the study shows real estate investment firms are indeed aiming at safeguarding their investments, maximising capital gains and increased returns. However, they do not have a cordial way of

making use of the management triad to help achieve their objectives. Under results, three major private players listed on Zimbabwe Stock Exchange and the largest pension fund were thoroughly investigated and results noted. It is concluded that the effectiveness of real estate investment firms is at stake if the current approach of managing assets is continuously used. Through sharing and adoption of knowledge created in successful global institutions, local real estate investment firms are bound to benefit from adopting best international practices in use of management triad.

Chapter 5 draws practical lessons from Harare to discuss another form of efficiency in revenue collection by local or central governments. The chapter is titled "Inner-city bus termini as potential revenue-generating sources for the city of Harare". This chapter discusses bus termini as potential 'gold mines' for local authorities in Zimbabwe. It seeks to advance the argument that sizeable revenue is leaking because of the ineffectiveness of local authorities in administering activities carried on at bus termini. The major gap in literature that this chapter seeks to fill relates to potential earnings that are being pocketed by rank marshals and touts. Bus termini in the Harare central business district (CBD) in recent times, have not been on the city's revenue-generating assets portfolio. In recent times. It has been getting its revenues from advertising and building in the form of rates and rent, yet bus termini exhibit an unexplored revenue base. The chapter can, therefore, be used

as a tool that informs the urban manager (Harare City Council, HCC) about revenue that is not being harnessed. It can also be the reference point to strategy-making in the city council when making decisions on expenditure on redevelopment of transport communication infrastructure. To understand the realities on the ground, interviews with urban managers were carried out and observations were noted at bus termini These instruments then represented data collections tools. Results showed that, indeed, revenue is leaking. This was proved mainly by existence of touts and rank marshals and touts estimated to be at least 1 250 in the Harare CBD alone, collecting revenue from bus operators. This could be attributed to inefficient systems implemented by urban managers at bus termini as observed. It is, therefore, recommended that the HHC should now start redeveloping and constructing new bus termini and billing bus operators each time they use the bus termini. The council should also now regulate the number of bus operators in the city.

Chapter 6 was motivated the COVID-19 pandemic as property owners struggled to collect rentals accrued by business operators. The chapter is titled "Rental accruals during COVID-19: Prop-tech solutions for effective and sustainable property management". COVID-19 has crippled many small to medium business operators. As a result, companies are struggling to honour their rental obligations. Business has been tough for most players. Governments also used most of its resources to

combat the spread of the virus. While governments have various sources of income, small business operators have struggled to get back on their feet. Many have downscaled, and others have even shut down shops. For those bold enough to continue operating, various copying mechanisms were adopted to see the business through. Unfortunately, some unscrupulous elements in the business community have chosen to defraud property owners their rental arrears and move from building to building, avoiding accrued rental arrears in Botswana. This chapter proffers a technology solution motivating real estate property management professionals in Botswana to develop a platform that monitors database of tenants. The proposed solution can also be used to track the changes in the interest of property consumers. It has been motivated because of the anomaly observed when tenants skip from property to property evading paying rentals accrued during the COVID-19 lockdown period.

Chapter 7 takes a particular interest on housing provision in Botswana. The chapter is titled "Low-income housing solutions: Reviewing effectiveness of government's initiatives to provide decent housing. A case study of Botswana". This chapter reviews the effectiveness of government's initiatives to address low-income housing solutions in Botswana. The chapter will first unearth efforts that the government has adopted or enacted and reviews them to determine their effectiveness. Assessing effectiveness helps the government to note change and

eventually recommend more action aiming at reaching sustainable solutions to provide decent housing for low-income earners. While noticeable efforts have been made in Botswana, for example, activities by the Botswana Housing Corporation (BHC) and the recent Transfer Duty (Amendment) Act (Act No. 24 of 2019), a major missing aspect in literature which this chapter is seeking to plug is the effectiveness of the policies in making low-income housing available for low-income earners in Botswana. To understand the realities on the ground, the study employed a mixed approach technique for data collection. An online questionnaire was completed through Google sheets by aspiring homeowners, while secondary data collection methods, through review of published data by organisations that report on housing, for example, the Centre for Affordable Housing Finance in Africa (CAHF) and Vantage Properties Property Markets reports. Results indicated that many initiatives by the Botswana government were misdirected. Low-income earners do not benefit from the available schemes offered by the BHC, therefore, initiatives are failing to benefit the people they are designed for. It was, therefore, recommended that government should actively facilitate and promote programmes, for example, ROSCAs and Internal Saving and Lending Schemes (ISLES), that are initiated by low-income earners themselves since they are the biggest benefactors of initiatives.

While Chapter 7 discusses housing provision in Botswana, Chapter 8 is concerned with the experiences postured in Zimbabwe. Chapter 8 is titled "Home ownership challenges in Zimbabwe: Experiences of households, banks and local authorities". Since home ownership is the keystone of wealth and social security, a society's success is measured by its ability to provide housing to its poorest members. This study analyses the extent to which Zimbabweans are adequately housed using existing funding and housing finance facilities. The primary objective of the study was to explore the extent to which the urban poor are facilitated in acquiring adequate housing by the Government of Zimbabwe. The research design used was triangulation. The research instruments used were questionnaires and key interview guides. Key findings of the research revealed that the Government of Zimbabwe does not assist its citizens in ensuring adequate housing and that more than 90% of first-time homeowners use developer and savings to acquire land or housing. The research also discovered that 70% of the population could only afford to purchase vacant land and not complete structures. The study recommends use of community-based self-help mechanisms by home-seekers and for the authorities to update policies on the housing value chain to improve on housing delivery.

Chapter 9 is titled "Implications of the human factor approach pertaining to fire safety management in public leaning institutions: Case of the University of Zimbabwe" and aims at assessing the level of inclusion of the HF approach in fire safety management (FSM) system at the University of Zimbabwe

(UZ). The HF approach is the basis of substantial achievement in terms of human-centred development and evasion from hazardous risk events in any society. Likewise, in any property type (commercial, residential, industrial or institutional), the efficacy and efficiency of FSM is determined by the level of incorporation of the HF competences which include readiness, preparedness, ability, awareness and capacity to deal with fire issues without any probing. The occurrence of fire incidents in public learning institutions is exceptional, but in case of its emergency, it results in catastrophic destructions of both occupants and valuables. Regardless of the existence of modern advanced fire safety equipment in public learning institutions, fire hazards are recorded and continue to be a potential hazard mainly because of the failure to adopt the HF approach by the responsible team to ensure that the occupants have the technical expertise on how to operate the equipment. In a bid to achieve the aim of the study, the triangulation research approach was utilised through integration of primary and secondary (documentary review) research methods. To obtain primary data, 50 questionnaires were administered to both students and staff, interviews were conducted with the fire safety department and department heads, as well as observation by the researcher. The outcomes of the study reflected that the level of the HF concept inclusion in FSM at the UZ is at the infancy stage. Thus, to ensure that the institutional building occupants are free from fire risk, the study suggests

the FSM team provide skills through training and educating building occupants in the use of fire safety equipment.

Chapter 10 is the conclusion on the book.

1.3 CHAPTER CONCLUSION

The Introduction has presented the chapter outlay highlighting key issues that each chapter discusses. Chapter 1 introduced the book, Chapter 2 gave the interplay between globalisation and how African countries can fit in in terms of real estate investment and value creation. Chapter 3 systematically discussed service delivery and local government tax systems with a view to assess the practices in Africa. Chapter 4 takes a look at how the management triad is used by real estate companies in Zimbabwe. In Chapter 5 the book investigated challenges of rental accruals due to the COVID-19 pandemic in Botswana. Chapter 7 concerns effectiveness of government's initiatives to address low-income housing solutions in Botswana. In Chapter 8, the book analyses the extent to which Zimbabweans are adequately housed, using existing funding and housing finance facilities. In Chapter 9, the inclusion of the HF in FSM is assessed with reference to the University of 7imhahwe

Chapter 2: The Interplay of Globalisation, Foreign Direct Investment and Real Estate Investment in Sub-Saharan and North Africa

HENRY T. GURAJENA AND HALLELUAH CHIRISA

2.1 CHAPTER SUMMARY

This chapter argues how effectiveness of real estate asset management is at stake if the terrain of media and technological utilisation, understanding of the global financial markets and how race and ethnicity determine real estate markets are not fully captured and understood. Through sharing and adoption of knowledge created in successful cities around the world, Sub-Saharan Africa (SSA) and North Africa (NA) stand at an advantage. In the same vein, they must be careful in the domestication of the strategies ensuring that they are amenable to absorbing shocks created by both internal and external forces, including financial crises. Understanding Appadurai's (1996) clustering of globalisation is the first step in creating resilient and sustainable real estate markets in Africa.

2.2 Introduction

Africa has been experiencing robust expansion since the early 2000s. This growth and expansion are concomitant with the ongoing rapid urbanisation. Between 2000 and 2015, the rate

of urbanisation was at 3.5% and estimates indicate that more than 50% of the African population will be living in cities by 2030 and this percentage is expected to increase even further, to go over 60% by 2050 (UN-Habitat, UNECA, 2017). The population has been growing at an annual rate of 2.53% from 1950 to 2015 and is predicted to increase from 1.18 billion in 2015 to 2.44 billion in 2050. This implies that responsive strategies should be administered in cities to help global investments in real estate and increasing provision of amenities (World Bank, 2015). Yet, employment prospects have been dwindling over the past years due to many reasons, such as the fall in oil prices and a hit by the slowing down of emerging economies, especially China (Africa Competitiveness Report, 2017). With the advent of globalisation and Africa's abundant resources, the continent attracts foreign direct investment (FDI), but this is possible only where local conditions are favourable to this investment, thus, countries always strive to make their cities more competitive.

A competitive city is "a city that successfully facilitates its firms and industries to create jobs, raise productivity and increase income of citizens over time" (World Bank, 2015), while adding the aspect of sustainability (World Economic Forum, 2014). Many scholars are of the view that the world is organised by accelerating globalisation, that is, strengthening the dominance of a world capitalist economic system (Kellner, 2002; Delaney, 2016). Others believe globalisation provides a cover concept for

global capitalism and imperialism (Nanga, 2015). On the other hand, defenders argue globalisation is the continuation of modernisation and a force of progress, increased wealth, freedom, democracy and happiness. Overall, globalisation is viewed as beneficial, as it brings economic opportunities, political democratisation and cultural diversity. Appadurai (1996) sees globalisation as a fluid and dynamic phenomenon tied to worldwide migrations (both voluntary and involuntary) and the dissemination of images and texts via electronic media. He realised that with the invention of cars, airplanes, computers and telephones, world citizens had entered a new condition of neighbourliness, even with those most distant from others (*ibid.*).

The result of globalisation and FDI is usually Foreign Real Estate Investment (FREI) that becomes apparent on the ground owing to the returns from the investors who may invest in real estate sector. In Africa, for instance, the question is about how the region must fit into global competitiveness while simultaneously addressing the contextual matters of race, ethnicity, poverty, governance (accountability, trust and transparency) and the quest for equity and resilience. The Africa Competitiveness Report of 2017 notes that inadequate and outdated urban plans are preventing cities within Africa from enjoying benefits from rapid urbanisation and associated economies of scale. The new plans must include recent economic, demographic and urban developments. Advanced planning can lower infrastructure

costs whilst increasing density can help address the issue of urban gridlock with its associated productivity costs and can reduce urban sprawl that has been pressurising agricultural land and the environment. The urban plans can be updated only through the sharing of knowledge with other successful cities around the globe.

The chapter makes an analysis of how globalisation has affected each African state and its real estate asset management. The chapter addresses the following questions:

- 1. In what ways does globalisation influence FDI in Africa?
- 2. How has the real estate investment been affected by the FDI and globalisation in Africa?
- 3. What are the constraints in FDI and FREI resulting from globalisation?
- 4. How can these be addressed to spur sustained economic growth of the real estate sector?

The study examines and discusses investment strategies by real estate managers in Africa, with divergent reference to SSA and NA. It provides a kaleidoscopic review of professional roles and responsibilities in the real estate industry in the two distinct regions. The overall aim is to obtain an intimate appreciation of professional roles, responsibilities and interests of real estate asset managers in NA and SSA. It has been observed that much real estate management triad, being profit-oriented, considers

some specific investments options for particular specific populations. This segregation is based on race, income, rule of law, politics and sometimes ethnic influences and the five clusters of distinction of globalisation by Appadurai (1996) – financescape, ethnoscape, mediascape, ideoscape and technoscape – are the lenses and persuasions through which this contribution bases its argument .

2.3 LITERATURE REVIEW

Globalisation refers to the increased flow of people, trade, investment, cultures and technologies between countries and the major issue being creation of an integrated and interdependent world (Gaburro and O'Boyle, 2003). Through globalisation, there is an increased blurry of national boundaries such that the world exists as a common space with minimum restrictions on the flows of the stated commodities. In the 15th century, European explorers and colonisers set the pace for globalisation and this continued and intensified during the 18th century following the Industrial Revolution in Europe and America. During the time, advances in technology and manufacturing resulted in increased productivity in industries, calling for the opening up of new markets beyond Europe. As a result, globalisation can, thus, be categorised into different types, including - economic, financial, cultural, political, ecological and sociological.

The diversity of globalisation is outlined by Mittelman (2000: 6-7) who asserts that:

'… the dominant form of globalisation includes a historical transformation: in the economy, of livelihoods and modes of existence; in politics, a loss in the degree of control exercised locally… and in culture, a devaluation of a collectivity's achievements … Globalisation is emerging as a political response to the expansion of market power … [It] is a domain of knowledge.'

This is evident from the manner in which missionaries sought to spread Christianity in Africa. That is a form of cultural globalisation, while the opening up of Africa as a market for the West is a form of financial and economic globalisation. Colonisation is a kind of political colonisation as it was premised on power and domination of weaker countries. The focus of this study is on economic globalisation that is defined by Shangquan (2000: 1) as the increasing interdependence of world economies because of the growing scale of cross-border trade commodities and services, flow of international capital and wide and rapid spread of technologies.

Globalisation is leading to massive movement of global real estate capital on the world (Rogers and Yoh, 2017). Discussions of globalisation in the 1990s and earlier overlooked the real estate industry as a possible participant in the ongoing phenomenon of increasing global economic integration. In the 2000s, globalisation has increasingly involved the internationalisation of services sectors, such as manufacturing

and various sub-sectors of real estate have been enthusiastic participants in this global surge (Barkham *et al.*, 2017). Builders, brokerage, consulting and services and real estate finance firms, and investors have extended their areas of operations beyond local markets to a world-wide base. Several factors have led to this transformation of the industry. Technological changes have extended the geographic reach and weakened the nexus between "local" and "location". The increasing openness of formerly closed economies in the developing world has significantly expanded opportunities for real estate firms across the globe (Bardhan and Kroll, 2007).

By its nature, globalisation influences FDI and real estate investment in multiple ways. With regards to FDI, it is argued that globalisation will lead to a decrease in the initial mutual dependence of local firms that tend to be integrated or absorbed or overshadowed by the global production chains (Incekara and Savrul, 2012). Globalisation results in increased foreign capital inflow as different multinational companies flock into different regions where they contribute in different economic sectors, enhancing the capital flows in certain countries. This is evident from the way China has been recently investing in different projects across Africa (Ziso, 2017; Lee, 2018). On the other hand, previous cases and examples can be drawn from the way European countries, for example, Britain, colonised most of Southern Africa, resulting in capital inflows from the host countries (Kalu and Falola, 2018).

Through globalisation, FDI is ultimately enhanced, and this helps in sustaining local economies. It is observed that in past decades, the amount of FDI that developing countries have received has been on the rise but depends and varies on the economic sectors in a particular region and country. Hence, FDI tends to be directed towards a particular issue and sector, for example, in manufacturing, oil extraction as has been the case in countries with abundant oil reserves such as Libya (Pradella and Rad, 2017) and mineral mining as China is doing in recent times in countries such as Zambia, with her copper and the diamonds of Zimbabwe (Kragelund, 2016; Chipaike and Bischoff, 2019), or trade and public utilities including bridges, roads and hospitals.

Real estate investment becomes one area in which capital can be injected into by the multinational companies. Real estate is an investment portfolio. Investment entails a commitment of money or capital to purchase financial instruments or other assets to gain profitable returns in the form of interest within a stipulated period of time. Yet, the accomplishment of this goal is highly dependent on how real estate resources are being made available for transaction purposes that, in turn, is dictated by the nations' government policies regulating the markets (Pedersen and Lemelson, 2005). The efficient functioning of real estate markets is, thus, a priority across the African region.

Real estate development is the continual reconfiguration of the built environment to meet society's needs, for example, the construction of roads, water reticulation plants, housing, office buildings and lifestyle centres (Urban Land Institute, 2007).

Real estate development is a process that transforms an idea into bricks and mortar. Once real estate investment construction is completed, it is the responsibility of the management triad (property management, asset management and portfolio management) to take over and deliver the cash flows envisioned in the feasibility study and to maintain the physical structure and site to protect the project's long-term profitability (Miles, 2007). Property management is the operation, control and oversight of real estate as used in its broadest terms (Urban Land Institute, 2007).

Davies and Jokiniemi (2008) define property management as the job of upkeeps, maintenance and servicing of a building or property. Property management involves the processes, systems and manpower required to manage the life cycle of all acquired property as defined including acquisition, control, accountability, responsibility, maintenance, utilisation, and disposition. Property management is located on site and is the primary link with the tenant. Property management is a role that is far more complex than simply showing space, signing leases and collecting rentals.

Property managers seek to generate the greatest possible net income for the owners of an investment property over its economic life. If the goals of the owner are reasonable, ethical and lawful, essentially the property manager seeks to achieve the objectives of the owners, generate income for the owners and preserve and/or increase the value of the investment property (Kyle *et al.*, 2000). Property managers and leasing teams get commission as payments for their special services. An institutional investor can choose to manage its real estate investments in-house or by outsourcing or combining the two.

Asset management is defined as the coordinated activity of an organisation to realise value from assets (Institute of Asset Managers, 2010). In general, asset management companies have been used to address bad debt overhang in a country's financial system (Klingebiel, 2000). Assets are defined as an item, thing or entity that has potential or actual value to an organisation. Asset management is located offsite and it is done for several different properties (Institute of Asset Managers, It assumes a broader perspective that property 2010). management does not, and can specialise on property type, size and location. An asset manager manages the property on behalf of its owner (Miles et al., 2007). He/she participates in critical property management activities, for example, lease negotiations, major capital projects and annual budgeting. Asset management is a systematic process of deploying,

operating, maintaining, upgrading of real estate properties (Urban Land Institute, 2007).

Amongst other duties, an asset manager oversees the activities of property managers and is also responsible for more duties as discussed herein. Asset managers are responsible for measuring property performance. It is their duty to evaluate property managers by comparing property performance with peer properties in the same sub-market. Further, asset management assists in tenant relations management. The asset management department can include professionals like economists who are able to quickly detect and analyse market conditions. They must know the best time to buy or dispose of a property. Such professionals help global investor access possible investment destinations prior to making huge financial commitments.

Portfolio management refers to a combination of securities such as bonds, stocks, real estate and other instruments. In the context of real estate, portfolio management defines and implements its strategy considering mainly its goals and long-term objectives. It oversees asset management, acquisitions, disposals and investment decisions and supervises cash management financial performance, reporting to the owners. At the top of the hierarchy of the management triad is the portfolio manager. Other functions of the portfolio manager include receiving feedback from asset managers. The portfolio manager is also supposed to come up with investments criteria for

consideration by owners of the capital. By bringing in many ideas, it is likely that the operations will be efficient, hence leading to the maximisation of value for the investor.

When disposing or acquiring new properties, portfolio managers facilitate the process after critically analysing the implications and possible challenges likely to be faced because of such action. Literature shows that globalisation spurs FDI and real estate is among sectors where capital inflows are invested. The chapter frames the argument in the context of the core of Appadurai's (1996) model of global cultural flow. The model informs the theoretical framework of the study because it focuses on the flows emanating from globalisation and how the different issues are at play as espoused in the earlier definition of globalisation that showed that the term encompasses a range of processes that result in integration and interdependence. Appadurai (*ibid.*) was chosen for this study based on the fact that it is highly insightful in seeing the disjuncture or lack of fit in relations among different global flows today. Thus, the theory lends itself well to the quest of this study to explore the knowledge and experiences of various cities around the world as lessons for the SSA and NA as the regions stand to compete with the rest of the world in the face of globalisation.

2.4 THEORETICAL FRAMEWORK

This terminological discussion of the five terms coined by Appadurai (*ibid.*) sets the basis for a tentative formulation

about the conditions under which current global flows occur. As shown, they occur in and through the growing disjuncture among ethnoscapes, technoscapes, financescapes, mediascapes and ideoscapes. This formulation, the core of Appadurai's (ibid.) model of global cultural flow, needs explanation. First, people, machinery, money, images and ideas now follow increasingly non-isomorphic paths. Of course, at all periods in human history, there have been some disjuncture in the flows of these things, but the sheer speed, scale and volume of each of these flows are now great that the disjuncture has become central to the politics of global culture. Using the theory propounded and explained by Appadurai, the study stems to develop an appreciation of professional roles and responsibilities of real estate asset managers in the SSA) and NA regions (Appadurai, 1990, 1996).

By ethnoscape, Appadurai referred to the landscape of persons who constitute the shifting world in which people live in, that is: tourists, immigrants, refugees, exiles, guest workers and other moving groups and individuals constitute an essential feature of the world and appear to affect the politics of (and between) nations to a hitherto unprecedented degree (Appadurai, 1996). The moving groups have different tastes preferences and even expertise. Since the moving races have different tastes in the real estate services, they require property investors who are expected to provide the necessary amenities required by a particular populace. This eventually will enable different groups

to access facilities and services of real estate in particular preference tastes. The overall effect is that there is guaranteed revenue of real estate asset since particular users will likely be found in many countries either in SSA and NA.

Technoscape refers to the global configuration, also ever fluid, of technology and the fact that technology now moves at high speeds across various kinds of previously impervious boundaries (Appadurai, 1996). This can fit in with the latest real estate management software (for example SAP) that is increasing efficiency in property managers and reducing the number of personnel that are responsible for the actual management of the properties. Technology in designs as invented by various architects around the world can also lead to Africa sharing knowledge with the developed world and overall yielding in the best practices being used when real estate assets are being constructed on the continent by global investors. Understanding the role of *technoscape* is important since latest best practices can be shared with an overall impact of great improvement in real estate administration. Technology helps in comparison though it can be difficult, for example, comparing real-estate costs in New York in the United States of America and Japan's Tokyo, without taking a sophisticated account of the very complex fiscal and investment flows that link the two economies through a global grid of currency speculation and capital transfer.

Financescapes is disposition of global capital in rapid and difficult landscape to follow than ever before, as currency markets, national stock exchanges and commodity speculations move large sums of money through national turnstiles at blinding speed, with vast, absolute implications for small differences in percentage points and time units. The movement of global capital enables continents that are generally welcoming with sound economic and political climates to attract capital. Eventually, the globe maintains development rates with easy flow of capital.

Mediascapes means the distribution of electronic capabilities to produce and disseminate information (newspapers, magazines, television stations and film-production studios), that are now available to a growing number of private and public interests throughout the world. This enables investors and people to be able to follow up on the current events as they materialise in the country or region under review. The mediascapes provide (especially in television, film and cassette forms) large and complex images, narratives and ethnoscapes to viewers throughout the world, in which the world of commodities and the world of news and politics are profoundly mixed. This means that the audience the world over, experiences the media themselves as a complicated and interconnected repertoire of print, celluloid, electronic screens and billboards.

Ideoscapes are also concatenations of images although often directly political and frequently must do with the ideologies of states and the counter ideologies of movements explicitly oriented to capturing state power or a piece of it. Having information on ideoscapes enables one to ascertain level of security and likely predict general conditions in an area before investing or even consider migrating to the area. These ideoscapes are composed of elements of the Enlightenment worldview that consists of a chain of ideas, terms and images, including freedom, welfare, rights, sovereignty, representation and the master term democracy.

2.5 METHODOLOGY

The study engages a case study approach that helps to articulate the realities, practices and contradictions in which NA and SSA are assessed. For SSA, the cases engaged are Tanzania, South Africa and Zimbabwe, while Egypt, Libya and Tunisia represent NA. These are chosen because of their unique dispositions that make the evidence they generate contribute toward theorisations and practical information towards building concrete ideologies and policies for transformation.. North Africa, whose territories are part of the League of Arab States within the Arab world has a total of eight countries. The chosen three represent 38% of the population, that being a very good sample considering the data being exploring in the study. The United Nations Development Programme lists 46 of Africa's 54 countries as "sub-Saharan", excluding Algeria, Djibouti, Egypt,

Libya, Morocco, Somalia, Sudan and Tunisia. Selected countries were the chosen to represent Sub-Saharan African countries. This sample represents 9% of the region's population. The specific countries chosen included a sample with South Africa, one underperforming but with potential Zimbabwe, and Tanzania was chosen to represent average countries since its economy has not been expanding as fast as official figures suggested. A desktop survey was undertaken to inform this study where data were collected from annual reports, newspaper articles, journal articles and policy briefs on globalisation, FDI and FREI. Such information provided insights into the issues relating to implications of globalisation on FDI and FREI in selected cases. Content analysis was used to analyse the data where themes were identified from the document analysis pertaining to the objectives of the study.

2.6 RESULTS AND ANALYSIS

Although African nations are sovereign states with the powers to govern and handle their own matters, their policies and actions also affect how they are faring in the globalised economy. This, therefore, means that they are affected by what happens outside their own countries and regions. In terms of FDI, countries are competing on the international market as it is known that capital flows to where it makes a return. An analysis of SSA and NA in terms of how they are or can attract FDI in the globalised world is as presented in the forthcoming section.

Sub-Saharan Africa

Geographically SSA includes all those countries situated completely or predominantly south of the Sahara or the Sahel. Relevant regional data for the region can be structured according to development indicators. The proportion of poor people in the region is considerably higher than in NA. Research shows that about 390 million households in SSA still live off less than US\$1.25 per day. Despite past intensive reform and development efforts, large material deficits, especially for education and health, services continue to shape the people's livelihood. The environment of SSA is undoubtedly urbanising rapidly.

Tanzania

Tanzania is part of the East African Community (EAC) and has a population of about 41.5 million, with 945 000 km² of land. Tanzania is a former colony of Great Britain and it managed to liberate itself in 1961 and three years later united with the island group of Zanzibar, situated directly off the Eastern coast of Tanzania in the Indian Ocean. The combination of Tanzania's mainland and the island of Zanzibar form the United Republic of Tanzania. After independence in 1961, the expectations of improvement of living conditions and politics and economy was high. However, these expectations were not met, resulting in civil wars, ethnic hostilities, corruption, political mismanagement and countless human rights violations (Rothenberger, 2010).

The influence of globalisation was, however, experienced to some extent. The five scopes by Appadurai (1996) have contributed in various ways. The *financescape* in Tanzania caused global capital to be transferred from various parts of the world once the politicians in Tanzania managed to outdo unfriendly economic land ownership policies. As a result, Tanzania witnessed a radical policy turnaround in the mid-1980s after more than two decades of command economic policy. Tanzania's government shifted its economy to freemarket structures and by 2005, more than 300 former public enterprises had been successfully privatised. From this move, the country improved in the amount of donor agencies and foreign investors. As a result, Tanzania received a total of US\$1.5 billion in economic aid in 2005 alone (Rothenberger, 2010). The volume of FDI increased from 2006 to 2007 by US\$600 million. However, the limitation with FDI associated with aid is that it does not significantly boost economic development as aid comes with conditions and, at times, such conditions restrict certain development projects due to the clauses set in such aid agreements.

Tanzania's ethnoscope is diverse, constituting Muslims and Christians who co-exist. Such diversity also contributes to diversity in infrastructure needs and FREI owing to the coastal nature of the country that boosts tourism. This shows that the diversity and tolerance of the country can attract FREI and citizenry from all parts of the globe to come and visit, work or

seek refuge in the country. All the factors herein actually give a plus and aid the confidence in bringing FDI in Tanzania.

The *mediascape* contributes to bringing reports that, despite promising figures, Tanzania's economy is still in a precarious state and its population undoubtedly remains poverty-stricken. It has been reported in recent times that an estimated 90% of the populace live in poverty and 36% live below the national poverty datum line (Rothenberger, 2010). However, tourist destinations and diverse culture in Tanzania have been widely publicised, thus, promoting the global appreciation of the country with its wildlife and coasts. In this way, there has been some investment related to the tourism sector that eventually cascades to real estate development. To some extent, *ideoscape* is resulting in adverse criticism that Tanzania's economy is highly fragile because of its dependence on externalities.

Using *technoscape*, Tanzania has been able to sell its products and has also been importing from other countries. Although this has led to a significant deficit on the country, *technoscape* is helping in the facilitation of trade, amongst other advantages. Finally, the outlook of Tanzania's economic performance is encouraging despite its dependence on several factors. Tanzania has strongly encouraged foreign investment ever since its implementation of economic reforms since the mid-1980s. It

has, therefore, formally opened its gates to foreign investors in all sectors, including real estate.

Real estate investment management firms are facing a plethora of challenges in management of portfolio, asset and property in Tanzania. This is basically due to ownership structures of land and productive assets. Inconsistent land policies in many African states are causing the environment to be fragile, hence, the call for confidence. For example, as relict of the socialist era, all land in Tanzania has remained state-owned since 1967 and is still vested in the president as the trustee for and on behalf of Tanzania's citizens as regulated in the Land Act No. 4 of 1999 (as amended in 2002). In consequence thereof, freehold title does not exist, and land ownership remains strongly restricted. This continues to be a considerable barrier to both FREI and foreign investment in general.

South Africa

The population of the Republic of South Africa (RSA) is 50.7 million, while the total area is 1.22 million km². The country has 11 official languages and the rand being it's the official currency. Compared to other countries within the region, is the republic is highly developed. It has now been included into the category of newly industrialising countries (Rothenberger, 2010). FDI inflows into the RSA rebounded by US\$3.2 billion in 2017.

Globalisation has contributed immensely in the state of real estate development and management in the RSA. It was noted that the financial, capital and real estate markets in the RSA have reached the required level of maturity to offer foreign institutional and private investors attractive indirect real estate investment possibilities. Under *financescape*, the RSA, alongside North African countries, , for instance, attracted a substantial number of foreign real estate investors during previous years. The discrepancies between the RSA and other countries in SSA, therefore, also become apparent within a real estate-specific context. This supports the notion that global institutional investors consider many factors, judging from the *scape* as proposed by Appadurai (1996) to conclude on investing or not/

All the other *scapes*, as propounded by Appadurai (*ibid.*), that is, *financescape*, *ethnoscape*, *mediascape*, *ideoscape* and *technoscape*, remain uniform in terms of experience postured in all countries under SSA. Further, while the financial, capital and real estate markets in the RSA have reached the required level of maturity to offer foreign institutional and private investors attractive indirect real estate investment possibilities, the supply of indirect real estate investment vehicles within the remaining markets of SSA is limited (Rothenberger, 2010). Finally, due to relaxed clear laws in the RSA, management firms of property, portfolio and assets have clearly been able to make profits, transfer the profits and enjoy benefits of globalisation while operating in the RSA. It should, however, be noted that the

country sometimes experiences disturbances due to politics, but generally, it provides a good case in SSA as a model country with good conditions that attract FREI and support globalisation.

Zimbabwe

Zimbabwe is a land-locked country with an estimated population of 16.5 million. Its total land area is 390 759 km². The country uses a multi-currency system and has three major languages. FDI was very low during the leadership of President Robert Mugabe. However, after the coming in of President Emmerson Mnangagwa's administration in November 2017, FDI commitments surpassed US\$14billion. Of the commitments made, it is difficult to ascertain how much has been received to date in reality. Justifiable reason to assume severe differences in growth rates within the region is noted when the two countries are assessed, for example, Angola recorded annual real GDP growth rates of 18.6% in 2006, 20.3% in 2007 and an estimated 14.8% in 2008, whereas Zimbabwe's downswing has sadly continued with annual real GDP growth rates of -5.4% in 2006 and an estimated -6.1% in 2007 (no reliable data is available for 2008 with regard to the problematic political situation in Zimbabwe) (Rothenberger, 2010). Political tensions and civil unrest in Zimbabwe since the early 2000s have negatively impacted on the FDI in the country as the environment has increasingly become hostile to foreigners who have for long been accused of intending to recolonise the country using financial means. The result has been

limited FDI as investors fear losing their investments. The implications have been notable on real estate development that has suffered immensely. Corruption and state capture that are also rampant in the republic have also resulted in low investment and ultimately limited development of the real estate sector.

The average costs of simply registering a property in Zimbabwe amount to 25% of the respective property's value. Further, due to policy inconsistency, currency inconsistence amongst a host of other challenges, there is a paucity in nuanced data regarding facts and figures that can be used in measuring growth resulting from FDI. It is, however, necessary to point out that hopes have been refreshed within the country and many other global institutional investors are seriously considering making real estate investments within the country. As with other SSA states, except the RSA, the influence of globalisation is being felt because of functions of various scapes that it the *financescape*, *ethnoscape*, *mediascape*, *ideoscape* and technoscape. Further, the ownership structures of land are also similar to that used in Tanzania and the explanation cannot be repeated since it has been explained in the case of Tanzania herein. It should be noted that rural and tribal lands are also vested in the president. This is not favoured by global institutional investors of real estate. As a result, global investors take it as a threat that can affect their management function for their real estate investments. However, in recent times, for those investors operating in the country, some special permits and agreements would have been obtained from

government prior to commencement of any work as this is the procedure that ensures and protects both sides.

North Africa

The Saharan Desert separates North Africa and the rest of the region. North African countries are often assigned to the Middle East region within the inquiry of economic data. The region has about 362 million people and Arabic is the common language. It should, however, be noted that only South Africa, alongside North African countries, was for instance, able to attract a substantial number of foreign real estate investors during the period 2007.

Egypt

Egypt has been ranked first in FDI flows in Africa. FDI in Egypt increased by US\$1.7 billion in June 2018 compared to an increase of US\$2.3 billion in the previous quarter. The country's nominal GDP was reported at US\$60.4 billion in June 2018. The capital of Egypt is Cairo. Egypt, whose population was 97.55 million in 2017 (World Bank, 2017), use the Egyptian pound its currently. The Arab Spring has caused tensions and civil unrest in North Africa and the implications of such tensions has been a decline in FDI. However, the vibrancy of the tourism sector in Egypt, owing to the monumental pyramids that are a beacon of success with regards to attracting tourists, has managed to sustain the FDI as the country remains a world-class tourist destination. Opportunities for real estate development exist with regards to construction of hotels, housing and commercial facilities for the tourists.

From the Egyptian profile given in this study, global capital is attracted to investment in Egypt. It can arguably be so, because of its sound economic policies that are open to the international community. The country might have had enough time to recreate and proffer a good international image that safeguards the investments of institutional investors. Also, the huge workforce can be an attraction of FDI and FRFI. An investigation into the state of the country's affairs shows that the influence of globalisation has been positively embraced and resulted in the country managing to be a safe destination. Further, real estate investment management firms in recent times, are perfectly executing their management for assets, portfolios and property in Egypt and they are free to repatriate their investments. They are also free to transfer profits from the country to their respective regions or countries. These, as a result, are the characteristics serious institutional investors are looking for when looking for safe investment destinations.

Libya

The FDI stock recorded in 2015 was 18.462 million that did not change up to 2017. The Kingdom of Libya, originally called the United Kingdom of Libya, came into existence upon independence on 24 December 1951 and lasted until a coup d'état led by Muammar Gaddafi on 1 September 1969. Libya has a total area of 1 759 540 km² and a total population 6 653 210 as at July 2017. The capital of the country is Tripoli (World Bank, 2017). Libya is basically Muslim, constituting96.6%. The ethnic groups are Berber and Arab (97%) while 3% include Greeks, Maltese, Italians, Egyptians, Pakistanis, Turks, Indians

and Tunisians. Libya has proven oil reserves estimated at 48 billion barrels, making it a top 10 oil rich country in the world.

Libya has been able to attract FDI, just like the rest of NA countries. However, it should be acknowledged that the natural resources endowed in the Libyan land played a huge role since oil is used to power many functions in the world. This saw an influx of investments coming in the country. However, in recent years, the civil unrests in Libya have negatively impacted on FDI as the country has become a war zone, hence a risk for investors to invest in real estate when there is armed conflict.

Further, marketing using *mediascape* and *ideoscape* played a huge role in marketing the country to the rest of the region. This, however, also attracted enemies as many vied to have a piece of the Libyan national cake. The influence of globalisation was also experienced by active influence of *financescape*, *ethnoscape* and *technoscape*, already experienced in the rest of the region. As a result, just like the rest of the NA region, Libya's real estate investment management firms did not have challenges in managing their property, asset and portfolios. It should, however, be noted that the country had political challenges that escalated to political violence. This, had a negative effect that kept away global investors. For the investors that remain, they usually obtain very high yields since the risk in general will also be relatively high.

Table 2.1: A synthesis of the Results (Authors, 2019)

Country	Regulation	Independence	Currency	Male Ulabilable
Country	(Million)	year; previous		Part rightights
		coloniser		
Tanzania	41.5	1961. Britain	Tanzanian	There are many real estate investments.
Tanzama	41.3	1901, Dritain	Shilling (TZS)	This is due to ownership structures of land
			Similing (123)	and productive assets.
				_
				The land policies are not consistent. The environment is fragile, for example, as
				relict of the socialist era, all land in Tanzania has remained state-owned since
				1967 and is still vested in the president as the trustee.
				There is a call for confidence building
				programmes.
South	50.7	1996, Britain	South African	
Africa			Rand (ZAR)	markets in the RSA have reached the
				required level of maturity to offer foreign
				institutional and private investors attractive
				indirect real estate investment possibilities,
				The supply of indirect real estate
				investment vehicles within the remaining
				markets of Sub-Saharan Africa is limited.
				Xenophobic attacks diminish investment
Zimbabwe	16.5	1980, Britain		Rural and tribal land is vested in the
			(ZWL)	president. This does not attract global
				investment in real estate.
				Global investors take state ownership of land as a threat that can affect their
				management function for their real estate
				investments.
Egypt	97.55	1922. Britain	Egyptian	Egypt has been ranked first in FDI flows in
Egypt	27.33	1924, Britain	Pound (EGP)	Africa. This is because of its sound
			round (BGP)	economic policies that are open to the
				international community.
				The country might have had enough time to
				recreate and proffer a good international
				image that guarantees the investments of
				institutional investors.
				Also, the huge workforce can be an
				attraction of FDI and FREI.
Libya	6.6	1951, Italy	Libyan Dinar	
	_		(LYD)	Libyan land played a huge role since oil is
				used to power many functions in the world.
				This saw an influx of investments coming in
				the country.

2.7 DISCUSSION

It is common cause that the risk-return relationship of each country is affected by its own unique institutional environment and, therefore, there are potential benefits for investors (Tom and Austin, 1996). Evidence emanating from the study shows that, indeed, real estate asset managers are aiming to maximise capital gains and increase returns while safeguarding their investments. However, they have been neglecting some nations around Africa. Further, Tom and Austin (ibid.) argue that given the significant differences in the institutional framework across countries, there are likely impacts on returns and that this deserves the attention of institutional investors (Appadurai, 1990, 1996). The main reason real estate managers are neglecting many SSA states include poor laws, poor respect for human rights, disregard for property rights, corruption and civil wars. Global investors greatly rely on the scapes by Appadurai (1996) to determine which countries to invest in. This, therefor, means that for FDI to increase in SSA and NA regions, factors used to ascertain whether the environment is conducive or not must be positively addressed. From the cases reviewed in this study, it can be concluded that in SSA, except the RSA, nations are struggling to come up with good investment laws and poor governance, defining their poor standing in attracting FDI. There are a series of serious economic and political reforms needed to improve the image of SSA in the eyes of investors.

A similar study examining the extent to which real estate returns are driven by continental factors was also conducted (Eichholtz et al., 1998). Eichholtz et al. (1998) argued that if real estate returns are driven by a continental factor, then global investors should look for diversification opportunities outside their own continent. It was concluded that for the Asia-Pacific region, real estate returns are not driven by a continental factor. The results suggest that for European, North American and Asia-Pacific real estate portfolio managers, the Asia-Pacific region provides attractive international diversification opportunities. Therefore, because of the political and security issues noted, global investors prefer NA to SSA when considering investing in Africa. However, they may prefer other regions when the options are from anywhere around the world. These observations hammer on the point that fundamental factors are considered by institutional investors when deciding of where to put FREI in the world.

2.8 Policy Options, Recommendations and Conclusion

Globalisation has had a major influence on the FDI in the selected African countries where the effects are evident from the case studies presented. With globalisation, there has been some significant contributions of the FDI to real estate development, a situation that has been attributed to several factors, for example, oil in North Africa and the booming industries and farms in South Africa. On the other hand, civil unrest and political uncertainty has, to some extent, stifled the

growth in FDI and, subsequently, FREI. Examples include the volatile political environment in Zimbabwe, characterised by violence, state capture and corruption, that has resulted in investors holding back from investing in the country over the past years, especially in the new regime of President Mnangagwa. The same applies in North Africa, where political tensions and civil unrest in the last years has had devastating effects on the development and management of real estate, let alone attract funding for the sector. It is concluded that the effectiveness of real estate asset management is at stake if the terrain of media and technological utilisation, understanding of the global financial markets and how race and ethnicity determine real estate markets are not fully captured and understood.

The African continent must understand Appadurai' (1996) clustering of globalisation to create resilient and sustainable real estate markets in the region. African states must be careful in the domestication of the strategies ensuring that they are amenable to absorbing shocks created by both internal and external forces, including financial crises. They must do away with inconsistencies in law application and disregard of 'rule of law' to earn global trust, for "trust is earned by deeds". Land ownership in most countries is not clear to attract investment. Use of leasehold instead of freehold title is a barrier to both FREI and foreign investment. There must be a clear land-use tenure to attract private capital. Also, African states base their

decisions on the liberation struggle that, in most cases, retard the attractiveness of their economies. Such decisions, for example, land reform, have potential to scare away global investment. The risks of land reform based on the past usually lead to chaos. It is, therefore, recommended that policies be objective and less political.

Chapter 3: Service Delivery and the Local Government Taxation Systems in Africa: Practice, Scope and Options

HENRY T. GURAJENA, INNOCENT CHIRISA, LIAISON MUKARWI & ABRAHAM MATAMANDA

3.1 CHAPTER SUMMARY

This chapter seeks to systematically discuss service delivery and local government tax systems with a view to assess the practices in African countries and scout whether there is scope for improvement amid an array of emerging options, including taxing the informal sector, participatory budgeting and capitalising on land value capture. It draws lessons from other regions, particularly Asia and Latin America, where these options have been applied and vielded immense success. The chapter comes in the context of paucity of literature in the African region to demonstrate ways to improve service delivery (including road infrastructure development and maintenance, water supply and augmentation, housing and shelter provision and the development of physical markets) by innovative means that harness financial resources through negotiations and developing efficient and equitable constitution systems. chapter is based on a desktop study that uses literature review,

document review and thematic content analysis. In urban areas, generally, the demographic dividend ought to be the riding factor by local government in making sure that citizens and residents contribute to the development of their areas. Participatory budgeting brings ownership and satisfaction to the raising, management and accountability of financial resources harnessed by local governments. Africa, however, faces several challenges that create unnecessary hiccups to implement some of the processes that work well elsewhere. Among the noted handicaps are corruption, financial mismanagement, residents and protestation by residents, co-optation, and interference by the central government on local government affairs, and the generally apathy by citizens to participate in matters that affect them with respect to revenue collection and, ultimately, service delivery.

3.2 Introduction

This chapter seeks to systematically discuss service delivery and local government tax systems with a view to assess the practices in Africa and scout whether there is scope for improvement amid n array of emerging options, including taxing the informal sector, participatory budgeting and capitalising on land value capture. The research question guiding this chapter is: What potential does the African

continent hold pertaining to the advancement of initiatives that improves local government taxation and through the multiplier effect service delivery too? The chapter is based on a desktop study that uses literature review, document review and thematic content analysis. The researchers considered many publications with direct relationship to issues of participatory budgeting (PB), taxation and land value capture in Africa. The major reason of adopting such a strategy was to avoid duplication of effort. This yielded the main advantage in which the researchers just obtain published reviewed data and use it to deduct sense that greatly was applied and benefited the study. The document reviews helped in the comparison of data to adopt and use in the study. Reviewing various documents gave the researchers a good base to choose which documents would be found fit to be included in this study. Themes formulated in the literature consulted were adopted and analysed in this study. The chapter is organised as follows: background, context and literature towards service delivery and the local government taxation systems in Africa. Results and discussion follow after this. This section entails issues of informality in Africa, land value capture, common instruments used in land value capture, motivation for taxing households in Africa and PB issues are described at length. Finally, lessons for

Africa, larger implications of the research and the conclusions and recommendations section will then follow.

3.3 BACKGROUND, CONTEXT AND LITERATURE

The chapter comes in the context of paucity of literature in the African region to demonstrate ways of improving service delivery through innovative means that harness financial resources by negotiating and developing efficient and equitable constitution systems (Swedberg, 1991; Fukuyama 2004; Levy and Kpundeh, 2004). The services include road infrastructure development and maintenance, water vlagus and augmentation, housing and shelter provision and the development of physical markets. With respect to literature review and theoretical underpinnings, the chapter draws lessons from other regions, particularly Asia and Latin America, where these options have had immense success (Baiocchi, 2005; Collins and Chan, 2009). Through support for shared learning and knowledge sharing, Africa is bound to benefit from lessons adopted from other regions since they have proved to be useful in other parts of the world. For example, the participatory budgeting concept formulated and adopted in Brazil in the late 1980s aimed at working towards redistribution of mechanisms that favoured the poor (Baiocchi, 2005).

As it is known, land is a natural resource and a factor of production and, therefore, should be used conservatively (Peddle, 1994; Gihring, 2009). Land-use should be justified and transactions involving real estate must have monetary payment to make good all the interested parties and stakeholders in the piece of land. A tax on land values produces economic and social consequences different from a tax on improvements (Peddle, 1994). The taxation principle has been widely embraced as a base for compensation to the use of land. Any tax tends to diminish the base upon that it is levied (Gihring, 2009). Hence, what is in the public's interest is desirable and should be taxed less, for example, commerce, job growth and investment, and what is undesirable, should be taxed more, for example, pollution, traffic congestion, land consumption (urban sprawl), and energy resource depletion (ibid.). What has not been clarified pertains to the taxes on land, whether they are desirable or undesirable.

Gihring (*ibid.*) has examined the proposition that a land value tax is an effective method to promote transit-oriented development and raise revenue to finance public improvements within urban rail transit station areas. Urban rail transit is just an example of a publicly admired good. Generally, the concept here is that land taxes are supposed to raise revenue to fund

the development of publicly admired goods. Further, the ideology of taxing land within the jurisdiction of a local authority should be borrowed from the past successes realised and applied in developing nations. It can be argued that in recent times, local authorities in developing countries in Africa have been haphazardly introducing taxes on land. At the end of the day, the land taxes will not be systematic, making it difficult for billing and tax collection. This calls for a thorough investigation focusing on the impacts and consequences posed by local governments in the African countries. One important means to harness management resources by local government is employing the PB approach (He, 2011). Participatory budgeting has been described as a form of active civic engagement that, over the years, has enabled and helped citizens to participate in budgetary decision-making processes in their respective countries and communities. He (ibid.) has defined PB as a mobilisation strategy of the political left whose mandate is liberation, self-governance and radical democracy. When PB was first introduced in China, the government reshaped its core ideas by projecting it as a programme to curb corruption, improve administrative efficiency and enhance state capacity (Collins and Chan, 2009).

Considering what has been reported by Collins and Chan (*ibid.*), PB is a tool for administrative incorporation, expanding participation and narrowing contestation. Behind China's PB are three distinctive logics entailing administration, political reform and citizen empowerment (He, 2011). In the context of this study, some local authorities in Africa act as if they are 'begging' and are 'undecided' pertaining to the adoption of the PB strategy yet, on its own, PB has proved to be effective in the pioneering countries. Positive results will be enjoyed if the PB strategy is embraced by developing countries in Africa. Benchmarking with what has been previously achieved, much can be learnt from the PB cases, especially considering the results that have been obtained in Brazil. The major players in the urban economies of Asia, Latin America and Africa are the informal sector (Schneider, 2002). It is prudent to consider them as a form of harnessing financial resources, hence the call for taxing the informal sector. Much literature on informality has been created. Researchers view informality differently but of interest are Roy and Al Sayyad's (2004) and Roy's (2005) views that informality is a mode of urbanisation and should be regularised. The debate over the meaning and significance of the informal sector waxes and wanes, the concept appears to have a life of its own (Mead and Morrisson, 1996). Mead and Morrisson, (ibid.) further argue that officials in the government,

development analysts, donors and international agencies continue to use the term as if they know what it means but, in actual fact, they do not know. This justifies the need for government, both central and local, to understand informality and its impact.

In Africa, informality is on the back of the international development and urban planning agenda (Roy, 2005). Mead and Morrisson (1996) identified three facets of the concept of informality, these being legality, thus, registration and payment of taxes, amongst other things, enterprise size and level of capital intensity. In countries where the formal economy does not perform well, the informal economy usually does. However, it is generally accepted that it is difficult to prove this claim because the informal economy is difficult to account for and make quantifiable assessments. Therefore, it is important to note that the informal economy is an additional avenue that lies idle with much potential to be lucrative if explored in a systematic way.

3.4 RESULTS AND DISCUSSION

In urban areas, the demographic dividend generally ought to be the riding factor by local government in making sure that citizens and residents are contributing to the development of their areas (Schneider, 2002). Participatory budgeting brings ownership and satisfaction to the raising, management and accountability of financial resources harnessed by local governments. Africa generally faces several challenges that create unnecessary hiccups to implement some of the processes that work well elsewhere (Hansen, and Vaa, 2004). Among the noted handicaps are corruption, financial mismanagement, residents and protestation by residents, co-optation and interference by the central government in local government affairs, and the general apathy by citizens to participate in matters that affect them with respect to revenue collection and, ultimately service delivery as noted in many African countries on various media reports. The main results of this study pertaining to the key elements initially considered are explained in following paragraphs.

Informality in Africa

Informality is a constant feature in many African states (Mead and Christian, 1996; Hansen and Vaa, 2004). Informality exists in various forms. Schneider (2002) has noted that crime and other unacceptable activities in the economy, especially informal economic activities, are a fact of everyday life around the world, especially in Africa. It has been observed that most societies attempt to control these activities through various

measures that include punishment, prosecution, economic growth or education (*ibid.*). Gathering statistics about who is engaged in informal activities, the frequencies with which these activities are occurring and the magnitude of them is crucial in making effective and efficient decisions regarding the allocations of a country's resources in the area. Unfortunately, it is very difficult to get accurate information about these underground or as a subset of informal economic activities on the goods and labour market, because all individuals engaged in these activities do not wish to be identified. Hence, the estimation of the informal economy activities can be considered as a scientific passion for knowing the unknown (*ibid.*). The same challenge also has caused researchers to observe and make intelligent guesses to be able to give an educated guess when quantifying levels of informality.

Around the world, it is on record that informality is difficult to quantify, especially its levels in the developing, transitional and developed worlds. As if that was not enough, Schneider (*ibid.*) observed that most scholars face a challenge even defining what they refer to as informality. In general, one can never fully explain a concept that they cannot define. However, a comprehensive study was done by Schneider and Enste (1997) as referenced in Schneider (2002) concentrated on unearthing how much informal economy the contributed to total levels

produced nationally. For that research to be simplified, a working definition for informality was all unregistered activities in an economy that contribute when an official Gross National Product (GDP) is calculated (Schneider and Enste, 1997). Further, three ideas are said to be at the heart of the concept of informality that involve legality, thus, registration and payment of taxes, amongst other things, enterprise size and level of capital intensity (Mead and Morrisson, 1996)

During the period from 1999 to 2000, the size of the informal economy in Africa (in percent of GDP) was 42% (Spiro, 1993). These high levels can be explained only by the fact that, in the middle of recession and difficult economic climates, people normally resort to informal economic activities to make a living (ibid.). Although the informal activities can help to sustain the livelihoods of citizens in an economy, the states suffer by being deprived the right to obtain its revenue through taxations. This is because the informal economy is unaccounted for. Table 3.1 shows the countries that went to extremes in their levels of informality. Although the assessment was done more than two decades ago, it can be argued that it is still applicable as some countries have not properly dealt with informality. Generally, these rates of informality simply indicate that much needs to be done when taxing them, so that informal economic activities can help in the advancement of infrastructure in an economy.

Table 3 1: Rates of informality in selected African countries from 1999-2000 (Spiro, 1993)

Country	Rate of Informality
Highest Rates of Informality	
Zimbabwe	59.4%
Tanzania	58.3%
Nigeria	57.9%
Middle Field Rates of Informality	
Mozambique	40.3%
Cote d'Ivoire	39.9%
Madagascar	39.6%
Lower End Rates of Informality	
Botswana	33.4%
Cameroon	32.8%
South Africa	28.4%

Land Value Capture

Land is finite and is a precious resource in African countries and even forms part of the factors of production. Thus, it calls for a conservative approach when using it. Land must be utilised in an efficiently manner. Basically, administrators and owners of land obtain value from the pieces of land. This process introduces the 'land value capture' concept. Generally, value capture involves harnessing the land-value gains that materialise because of additions of special improvements to benefit a specific area (Gihring, 2009). In other words, 'value

capture' is used interchangeably with 'betterment levy'. Justification for the term being the fact that *ad valorem* assessments of ordinary property taxes and is similar in conception to development exactions and impact fees (*ibid.*). Land value represents dimensions of real estate although they would be speculative. Land value is different from building value. Thus, value capture is a variation of an unearned increment tax and is based on the premise that property owners benefiting from a government-conferred locational advantage, should pay some portion of the cost of public improvements from which the added value is originally derived (Gihring, 2009).

These taxes basically are levied on citizens. Further, Colombia and Uruguay have built roads using value capture technique (*ibid.*). Also, Mexicali, Mexico, managed to replace its conventional property tax with a land tax that comes as a form of value capture (*ibid.*). Generally, it can be agreed that Africa now needs to stop theorising and move on to practise and implement the value capture techniques to be able to raise funding to install amenities necessary in the respective economies.

Further, it cannot be disputed that taxation is the best to facilitate the integration of state resources to fund state-building endeavours in developing countries (Levi, 1988). Of interest, Levi (*ibid.*) noted that the history of state revenue

production is also the history of the evolution of the state. This, in turn, supports the notion that whenever a state is effective in its taxation and revenue generation points, with proper governance, it would undoubtedly start to develop. Further, it is on record that taxes underwrite the capacity of states to carry out their goals because they form one of the central arenas for the conduct of state-society relations, and they shape the balance between accumulation and redistribution, giving states their social character (*ibid*/).

Braütigam (2008) examines the claim that taxation is the focus when talking about state-building. In the same book, three main questions across two broad themes of 'taxation and representation' and 'taxation and institutions' are inspected. The first element intended to unearth how taxes and any other sources of public financing affect state-society relations in the management of developing countries. The second enquiry pertained to inquire on the question: when revenue imperative will start to yield economic development? The last question intended to uncover the fundamental considerations involved in enabling the governments of African countries to be effective, equitable and sustainable in their taxation strategies (bid.).

The results obtained from the enquiry made by. Braütigam (*ibid.*) yield that on the first question, the major axis of debate is whether the taxation relationship either (a) is intrinsically coercive and, therefore, inimical to consensual governance, or

(b) provides an opportunity for the creation of consensual and representative government through 'revenue bargaining' between states and organised citizens. On the second enquiry, it was discovered that revenue imperative can produce a variety of institutional outcomes (ibid.). In some countries (and in some historical periods) revenue and related institutions are developmentally 'better' than in others (*ibid.*). And finally, on the last enquiry, few developing countries have yet succeeded in creating tax systems with high levels of both capacity and consent. Their tax systems are often regressive and distortionary and lack legitimacy. Tax administration is usually weak and characterised by extensive evasion, corruption and coercion (ibid.). In many cases, overall tax levels are low, and large sectors of the informal economy escape the tax net entirely (*ibid.*).

Common Instruments Used in Land Value Capture

Various instruments have been documented by scholars. For example, Braütigam (*ibid.*) documented the following instruments: a betterment levy must be introduced, this involves any tax that is charged to the citizens after an authority erects a servitude that increases the value of the land. A betterment tax is issued when authorities simply effect a regulation that positively affects the value of a property, for example, when they change the bulk-factor of a building by reviewing it upwards. Secondly, the sale of development rights by planning authorities powered by various acts, the authorities

can approve and sell the right to change use rural land to urban use, hence create more value from the urban new use, and the right to build at greater densities than normally would be allowed by zoning rules or height restrictions.

Thirdly, other avenues include public land leasing in which a planning authority in a country should lease out its land to other stakeholders and allow them to carry on uses that generate revenue. As they would be getting rentals, it will be an avenue of making good returns from the land they own. Leasing will also present them with the opportunity to cancel the lease and use the land the moment the local authority decides to use the piece of land for a specific function (*ibid.*). Fourthly, it may be necessary for a planning authority to allow the public sector engage in land acquisition and resale. This function is a method to capture the full value of the gains on land since usually in many parts of Africa, a certain tax accumulates (transfer duty/stamp duty) to the government each time real estate exchanges hands amongst citizens and households of the nation (*ibid.*).

More instruments, like land sales, enable the private sector to develop previously owned public lands and eventually, through the multiplier effect, benefit the whole nation and value of land will be captured as well (*ibid.*). Moreover, developer exactions have proved to be effective in other regions and these are requirements a local government places on a developer to

dedicate land, construct, or pay for all or a portion of the costs of capital improvements needed for public facilities as a condition for development approval (*ibid.*). Furthermore, impact fees are also used to capture land value. These fees are passed to cover the costs required when a new property development needs to take place (ibid.). When a new development takes place, existing infrastructure, like sewer pipes and water pipes, are strained. Therefore, it was noted that there will be need to match the service delivery even after a new development is constructed, thus, justifying the creation of impacts fees that aim to match service provision after new developments have been affected. Lastly, another simple technique involves negotiations and voluntary contributions in which parties agree that before the infrastructure development occurs, a rate would be paid by property owners in the area and this rate causally relates to the level of the improvement to be effected. The above techniques and instruments have proved to be effective in some regions and are only waiting for the African continent to adopt and learn from the cases. These have worked in capturing land values and, therefore, should be adopted by developing Africa countries. It can be argued that good results can be achieved, and these could improve revenue.

Motivation for Taxing Households in Africa

With assessments done so far, it can be generally agreed that Africa is calling for intense focus to be directed towards tax systems, especially on the land values. This is because land is one of the biggest assets and it constitutes a great percentage of the revenue-making bases for many African states. Basically, Africa is way behind in terms of infrastructure development (UN-Habitat, 2014). UN-Habitat (ibid.) reported that the infrastructure deficit in Sub-Saharan African cities is well understood since it has been unearthed that in recent times, there have been more than 200 million people. However, 62% of the region's urban population is living in slums. Furthermore, the rate of urbanisation in Sub-Saharan Africa is resulting in continued growth of poorly serviced areas. In essence, these rates on their own can interpret that somewhere somehow, authorities are not properly executing their functions. The new informal dwellers should be taxed so as to fund provision of basic services and pay for the land they would be informally occupying. On the other hand, it can be drawn out that Sub-African countries Saharan are making progress infrastructure provision the progress is not enough to deal sufficiently with backlogs in accessing basic services (ibid.).

Participatory Budgeting

Since the introduction of participatory budgeting (PB) in Brazil, one can guess that this topic has evolved around the world with many nations trying to incorporate the initiative, some obtaining good results with others experiencing challenges. It was reported that PB was one of the most successful initiatives that is collective and encompassing in nature that has worked for over 15 years (Sintomer, Herzberg and Röcke, 2008). Further,

it is asserted that since PB came to reality in Porto Alegre in Brazil, it has been adopted in other regions, like Latin America, where it is estimated that more than 6.25% of the municipalities in the region had introduced it by 2006 (Cabannes, 2006, as referenced in Sintomer, Herzberg and Röcke, 2008). It is also further attested that from the period 2006, PB spread to the entire globe (Sintomer, Herzberg and Röcke, 2008). Benchmarking from practises that have been widely embraced in many countries in different continents and further, making good results, one can note that the technique seems beneficial, if adopted. Further, as referenced in Sintomer, Herzberg and Röcke (*ibid.*), Habermas (1996) has insisted, for example, on the conditions for a good participatory deliberation. Others, in a post-Marxist tradition, have focused on the importance of participatory devices in and for social struggles.

One of the first people who observed the PB technique in Porto Alegre noted that the technique materialised because of a 'window of opportunity' directly attributed to the electoral success of the Labour Party (Abers, 2000). Scholars generally agree that the PB technique emerged in Brazil in the 1980s. Various scholars bring forth interesting discoveries pertaining to the management of local governments, for example, O'Donnell (1994) noted that the 1980s PB was felt in a context that was greatly different when compared with Western Europe countries, this being that Brazil is one of the countries in the world that has a system in which people earn incomes of

different margins and because of its 'delegative democracy'. O'Donnell (*ibid.*) further noted that the constitutionally guaranteed democratic institutions do not operate as intended, since politics and the administration are characterised by factors like corruption. Generally, PB has achieved results and, if implemented systematically, can also yield good results for the African continent.

Lessons for Africa

The purpose of this study is considering documents and literature on measures that could be adopted and benefit the African continent. Primarily, the African region is on the verge of benefiting from some of the recommendations discussed in this study the moment authorities change their thinking and perspectives towards developmental issues. Using international examples, case studies and policy propositions in other countries, the literature involved in the study can likely yield positive results for Africa if implemented accordingly and in similar circumstances. The most important points that should be reckoned will be placed mainly on the need to develop a well-functioning land market and taxation system and these arrangements may must include all or some of the explained components below:

It is now high time that African leaders become effective in the execution of their duties. If leaders are effective and efficient in executing their duties, they normally support all functions of the

state in shunning corruption. When a country overcomes corruption, it may possibly mean that when selecting officials to run the local government boards, there will be zero nepotism and favouritism in the appointment of these officials. Generally, at first this would be a milestone in ensuring government is effective when executing functions. There will be a sound institutional framework that yields a clear national policy, hence initiating a very strong local government and perpetuate the formation of well-established private developers, who will, in turn, be able to invest their finance and achieve high infrastructure development levels within a nation.

African countries should allocate a greater portion of their budget to the appointment of trained and qualified planners who should be able to clearly demarcate land-uses in their respective jurisdictions. Since planning is an art that involves determining land-uses after considering the technical and political influences in decision-making, it can be argued that all African countries should heavily review planning laws and put more resources in ensuring that their respective regions are well planned. To be able to effectively levy taxes on land, land-use should be clearly declared, and this makes it easy for stakeholders to even conservatively plan ahead and. Each planning authority should be tasked with having updated local development plans, master plans and regional plans for the regions they serve. Local governments in the respective African countries should also work towards achieving systems that

make it easy for the government to manage the property development process.

For local authorities to be effective in controlling service provisions in their respective countries, they must own and control significant land resources. This will give them the absolute rights in determining what development could be done on a piece of land. Historically, many parts of Africa were colonised by settlers especially, from the European regions. However, guite a significant number of these African countries managed to regain back their independence. Most of them now have full rights to their land disposal. On their own, local authorities should now practise their rights on the pieces of land without any external interference. These rights vary across countries. In Zimbabwe, the Regional Town And Country Planning (RTCP) Act (Chapter 29.12) allows local planning authorities to compulsorily acquire any land as long as the use will be in the public interest. Therefore, this act gives local authorities the control over its land since it can apply its rights any time it so wishes.

Further, the strategy of local planning authorities inviting other stakeholders and players in the advancement and installation of infrastructure has proved to be fruitful in other parts of the region (Braütigam, 2008). It is important to note that many financiers can release resources only when they identify a lucrative secure investment opportunity. It is only when the

local authorities restructure their organisations and invite established private and community-based developers to help in the financing of projects. In many countries, Public-Private Partnerships (PPPs) have proved to be helpful in improving levels of infrastructure development (*ibid.*).

The Larger Implications of the Research

This chapter makes a practical contribution in expanding the existing literature on the Land Value Capture technique in raising revenue for local authorities. It also shows the importance of implementing the widely embraced useful technique of PB that has yielded documented results since its inception in Brazil. The study can be a great instrument to conscientise local authorities on the benefits that can accrue to them and the nation at large after resolving strategies to tax the informal sector. It can be summed up that local authorities in Africa are begging for refocusing of attention to be aimed at addressing the three main results that can come after land value capture is implemented together with PB and tax impacts, especially on the informal sector.

Further, African local governments need to capture land values. Since value capture is a public financing technique which, if used systematically, can manage to capture an increase in values of land directly attributed to a new public investment or from the exercise of public decision-making power, for example, the change of use, bulk-factor alteration or even the approval of

a land-use. Smolka (2013) has argued that land value capture has not been greatly applied in Sub-Saharan Africa but, has been applied elsewhere in the Global South. It was also noted that this approach to financing urban infrastructure has been employed in many countries.

Above all, the land value capture principle does not only benefit the local planning authority, but also a private landowner, if the general land in which one's piece of land is situated appreciates in value because of the activities directly undertaken by the authorities. Further, after benefiting from the increased land value, a landowner should be willing to share a portion of the land with the relevant public authority, especially in cases where money was directly provided by an authority to fund the development of the land or to develop existing infrastructure.

The UN-Habitat (2014) reports that in the developing world, the concept of land value capture is less straight forward compared to developed world. Of particular interest, the Sub-Saharan Africa context is basically ineffective because of weak land-use planning systems, dysfunctional land markets. As a result, the cities in the African region are now experiencing rapid transitions when it comes to demographic changes as people are migrating to urban areas, economic policies, technological progresses, and the political environment, that can pose significant challenges for real estate markets (UNHABITAT, 2014).

Further, it can also be noted that in Latin America, cities are urbanising quickly and, as this happens, the pressure for supply of serviced land is increasing (Smolka, 2013). Brazil and Colombia are notable implementers of land value capture policies within their cities (Paulais, 2012; Smolka, 2013), with more experience being adopted from Mexico. As referenced in Phase (2015), Peterson (2009) noted that Colombian cities are well known and comfortable with the way they use land value capture to fund their urban projects. Some countries in North Africa and the Middle East have large areas of land that are publicly owned. This puts them in a strong position to apply land value capture instruments with some reported success. Further, an example was given in Cairo (Egypt) in which a large real estate development named 'Madinaty', encompassed a public-private relationship between the state and the Alexandria Company for Urban Development (Phase, 2015).

So, generally, it can be noted that private developers may be gunning for opportunities that will come from the rapid growth of an African middle-class and the consequent demand for residential property. However, in recent times, the development market in Sub-Saharan Africa generally has had few active formal developers due to the constraints mentioned throughout the entire study. Regarding access to finance, there is a positive trend, but of a low base, and access to finance for property development in most Sub-Saharan Africa countries remains difficult.

3.5 CONCLUSIONS AND RECOMMENDATIONS

The study makes practical contribution to planning authorities throughout Africa, especially in those countries that are still lagging in sustainable infrastructure development. It equips the authorities with ideas that can help them make full use of resources they own, for example, land to increase service delivery and to achieve sustainable infrastructure development levels. The base of the study advocated planning authorities to be effective in taxing both formal and informal activities in the nation thev service. The study conscientises stakeholders on alternative uses of land that can result in effective taxation mechanisms. Further, policies and procedures pertaining to ways of dealing with informality in Africa were described decision-makers could benefit greatly and methods emphasised. intellectually on Other practises worldwide, for example, the participatory budgeting technique, have been discussed at great length and these would help to educate public policy-makers on alternatives available when adopting strategies in Africa that could yield positive results and help in building nations.

Chapter 4: Implementation of the Management Triad by Real Estate Investment Firms in Zimbabwe

HENRY T. GURAJENA & INNOCENT CHIRISA

4.1 CHAPTER SUMMARY

This chapter examines and discusses challenges and prospects in implementing the management triad (property management, asset management and portfolio management) in Africa. It motley review of professional roles and provides responsibilities of management triad for the regions under consideration, taking lessons from other African countries. The overall aim is to obtain an intimate appreciation of professional roles, responsibilities and interests of the management triad when working with investor organisations. Overall, missing in literature is an understanding of the link, and dynamics thereto, real estate investment firms and between portfolio management, asset management and the property managers' responsibilities for the investment firms to achieve their financial goals. To provide a vivid picture of the story, a case study of Zimbabwe is engaged. The study engaged interview and case approaches to collect data and review experiences. Evidence emanating from the study shows that, indeed, real estate investment firms are aiming at safeguarding their

investments, maximising capital gains and increased returns However, they do not have a friendly way of making use of the management triad to help achieve their objectives. Under results, three major private players listed on Zimbabwe Stock Exchange (ZSE) and the largest pension fund were thoroughly investigated and results noted. It is concluded that the effectiveness of real estate investment firms is at stake if the current approach of managing the assets is perpetuated. Through sharing and adoption of knowledge created in successful global institutions, local real estate investment firms stand to benefit from adopting best international practices in the use of management triad.

4.2 Introduction

Investments and returns are the main issues frequently used in modern-day business. Each party in an investment has its checklist. The Modern Portfolio Theory (MPT) suggests that investors base their allocation decisions on the expected return and risk of the investments, and diversification benefits, measured through the correlation of returns with other assets in the portfolio (Markowitz, 1952). In international investments, the risk comprises of the variance of expected returns and currency risk. Real estate is amongst some of the commonly favoured investments as it can increase in value over time and

is an effective hedge against inflation. As a catalyst in management of real estate, a management triad is used by international institutional investors to control and monitor real estate investments. On its own, the management triad experiences some challenges and prospects in implementing the full operation in Africa. The chapter attempts to provide a motley review of the professional roles and responsibilities of management triad for Africa, taking a macroscopic investigation on experiences in Zimbabwe.

4.3 THEORETICAL FRAMEWORK

Various concepts can apply in this chapter. However, the most important one adopted in the chapter is the MPT, illustrating the importance of diversification in the reduction of portfolio risk (*ibid.*). The MPT is based on the adage that "one ought not to put his/her eggs in one basket" (Dubben and Sayce, 1991). The benefits of diversification and further quantifying it in terms of portfolio risk and return are explained by the theory. In broad terms, assets within a portfolio that do not move in the same direction in terms of returns, provide greater diversification benefit in comparison to those that move in the same direction. The decision on that assets are to be invested in, how they will be managed and the actual people who will manage them is the core purpose of this enquiry. However, even with many assets within a portfolio, such as commercial property portfolio, there is no way one can completely avoid all risk through

diversification. All four asset or property classes, i.e. retail, office, industrial and hotels are affected by common macro-economic factors that cannot eliminate their exposure to general economic risk.

4.4 LITERATURE REVIEW

Scarret (1995) defines property management as a distinct field that seeks to recommend the establishment of an appropriate plan within which to oversee the portfolio to achieve the agreed short and long-term objectives of the investor and mainly to the return on investment. have concern on management is often referred to as real estate management. The Institute of Real Estate Management (IREM, 2011) provides the most important functions involved in management of properties that involves site management, personnel management (onsite and offsite staff), management of trust accounts, leasing services and tenants' service provision. Facilities management is more of physical aspects of the building, whilst property management is more of maintaining or increasing the property value, management of leases, statutory obligations and financial administration of the property (RICS, 2011).

Facility management is a term that entails the development and control of non-core, support services of an organisation with buildings, their systems, their information technology equipment and fittings (Wiggins, 2014). The concept is,

therefore, an emerging issue that originated from the real estate management function but, as a result, increased its scope and incorporates various disciplines. Facility management has been, in recent times, engulfing various departments in an organisation and managing them to support the main objectives of the organisation. However, Alexander (2004) has argued that a proper definition of facilities management is a support function for core business objectives. He further opines that it is difficult to differentiate facility management from core business because some companies' facility management is their core business. The term has been traditionally recognised as the old-fashioned caretaking, cleaning and maintenance of buildings (Atkins and Brooks, 2009). Nonetheless, it is now a multiple profession ensuring functionality of the built environment by integrating people, place, process and technology (*ibid.*).

Urban Land Institute (2007) defines real estate development as the continual reconfiguration of the built environment to meet society's needs like construction of roads, water reticulation plants, housing, office buildings and lifestyle centres. Every country on the globe has these society's needs. Real estate development is a process that transforms an idea into bricks and mortar (Miles, Berens, Eppli and Weiss, 2007). Once real estate investment construction is completed, it is the responsibility of the management triad to take over and deliver the cash flows envisioned in the feasibility study and to

maintain the physical structure and site to protect the project's long-term profitability (Miles *et al.*, 2007).

The management triad is the management of property, asset and portfolio. Property management is the operation, control and oversight of real estate as used in its broadest terms (Urban Land Institute, 2007). Management indicates a need to be cared for, monitored and accountability given for its useful life and condition. According to the Real Estate Dictionary (Davies and Jokiniemi, 2008), property management is the job of upkeeps, maintenance and servicing of a building or property. It is also the management of personal property, equipment, tooling and physical capital assets that are acquired and used to build, repair and maintain each item's deliverables. Property management involves processes, systems manpower required to manage the life cycle of all acquired defined. including acquisition, property as control. accountability, responsibility, maintenance, utilisation and disposition. Property management is located on site and is the primary link with the tenant. It is a role that is far more complex than simply showing space, signing leases and collecting rentals. Property managers seek to generate the greatest possible net income for the owners of an investment property over the economic life of that property. If the goals of the owner are reasonable, ethical and lawful, essentially, the property manager seeks to achieve the objectives of the owners, generate incomes for the owners and preserve and/or

increase the value of the investment property (Kyle, Baird and Spodek, 2000). The managers and leasing teams get commission as payments for their special services rendered. Institutional investors can choose to manage their real estate investments in-house or by outsourcing or combining the two (Gurajena, Chaeruka and Dumba, 2018).

Asset management is defined as the coordinated activity of an organisation to realise value from assets (Institute of Asset Management, 2010). In general, asset management companies have been used to address overhang of bad debt in a country's financial system (Klingebiel, 2000). Assets are defined as an item, thing or entity that has potential or actual value to an organisation. Asset management is located offsite, and it is done for several different properties (Institute of Asset Management, 2010). It assumes a broader perspective that property management does not, and they specialise on property type, size and location.

An asset manager manages the property on behalf of its owner (Miles *et al.*, 2007). The manager participates directly in critical property management activities, for example, significant lease negotiations, major capital projects and annual budgeting. Asset management is a systematic process of deploying, operating, maintaining, upgrading of real estate properties (Urban Land Institute, 2007). Amongst other duties, the asset manager oversees the activities of property managers and is

also responsible for some more duties as discussed herein. Asset managers are responsible for measuring performance of the property. They also enable an organisation to examine the need for, and performance of, assets and asset systems at different levels. It is their duty to evaluate property managers by comparing property performance with peer properties in the same submarket.

Further, asset management also work in assisting in tenant relations, that is, helping to facilitate and ensure good relations between real estate investors, government and tenants of the property. The asset management department can include professionals like economists who are quick and able to detect and analyse market conditions. Professionals can detect the best time it is profitable and beneficial to buy or dispose of a property. Professionals will help the global investor to access the states they are considering investing in prior to making huge financial commitments. Having a positive corporate perception on corporate real estate asset management, a separate corporate real estate unit and a real estate inventory record, are primary to the success of the asset management (Teoh, 1993).

Portfolio management refers to a combination of securities, such as bonds, stocks, wine, real estate and other instruments. In the context of real estate, it defines and implements its strategy considering mainly its goals and long-term objectives.

Overall corporate real estate management must move toward developing a strategic approach involving principles and practices of general management to develop a proactive, comprehensive and portfolio-wide decision-making process (Veale, 1989).

At the top of the hierarchy of the management triad is the portfolio manager responsible for defining and implementing its strategies considering mainly its goals and long-term objectives. Portfolio management oversees asset management, acquisitions, disposals and investment decisions and supervises cash management financial performance. The portfolio manager reports to the owners of the properties. Other functions of the portfolio manager include receiving feedbacks from the asset managers. The portfolio manager can also bring other investments criteria that one would need to be considered. By bringing in many ideas, it is likely that the operations will be efficient, hence leading to the maximisation of value to the investor. Portfolio management also oversees acquisitions of new investments or decisions of venturing in countries in many regions of the world. They also decide when to leave. When disposing of or acquiring new properties, they play a pivotal role facilitating the process after critically analysing implications and possible challenges likely to be faced because of the action. Asset managers are presented with tasks and at some point, they need to report to the portfolio management about their progress towards achieving their set goals. Property,

asset and portfolio management is, therefore, there to facilitate and help global investors and global citizens with their professional expertise to help own and manage properties from various locations.

4.5 METHODOLOGY

The authors engaged a case study of Zimbabwe to provide a vivid picture of the story. The study carried out interviews with senior real estate managers. Further case analysis reviews were used to collect data and review experiences. Interviews were held with various property professionals until a data saturation point was reached and results recorded. Due to the long processes of obtaining approvals to name real estate companies listed on the Zimbabwe Stock Exchange (ZSE) that participated in the collection of data, the study resolved not to disclose the names, except for three and one pension fund, the biggest. although many informants from various organisations were engaged in giving data. The qualitative data were analysed through thematic content analysis. The data analysis focused on themes and sub themes that emerged from the study. Some of the issues that emerged from the study included shortage of human resources, influence of illegal sanctions that Zimbabwe has been battling with, inconsistency of the public policy, high corruption levels, inconsistency in the policies introduced by the central bank and corruption, among others, as some of the reasons causing failure in the implementation of the management triad. Thematic content analysis is very ideal in

laying down results as it can help readers to track experiences as would have been laid out by the researchers.

4.6 RESULTS

National Railways of Zimbabwe Contributory Pension Fund

The National Railways of Zimbabwe Contributory Pension Fund (NRZCPF) is the second biggest real estate property owner in Zimbabwe after Old Mutual. Data obtained from the field showed that this organisation does not have a registered estate agent on their management team besides being the biggest occupational pension fund in Zimbabwe (Gurajena, Chaeruka and Dumba, 2018). The NRZCPF own real estate worth US\$225 000 000 with a total leasable space of 274 000m². Commingled with other investments assets, the total value of the organisation is US\$450 000 000. It in recent times, it has employed a mixed strategy to property management, whereby some single tenanted buildings are managed internally, and other multi-tenanted buildings are managed by estate agents. It outsources management services to renowned property managers, Dawn Properties, Knight Frank and John Peacock & Sons.

The property officer of this organisation admitted to having principal-agent problems with their estate agents. However, he pointed out that the need to cut on agent's commission perpetuated them to partially usurp the roles of their estate agents by introducing an internal property management

department at their pension fund (*ibid.*). Normally this kind of decision is made by asset managers who would have noted that the property management division has potential to lower operating costs hence being beneficial to usurp roles of outsourced estate managers and introducing a real estate internal management department. The NRZCPF pays above an estimated US\$500 000 annually as agents commission alone. This pension fund also invests in other assets for example bonds, capital market, money market, treasury bills, stocks and prescribed assets. All these other investments are normally detected by portfolio managers. On average, about 7 800 pensioners' salaries are paid out monthly by the NRZCPF. These pensioners represent the funders of the fund and are also entitled to receive monthly payments. This is a pressing commitment for the pension fund.

The NRZCPF wishes to expand their real estate base by investing in more office parks and shopping malls, given that they secure adequate finance for that endeavour (*ibid.*). The decision on expansion is made by the portfolio or asset managers in a management triad. However, although the structures are not determined within this organisation, it is important to note that the functions of a management triad are effectively conducted within this organisation. Further, the pension fund does not have the proper structures coordinated, the management of the entire pension fund are responsible for interchanging tasks and simultaneously carry out duties of

property, asset, and portfolio management as they do their day-to-day management of the organisation. Just like many organisations in recent times, the economy seems to be setting back the performance. The NRZCPF is underperforming in rental collections and increasing bad debts and rental reduction requests. In delivering facilities management and service provision in their real estate investments, the property officer of the NRZCPF highlighted that their pension fund's current plan is responsive and effective. From the interviews held with the NRZCPF, the main basis for their decisions is about income maximisation, implying loss minimisation and containing operating expenses. Generally, the strateav organisation, in relation to management triad, is undefined as everyone in the organisation is responsible for carrying out all the duties in a proper management triad.

Zimre Property Investments

Previously known as Zimre Holdings Limited (ZHL) Group, Zimre Properties was incorporated on 27 January 2003, following the successful disposal of National Real Estate (Pvt) Limited (Chirisa, 2013). Zimre Property Investments (ZPI) commercial property portfolio, in terms of size, indicates that it dominantly holds office in the central business district (CBD), consisting of 70% of its total commercial property portfolio and a few retail and industrial properties having 19% and 11%, respectively (Mhandu, 2015). It has neither office parks nor hotels within its commercial property portfolio. Thus, ZPI is not

well diversified in terms of commercial property class or type. For this company to have made such decisions with regards to how their portfolio investment is diversified, clearly shows the active involvement of a property management and portfolio management division within their structures. This poses a serious risk within its portfolio, since a major downturn within the office sector will weigh down on its rental income since the CBD office sector is a major component of the company's commercial property portfolio (*ibid.*).

Furthermore, this organisation consists of a board of directors that, on many occasions, detect on how the organisation should be diversified. The management has responsibility for effectively managing the real estate portfolio on a day-to-day basis. The board of directors is generally a team of at least eight highly qualified professionals that consists of Chartered Financial Analysts, Chief Executive Officers, Managers, Directors, Politicians, Lawyers and renowned businesspeople, amongst other prominent professionals. who, in the main, form boards of huge investment companies. The highly qualified team on the board of directors are normally the ones that perform the duties of portfolio managers in the investment firms, supervising the asset and property management functions. Furthermore, ZPI has developed more than 2 000 residential stands in Ruwa both medium and low density. It has spearheaded the servicing of land in Ruwa and assisted the town with money to improve refuse collection (Chirisa, 2013).

This can be some quick examples that can show existence of proper management but very difficult to track whether the management triad's involvement is clear enough.

Mashonaland Holdings

In July 1966, the Mashonaland & Provincial Trust Company (Pvt) Ltd and Mashonaland Real Estate (Pvt) Ltd merged into Mashonaland Holdings (MH). MH commercial property portfolio in terms of lettable area shows that MH has an almost equal mix of office and industrial properties of 45% and 43%, respectively. However, retail and office parks contribute the least percentage with 9% and 3%, respectively, of the total commercial property portfolio (ibid.). In comparison with Zimre Property Investments, MH is better in terms of diversification, since it has a balance between industrial and office investments in the CBD. However, the benefits of these types diversification are very limited since the two sectors are seemingly the worst hit due to lack of formal activity and industrial capacity that is below 40%. Thus, this diversification within the Zimbabwean context is not efficient since both sectors are the most hit in terms of income return and performance (*ibid.*).

MH was the first in real estate to be listed on the Rhodesia Stock Exchange now the ZSE. This company greatly contributed in the establishment and development of Ruwa. Chirisa (2013) noted that the company bought land in Ruwa in 1987 and transformed the land into the Ruwa Growth Point. This was the

brainchild of the then chairman, T.C. Hardy. A satellite town east of Harare was then established, incorporating industrial, commercial and residential stands (ibid.). The entire infrastructure and many of the factories and houses were then built by MH. This involvement of the Chairman of the Board of Directors for the company clearly supports the notion that in Zimbabwe, the board of directors who are responsible for shaping the strategy of the organisation, actually also work as asset and portfolio managers of the real estate companies. The mixed approach over the years has managed to achieve good results, though it is extremely difficult to trace the functions of each stakeholder in a company.

Pearl Properties

Pearl Properties has a more diversified portfolio since it has a considerable mix of four types of commercial property classes. Its portfolio predominantly consists of CBD office and the industrial property types, with 35% and 33%, respectively. The office parks property class has a significant percentage of 22% within its commercial property portfolio. Therefore, given the Harare expansion trend, where office parks have become more attractive to high class tenants, like accounting firms such as Price Waterhouse Coopers, the sector has become the company's cash cow (Mhandu, 2015). As one of the giant property companies on the market, the company also has a board of directors and management team that perform similar

roles hence it is also difficult to trace specific responsibilities within these large real estate corporations.

A data saturation point was reached, hence it is not worthwhile to repeat the same observations since all the cases used in this study directed the same findings. A different approach had to be used on this organisation and the results are given herein. The approach involved investigating how the organisation has been growing, for example, dwelling on its experiences when it carried out an initial public offering (IPO) on the ZSE.

For this organisation, the researchers enquired on the experiences postured by Pearl Properties when they listed on the ZSE. This was initiated by the need to investigate roles played by portfolio, asset and property managers in carrying on the process. As results, it was noted that extensive time, high expenses and high returns were all incurred and achieved by management at Pearl Properties. Finding the right investors for a company is a complicated task that often takes a significant amount of time, effort and money. This involves the use of underwriters and brokers to make that activity effective and efficient. The cost of issuance includes fees a corporation pays to the syndicate of investment banks and brokers that underwrite the new issue. For example, when Pearl Properties issued its IPO to raise \$1.1 billion in 2007, it incurred \$72 million as expenses paying its co-underwriters who included Ecobank, ZABG, FBC Bank and Stanbic Bank sub-underwriters

and brokers. To persuade investors to invest, the organisation had to promise to pay higher returns than the rates it could reasonably pay to a bank or other debtor. Taking on such high returns can cripple the organisation that can leave some loopholes in considering equity funding as a superior method of financing real estate projects. An analysis of the events and strategies that were conducted shows existence of strategists from functions in a management triad.

Decisions on expansion of operations are made by asset managers. They consider various options when expanding their operations. To expand, it is necessary for business owners to tap financial resources. Business owners can utilise a variety of financing resources, initially broken into two categories: debt, and equity. "Debt" involves borrowing money to be repaid, plus interest. "Equity" involves raising money by selling interests in the company. This was the same decision that had to be made by management at Pearl Properties. For example, the break perhaps came around 2007 when they successfully listed on the ZSE, raising capital close to 30% of their Net Asset Value. ZPI went on to list after that and since then, there has been isolated cases of real estate development, some involving joint ventures with foreign investors. Banks and building societies have recently resumed giving out mortgages but the amounts they can advance seem more suited to aspiring homeowners, rather than for large scale property projects. It can be equated to the board of directors, who are non-executive, administering their

functions as asset and portfolio managers in determining the timing of issuing on the ZSE.

Daily, portfolio management decisions are being made by asset managers and/or even property managers. Further examples include a report by Nyakazeya (Financial Gazettes, 16 April, 2015), where some property companies such as Pearl Properties, were planning to transform offices in its CBD properties into residential apartments and converting industrial properties to retail rental space. In another report by Makoshori (Financial Gazette, 2 April, 2015), ZIMRE Property Investments (ZPI) was also targeting to offload a number of commercial properties across major CBDs in response to deteriorating margins triggered by difficult a economic environment. The most common cause for management personnel frequently acting in manners that are like usurping the other's function and role can, arguably, be of a lot of market and economic inconsistence.

The market and economic inconsistencies favour a reactive response management whereby the managers are forced to implement strategies that always safeguard their companies. For example, recently, the introduction of the Real Time Gross Settlement (RTGS) dollars by the Reserve Bank of Zimbabwe as the new medium of exchange, has seen the currency losing value against the United States of America Dollar. As a result, many property companies have been struggling in adjusting

rentals changes to stay afloat. This has been the main challenge facing the management triad in effective distribution of their duties. They are forced to give special powers to lower management so that they can immediately convey special decisions in cases of inconsistencies in the economy.

Finally, large and small real estate corporations in Zimbabwe have been taking strategic moves, sometimes basing on the state of economic affairs and in reaction to the market forces. Many companies are rushing to venture into residential real estate development, for example, the NICOZ Diamond housing project in Hatfield, Pearl Properties has completed Kamfinsa Housing Development, CBZ has also rolled out serviced stands in Chikanga, Mutare, and Nehosho, Gweru, FBC's Masotsha Ndlovu Phase 2, Greendale Cluster Housing Project, 51 Princess Drive, Elizabeth Windsor Gardens, Pokugara Residential Estate, and Glaudina Housing Project, are at advanced levels of construction and are already selling while Mashonaland Holdings have also purchased land in Ruwa, earmarked for medium density housing development. Existing evidence has also shown that these decisions of late have been made by all the players in the equation. Property managers do research and check on the feasibility. They advance their findings to the asset managers who check whether it will be viable to consider the option. When they agree, the portfolio managers will then be presented with an opportunity to contribute. It can, therefore, be confirmed that although there is a structural hierarchy in

making the decision in many property firms in Zimbabwe, all the players participate in making decisions.

4.7 DISCUSSION AND CONCLUSION

The study initially enquired and understood the challenges in implementing the management triad in real estate companies operating in an African setup by identifying the problems involved in the smooth running of a management triad for real estate companies in Zimbabwe. Results showed that 75% of real estate companies re listed on the Zimbabwe Stock Exchange do not have a noticeably clear structure in approaching their management triad. It was discovered that real estate investments are made as alternative options and the investors are interested mainly in the income earning ability and security of the investment. The remaining 25% of real estate companies have structures for their management triad but are failing to fully harness the benefit. This could be attributed to several factors such as the economic sanctions that Zimbabwe is battling with, inconsistency of the public policy, high corruption levels and inconsistency in the policies introduced by the central bank.

It can be probably agreed that global asset management companies that invested in property have experienced some stiff resistance from government policies in recouping their initial investment outlay outside the country. As a result, global asset management companies have just given up in following

their investments in Zimbabwe. The adverse effect of the economic sanctions against the country is making the country an unfavourable investment destination in real estate. The dark history of land redistribution that was carried out in the country is also making it difficult for other potential investors to prioritise investing in the country as they fear that since politics seems to be above everything and politicians introduce policies against foreign investments it may be difficult for them to recoup investment. Challenges involved in implementing management triad are mainly operational in that there has been very little foreign direct investment over the last two decades. Property managers are, however, not sure whether they can identify the challenge to be because of their track record or could simply be a mere issue beyond their influence as it can be causally linked to politics.

Further, the study also identified the prospects/hopes/forecasts views of implementing the management triad in real estate companies operating in Zimbabwe. The study managed to establish how the Zimbabwean real estate companies can implement the management triad. It was also discovered that if it could be proved beyond reasonable doubt that introducing a clear management triad in a company can increase the income earning ability of the entire investment company, the directors would certainly prioritise the latter. Forty percent (40%) of employees in major real estate players in Zimbabwe are adamant that one of the reasons their employers seem to be

sitting comfortably without a clear structure on management is simply because of ignorance of the potential benefits that can accrue to the organisation.

Furthermore, the study enquired on the options available in implementing the management triad in real estate companies operating in an African set-up. Suggestions on alternative ways of implementing the management triad were made. A fifth (20%) of respondents from property investments indicated that there is a huge possibility that all the companies do have a management triad but with simply different structures and responsibilities shared across the functions within the company. The observation is very valid. One of the respondents stressed by giving an example that everything depends on the jurisdiction in which one is in, "a monarch is ruled by a King or a Queen while a democratic state is ruled by a President or Prime Minister". The respondent further highlighted that this is also the same situation that investment firms experience; they can have a special way of coordinating and managing their real estate assets. The specific management ways are normally not similar and can vary from organisation to organisation, depending on the differences in cultures and beliefs. The respondents hence concluded that they believed that all the organisations that invest in real estate have a noticeably clear management structure but are not always referred to as the management triad and can be different from the latter though it could perform the same functions.

Moreover, the study enquired on the challenges implementing the management triad in real estate companies operating in an African setup and possible problems involved in introducing an effective management triad in a real estate organisation. The analysis conducted after the study involved comparisons of responses by key informants who are property managers in the property companies listed on the ZSE. One of the major findings involved the assertion that some property companies have sound structures in their portfolio, asset and property management, though they use different wording and titles in assigning the duties. Against that finding, it was further discovered that it can be exceedingly difficult and challenging to monitor or track the implementation of a management triad in real estate companies since they have different backgrounds, vision, values and ways of carrying on business. Therefore, investigating around the subject can be topical since there is a possibility that people are doing the same things that have a potential of being interpreted or referred separately. The actual work conducted by structures could be used as a yardstick against which the functions are measured.

Finally, the study also established other ways real estate investments in Africa can be made lucrative for international investors by enquiring on how the nation can make its real estate become a good investment destination to institutional investors. The basic finding highly pointed to accountability and governance. If high standards are upheld in accountability and

governance by the host country, foreign direct investment improves. The positive externality will also flow to the investment firms within the country and property management structures will be introduced by the financiers. This has given adequate evidence in showing how the organisations are being managed. Evidence, emanating from the study shows that, indeed, real estate investment firms are aiming at safeguarding their investments, maximising capital gains and increased returns. However, they do not have a friendly way of making use of the management triad to help achieve their objectives. Since the country is a potential good investment destination, there is a potential that the study can be used in helping investor organisations on understanding the current state of the particular investment destination.

It is concluded that the effectiveness of real estate investment firms is at stake if the current approach of managing assets is perpetuated. Through sharing and adoption of knowledge created in successful global institutions, local real estate investment firms stand to benefit from adopting policy recommendations used in successful global companies. This can apply if there is no strategy in management of the real estate assets. In cases where there are strategies, the study uncovered that there are instances where naming and responsibilities vary, depending on culture, tradition and values of a particular organisation.

Chapter 5: Inner-city Bus Termini as Potential Revenue-enerating Source for the City of Harare

HENRY T. GURAJENA & INNOCENT CHIRISA

5.1 CHAPTER SUMMARY

This chapter discusses bus termini as potential 'gold mines' for local authorities in Zimbabwe. It seeks to advance the argument that considerable revenue is leaking because of the ineffectiveness of local authorities in administering the activities carried on at bus termini. The major gap in literature that this chapter seeks to fill relates to potential earnings that are being pocketed by rank marshals and touts. Bus termini in the Harare City Council (HCC) central business district (CBD), in recent times, have not been on the city's revenue-generating assets portfolio. Currently, it is getting its revenues from advertising and building in the form of rates and rent, yet bus termini exhibit an unexplored revenue base. The chapter can, therefore, be used as a tool that informs the urban manager (HCC) on potential revenue that is not being harnessed. It can also be the reference point to strategy-making in the city council when making decisions on expenditure redevelopment of transport communication infrastructure. To understand the realities on the ground, interviews with urban managers were held and observations were noted at bus termini. These instruments then represented data collections

tools. Results showed that, indeed, revenue is being lost. This was proved mainly by the existence of touts and rank marshals, estimated to be at least 1 250 in the Harare CBD alone, collecting revenue from bus operators. This could be attributed to inefficient systems implemented by urban managers at bus termini as observed. It is, therefore, recommended that the local authority of Harare should now start to redevelop and construct new bus termini and commence billing bus operators each time they use the bus termini. HCC should also now regulate the number of bus operators in the city.

5.2 Introduction

Urban transport facilities in cities and towns are managed by local authorities of the respective cities in Zimbabwe. Major roads are administered and managed by the Zimbabwe National Roads Administration (ZINARA). ZINARA also collects revenue from motorists from the licensing fees they charge. In Harare, the council is responsible for the construction, management, erection and maintenance of roads, signals, signage, alleys, pedestrian walkways and bus termini. These urban transport facilities are important for the smooth flow of traffic in an urban area. Funding for these facilities should be availed by every taxpayer through contributions done at the local authority. Further, ZINARA should fund local authorities to provide these services in the roads under their jurisdiction. To sustain themselves, these facilities somehow must be revenue-generating. Therefore, collection points are availed at bus

termini and in other countries through urban toll gates. Failure to collect revenue at Harare's bus termini has motivated the researchers to conduct this study to investigate the impacts urban transport facility's informality has caused.

Bus termini in the Harare CBD look dilapidated, unmaintained and dirty. Generally, this has led to an increase in informal passenger pick-up and drop-off points. One might attribute this to lack of adequate funding and maintenance programme by the HCC. Bus termini, on their own, are a potential 'gold mine' for the council, if managed properly. However, in the CBD, little attention seems to have been directed towards harnessing income from these bus termini. The study, therefore, seeks to inform urban managers about benefits that could be realised in monetary terms if attention is directed at regulating the transport function department of the city.

5.3 BACKGROUND TO THE STUDY

Informality is back on the international development and urban planning and real estate agenda (Roy, 2005). De Soto (2000) labels informality a "heroic entrepreneurship" to denote the associated confidence art that some of the players in it engage. The Harare City Council housed 2 123 132 people as at December 2015 (ZimStat, 2015). This unsustainable number has led to increased pressure on many systems, transport being of interest to this study. Because of the pressure, reactive measures introduced by the authorities were to create more

bus termini and change flow direction of many road networks. The introduced measures improved the systems, but one might argue that there is potential for further improvement in the way public transportation is administered by the urban manager institution. The local authority is copiously responsible for managing traffic system, the traffic flow, road maintenance, terminus maintenance amongst other things.

In the budget Harare City Council for 2016, the Chairperson, Finance and Development Committee noted that engagements with ZINARA in a bid to unlock roads maintenance funds were on-going. It was reported that to date, council was in receipt of approximately US\$600 000 from ZINARA and it was their hope that more funds were going to come their way because the HCC were struggling to give a semblance of repair and maintenance to the approximately 5 000-kilometre road network (Harare Budget Speech Proposal, 2016).. Lately, informality in the transportation systems has caused a series of problems in the flow of traffic in the CBD. Some unemployed youth have capitalised on the challenge and seen it as an opportunity to make easy money. This has motivated this study to investigate ways and means of reducing loss of revenue in recent times, observed at terminal. This study also seeks to estimate total revenue lost through leakages at these. The chapter further suggests that other institutions assist the HCC to control traffic and its offences, for example illegal pick-up and drop-off points. The chapter also assesses the behaviour of touts and rank

marshals and their justification to demand money from operators. Overall, the entire study establishes existing limits and constraints, for example, political and economic factors that are causing commuter operators to use informal termini where they pay touts to pick up passengers and to get responses from governing institutions, that is, the police and the HCC on how they have tried to deal with the informality and the challenges they encountered in the process, will be tried to be established from the study.

The whole idea is to initiate the creation of a system that will ensure efficiency and efficacy in service delivery. Unless this study is done, the regulating institution will continue to lose revenue to touts and rank marshals. The study also seeks to inform the urban management and real estate agenda about potential revenue that can be received by the HCC from the termini. The revenue lost may be used to fund maintenance, repair and refurbishment of transport infrastructure at termini in the CBD. This study will also recommend other useful strategies to address the challenge. Having noted the existing challenges at bus termini, the study can also advise urban managers to develop systems that work towards improving the current situation.

5.4 LITERATURE AND THEORY REVIEW

Urbanisation in many developing countries cities has led to growth, both geographically and demographically. As a result,

the growth has caused an increase in pressure on basic services and public transport systems used in cities (Mbara, Dumba and Mukwashi, 2014). On one hand, the population in cities is being industrious and, as a result, they are importing cheap used Japanese cars. This has led to traffic congestion in the CBD. On the other hand, Joewono and Kubota (2005) noted that many people in cities of developing countries cannot afford to own cars. Generally, it can be agreed that, with the increase in technology that has seen vehicles being manufactured at the lowest possible costs, dumping vehicles in the Sub-Saharan Africa region. The result is an increase in both private vehicles and public minibuses, popularly known as *kombis*.

Harare, the capital city of Zimbabwe, had at one time a population of about of 2.1 million people, translating to 16.2% of the country's population (Zimbabwe National Statistics Agency, 2012). The urban managers need to be reactive to the transport informality problem being experienced in the city. Informality is back on the international development and urban planning agenda (Roy, 2005). The existence of touts "who are harnessing money from commuters for directing citizens who know their destinations" should be addressed in Harare. Roy (*ibid.*) states that the relationship between informality and planners is complicated. On one hand, informal spaces have been perceived as unplannable and, on the other, there have been attempts to improve and integrate such spaces (*ibid.*). The reason commuter omnibuses are picking and dropping

passengers at informal points and paying touts for doing so, clearly shows that the urban manager has failed to execute some of his/her duties, hence the barbaric behaviour amongst operators has increased drastically.

Generally, assuming that government agencies were able to provide adequate public transport, it would be expected that the current informalities being experienced in the transport industry would not be noted. However, the existence of the informality shows that government is failing to provide adequate transport, leading to emergence of an 'informal public transport' system that is trying to supplement the actions by government agencies (Golub, 2003). Therefore, since local authorities are the recognised institutions that should correct the situation, much input is expected from them, firstly by providing facilities that support a clear flow of public transport.

While it is widely agreed that there is a high unemployment rate in the country, it cannot be justified that collecting revenue from omnibus operators for picking up passengers at unregularised termini popularly referred to as *mushika-shika* or *pahasha* can be regarded as a good way of being industrious and creating self-employment. The revenue that touts are pocketing at these termini is supposed to be collected by the city council. Therefore, the latter institution has lost millions of dollars to the rank marshals and touts. The revenue lost could

have been used for community development activities that increase service delivery by the local authority.

One might say formal termini are too costly for commuter operators since council reportedly heavily fines any member commuter for an offense committed. Activities of the police on the roads is also drives commuters to resort to informal termini because the police have been widely accused of soliciting bribes or fining all operators unreasonable amounts. The operators then argue that to break even after the expensive fuel, police bribes and fines, they end up resorting to un-regularised bus termini. Police damaging operators' vehicles and high-speed chases between the police and operators has also led to pedestrians being killed in the city. De Soto (2000), in his bestselling book, The Mystery of Capital, presents an image of informality as "heroic entrepreneurship". With the ear of many of the Third World's political leaders, he continues a theme that he sounded in his first book, that the "informal economy is the people's spontaneous and creative response to the state's incapacity to satisfy the basic needs of the impoverished masses". This incapacity is even shown by the police, urban managers and council workers when they are sustaining corruption and boarding *kombis* themselves at these undesignated places.

If these collections could be put in an Annual Sinking Fund, they could be used to fund the development of world-class bus termini, accommodating a larger number of vehicles and citizens in the CBD. In Harare CBD, at the of corner Rotten Row Avenue and Coventry Road, parking bays for *kombis* were built by the city council to reduce congestion in the CBD. However, not all registered commuter omnibuses used the buys, arguing that they can spend up to two hours waiting to be called to come and pick up passengers.

The informal transport, more than the formal sector, relies heavily on traditional knowledge and resources, family labour and ownership, small-scale operations and labour-intensive techniques, and offers low barriers to entry for potential participants (Rakowski 1994) as referenced in Mbara, Dumba and Mukwashi (2014). In Harare, public transport is significantly composed of these. To survive competition, these players are picking passengers at undesignated places. Touts and rank marshals then capitalise on that and ask operators to pay for services. That revenue is supposed to be realised by the city council.

5.5 METHODOLOGY

This study employed observations as an important tool to collect data pertaining to activities of *hwindis* and touts. An interview guide was prepared and administered to major stakeholders in the transport management systems. A guide was administered to the planning officer at Harare City Council. To estimate actual revenue that is lost from activities of rank marshals and touts was a challenge, so the study observed and

tracked movement of combis to ascertain the average trips they travel a day and multiply with the amount they pay per trip. Several touts were also interviewed so that the researchers could verify the actual costs of their services that are transferred to bus operators.

5.6 RESULTS

The researchers carried out excessive investigations in the Harare CBD and made educated guesses after careful considerations and interviews with players and stakeholders in the transport industry. The findings of the study have been summarised, analysed and scribed in this section of the chapter. Basically, three main findings have been reported. These have been placed under three main subheadings that is, estimation of revenue at informal bus termini in the Harare CBD, estimated populations of informal operators and their impacts, and estimated touts employed at bus termini. Each sub-section will represent the respective findings in the related subtopic.

The specific group of youths popularly known as rank marshals and touts or simply *hwindis*, charge each commuter vehicle that uses the termini a fee that is usually equivalent to the fare paid one to four passengers, depending on the size of the vehicle each time it picks up passengers. These actions are informal and constitute revenue leakages to the local authority. Touts do not only reduce the total revenue that could be realised by the HCC, but also indirectly discourage urban managers direct funds towards redevelopment and upgrading of many commuter

transport termini in Harare since the project will not be able to recoup initial capital investment outlay.

Harare City Council Budget and Policies

In the Harare Budget Speech Proposal, 2016, the Chairperson of Finance and Development Committee noted that the council was aiming at enhancing the city's revenue generation and collection capacity, increasing the city's revenue streams, upgrading systems to improve operational efficiency and expanding the scope of the city's services. He also noted that these aims came because of direct engagement of residents and stakeholders. Stakeholders had indicated that the budget should prioritise service delivery. While stakeholders had submitted an exceptionally long list, major focus was on infrastructure, particularly water and the distribution network, roads, street lighting, public toilets, recreational and sporting facilities and refuse collection (Harare Budget Speech Proposal, 2016).

It was also reported that since ZINARA was mandated to collect all the revenue from the transport sector on behalf of the HCC, ZINARA had not disbursed any amount to the council. Since the transfer of vehicle licensing to ZINARA, road maintenance programmers continued to suffer from the negative impact of this development. In the road network repair and maintenance, it can be argued that this is where the bus termini facilities were supposed to be repaired and kept in a good state. In that

period, the sector anticipated a deficit of US\$15 million that was largely driven by repairs and maintenance of roads, streetlights, and the acquisition of the relevant equipment (Harare Budget Speech Proposal, 2015). Table 5.1 summarises the estimated revenue source for the 2015 and 2016 budgets for the Harare City Council. From the list, there is no revenue that is indicated to come from bus termini, even if the section indicated "other" represents revenue from bus termini. The city has not been paying any attention to income from the bus termini. This, therefore, strengthens the thrust of this chapter to measure potential revenue leaking at the bus termini in Harare CBD.

Table 5. 1: Summary of estimated revenue source for the 2015 and 2016 budgets for HCC (Budget Speech Proposals (2015, 2016). Accessed on 24 February 2017, Available on http://www.hararecity.co.zw/index.php/jcontent/council-budgets)

Source of Revenue	Amount (2015)		Amount (2016)	
Property Tax(domestic/industrial/commercial)	\$	105,300,000.00	\$	118,100,000.00
Refuse collection	\$	23,800,000.00	\$	26,800,000.00
Welfare	\$	800,000.00	\$	-
ZINARA and Billboards	\$	4,000,000.00	\$	4,000,000.00
DOW: Administration and City Architect	\$	6,700,000.00	\$	7,600,000.00
Clamping and Towing	\$	5,800,000.00	\$	5,600,000.00
Health Fees	\$	6,600,000.00	\$	7,400,000.00
Housing: Rentals, Leases and Markets	\$	9,000,000.00	\$	15,100,000.00
Harare Water	\$	102,000,000.00	\$	139,600,000.00
Parks and Cemeteries	\$	800,000.00	\$	900,000.00
Public Safety	\$	800,000.00	\$	4,600,000.00
Welfare and Education	\$	700,000.00	\$	900,000.00
Estates	\$	3,200,000.00	\$	8,600,000.00
Other	\$	3,500,000.00	\$	400,000.00
TOTAL	\$	272,770,000.00	\$	343,900,000.00

Experiences of Cost of Running a Commuter Omnibus

Interviews with touts conclusively summed up. that operators pay a minimum of US\$1 touts for every outgoing commuter omnibus. This payment is also influenced by the cost per passenger to the destination of the operator. Bus operators reported that they incur a lot of operating expenses, for example, on an average day, they may pay out US\$10 and sometimes US\$20 to the Zimbabwe Republic Police (ZRP) officers (Mangongongo) and municipal police in cases where operators do not have adequate and renewed documentation and licensing for operating. Asked about their perspectives on who can best administer the activities at bus termini, the operators said that no one could better manage bus termini because all the stakeholders, city council officers, municipal police officers, touts, rank marshals and the ZRP traffic police officers, were after making profits and were not concerned with good service delivery.

It is important to note that these traffic operators are also expected to pay licensing fees to ZINARA, usually US\$30, including third part insurance for three months. Operators are also expected to pay US\$75 for rank discs usually per four months. The Vehicle Inspection Department (VID) expects all passenger transport companies to pay US\$25 towards renewing

their vehicle fitness checking. On passing this checking/test, to obtain the certificate of fitness, one is expected to pay an extra US\$20. This is done after every six months.

As if that is not enough, the commuter bus operator is also expected to apply to the city council for a route certificate and this costs US\$100. When one applies for the route permit, they also pay an extra amount that would need to be renewed after every four months. The US\$75 is paid to the Road Motor Transport Authority (RMTA) and these are the ones who finally grant route authority and the operator's license that averagely costs US\$350 for a period of five years. It is also important to note that when one first purchases a commuter bus, they must pay 10% of the price of the vehicle to the Zimbabwe Revenue authority (ZIMRA) as Value Added Tax (VAT). The current poorly regulated or unregulated urban public transport market has witnessed unrestricted entry of operators to such an extent that there is an oversupply of minibuses. An oversupply of vehicles means increased revenue generation for the fiscus through both legal (vehicle taxes) and illegal (corrupt) means. Table 5.22 shows a comprehensive financial contribution by the minibus industry in Harare, assuming there are 8 000 (the figure that is often quoted) vehicles in Harare. These were Minister of submitted to the Finance and Economic

Development during the 2017 national budget consultations done in 2016 by the Ministry of Transport

Table 5 2: Showing estimated financial contribution to the national budget (Commuter Operators 2017 National Budget Consultations)

	Supplier	Annua	Unit Price	No. of units		Total Annual
Cost Description					Eco	nomic Contribution
Fuel (30L*312*\$1.23)	Fuel Co.	\$	11,513.00	8000	\$	92,104,000.00
Presumptive Tax	Min of Finance	\$	700.00	8000	\$	5,600,000.00
Paye	Min of Finance	\$	480.00	8000	\$	3,840,000.00
Vehicle insurance	ICZ / TSCZ	\$	264.00	8000	\$	2,112,000.00
Passenger insurance	ICZ	\$	236.00	8000	\$	1,888,000.00
Route Authority	RMT	\$	75.00	8000	\$	600,000.00
Vehicle licence	ZINARA	\$	60.00	8000	\$	480,000.00
Rank disc (*3)	City of Harare	\$	300.00	8000	\$	2,400,000.00
VID fitness	VID	\$	40.00	8000	\$	320,000.00
Vehicle radio license	ZBC	\$	30.00	8000	\$	240,000.00
Re-test – medical	Doctors	\$	20.00	8000	\$	160,000.00
Route Authority Form	City of Harare	\$	100.00	8000	\$	800,000.00
Re-test – defensive	TSCZ	\$	13.00	8000	\$	104,000.00
Re-test - vehicle hire	Driving School	\$	10.00	8000	\$	80,000.00
Operators' license	RMT	\$	42.00	8000	\$	336,000.00
VID garage report	VID	\$	20.00	8000	\$	160,000.00
TOTAL DIRECT CONTRIBUTION					\$	111,224,000.00

From the figures above, it is very unlikely that the government may want to introduce a more regulated bus system. A formal public transport system essentially means that the number of vehicles would be reduced. Further, informants from both the Zimbabwe National Commuter Omnibus Operators Organisation (ZNCOOO) and Greater the Harare Association of Commuter Omnibus Operators (GHACO) raised complaints about the multiplicity of regulatory institutions from both central and local government who have a host of conflicting instruments for

generating revenue, thus, creating a harsh operational environment. Operators are dealing with at least three separate ministries (Ministries of Transport, Home Affairs and Local Government) for them to do their business, thereby creating unnecessary red tape that also results in high cost of doing business. In addition to the costs, other internal operational costs incurred by operators per year are estimated and shown in Table 5.3.

Table 5 3: Internal annual costs of operating a minibus business in Zimbabwe. (GHACO, 2017)

COST ITEM	AMOUNT
Driver's schedule	\$ 5.00
Replacement of smashed windscreens by the police	\$ 120.00
VID preparations	\$ 1,000.00
Replacement of tyres(5x2x \$130)	\$ 1,300.00
Vehicle number plates	\$ 160.00
Zinara licence	\$ 75.00
Radio licence	\$ 30.00
Crew wages	\$ 4,200.00
Service	\$ 1,800.00
Driver Retest	\$ 100.00
TOTAL	\$ 8,790.00

Estimated Revenue at Informal Bus Termini in Harare CBD

This study proved that touts are pocketing money meant for the council. However, the bus operators do not make any loss in the process. Normally bus operators are supposed to enter bus termini and pick up passengers. On their way out, they are expected to pay charges at the bus termini exit. This fee would be for the local authority. But since these termini are dilapidated, they are shunned by the commuting public. This

has resulted in passengers being picked up anywhere. Generally, this is a self-adjusting effect although it is not favourable. If a bus operator decided to rank in the bus termini, they may end up losing out on business. This has left many bus operators opting to pick up passengers informally anywhere in the Harare CBD. It is this informality in the urban management that is leaking potential revenue to the city council and enriching the rank marshals and touts who do not fund maintenance projects at termini they earn from.

On investigation, the researchers unearthed how touts charge for their services. It was difficult to put their charging criteria into a formula because they do more of negotiations as they operate. It was, however, discovered that the maximum touts can charge is the equivalent amount paid by an individual passenger travelling to the furthest destination. For passengers going to the same destination, the tout earns the money paid by one passenger, regardless of the total number of passengers in the commuter bus. Let x be the amount earned by a tout and P be the highest bus fare paid by the passenger travelling to the furthest point.

x = P

It can be drawn clearly that touts can never charge any amount that exceed the total bus fare paid by an individual passenger.

x > P

The normal charge, however, can be negotiated, for example, when one has a smaller bus or when they just receive a few passengers from a tout. Generally, the formula can be accepted if it is presented as follows.

x < P

The above just proved that touts are pocketing money that was supposed to have been collected by the regulator.

Estimated Populations of Informal Operators and their Impacts

There are so many informal operators in the Harare CBD, estimated at756 *kombis*. However, it has been observed that even registered commuter bus operators are using these informal channels popularly referred to as *mushika-shika* or *pahasha*.

Estimated Touts Employed at Bus Termini

The figures found after executing This study found that the figures were very high, with a total of about 1250 youths employed in this industry. Their age ranges from 17 to 38 years. Interviews proved that the rest of the rank marshals and touts travel from distant rural areas to come and seek employment in urban areas.

5.7 DISCUSSION AND RECOMMENDATION

Rank marshals and touts must be banned because their activities are illegal. Comparing with another southern African country's transport system, like South Africa, one will never find any tout at the bus termini but still commuters get to their destinations. This shows that touts are not really value adding and their existence is of no economic benefit. Some touts are reportedly linked with political parties and generally their existence is more on the extortion side, since they demand payment for no service rendered. In this study, potential revenue that would have been collected by the Harare City Council is lost and touts have significantly benefited from the free funds. It is also expected that to completely get rid of these touts, the city council must engage members of the uniformed forces since touts can be violent because of their numbers and lead to destruction of city and state infrastructure, if the move is initiated prematurely.

If the government could deal with increasing foreign direct investment to improve employment amongst youths. The move will lower the number of employed youths roaming the streets of Harare. If youths are occupied are occupied in some activities, they will have other productive sources of income in the form of real formal employment and encourage more to work in various organisations. The indigenisation policy needs to be reviewed and institutions in Zimbabwe should strive to improve the ease of doing business in Zimbabwe. These are some of the suggested solutions that can help improve the

rates of foreign direct investments in Zimbabwe to increase the rate of employment in the country.

The Harare City Council to now start controlling regulation processes for newcomers in the transport business, the laws of demand and supply need to be looked into so that only transport needed is supplied. If there is an oversupply, operators will end up competing for customers, leading to an increase in passenger pick-up points. The increase in the number of these points has a direct effect of increasing the number of touts at many sites. Furthermore, to address this challenge, the Harare City Council needs to reduce the number of commuter operators in the city to a certain level. Further, other state enterprises, such as the Zimbabwe Passenger Company (ZUPCO), needs to be tasked with getting reliable public buses to service Harare routes. Positive results will be realised by having an integrated approach in solving these challenges.

The current bus termini that the council is operating are old and outdated. For them to appeal to the commuting public, work must be undertaken to refurbish bus termini to meet world class standards. Generally, travellers are avoiding old dilapidated and dirty bus termini. One simple strategy that can be implemented to encourage people to use these is by refurbishment. If refurbishments are done, the termini will become aesthetically pleasing and people will flock there. Humans do not want to be exposed to health hazards, so they

shun the dirty and always littered dilapidated current bus termini. In recent times, the most dilapidated infrastructure, dirty places, littering and high crime rates have been at these termini. There is need for council to work towards addressing these challenges to draw the heart of average citizens to start visiting and using these termini.

5.8 CONCLUSION

One can conclude that the Harare City Council has in the past years lost potential revenue from its management system adopted on running bus termini. To correct this position, the study recommends that the council and the country at large should adopt the recommendations and observations made in this chapter.

Chapter 6: Rental Accruals during COVID-19: Prop-Tech Solutions for Effective and Sustainable Property Management

VALERIE C. MATSAUDZA-NTULI & HENRY T GURAJENA

6.1 CHAPTER SUMMARY

COVID-19 made business tough for most players and crippled many small to medium business operators. As a result, companies struggled to honour rental obligations. Governments also used most of its resources to combat the spread of the virus. While governments have various sources of income, small business operators struggled to get back to their feet. Many downscaled, and some even shut down shops. To those courageous enough to continue operating, various coping mechanisms were adopted to see the businesses through. Unfortunately, some unscrupulous elements in the business community chose to defraud property owners of their rental arrears and moved from building-to-building, evading accrued rental arrears in Botswana. This chapter proffers a technology solution motivating real estate property management professionals in Botswana to develop a platform that monitors databases of tenants. The proposed solution can be used to also track changes in the interest of property consumers. It has been motivated because of the anomaly observed when tenants hopped from property to another to avoid paying rentals accrued during the COVID-19 lockdown.

6.2 Introduction and Background

Commercial real estate management is a fundamental function throughout the life cycle of an investment. Investors put money into real estate to safeguard and store value, guarantee a stream of income and shield against inflation. Income is received throughout the useful life of the building. An effective property manager, therefore, should be engaged to ensure that the investor receives the highest possible returns and value from the investment. Kyle, Baird and Spodek (2000) explain that the role of a property manager is much more complex than simply showing space, signing leases and rental collections. They pointed out that the property manager is concerned with generating the greatest possible income for the investor over the economic life of the property. While this profession is especially important, it sometimes encounters challenges. In depressed economic climates like Zimbabwe, inconsistent currencies and policy changes sometimes cause property managers to collect rentals below the regional average, while in growing and developing upper middle-income countries like Botswana, property managers are facing a plethora of challenges such as lack of quality tenants and stiff competition coming from the much active addition to the pool of investments as a direct result of a hyperactive construction industry.

While there is a variety of challenges, this chapter stems from an intellectual curiosity to develop a solution for commercial real estate property managers and owners who are currently threatened by tenants moving from building to building to avoid rental income accrued during the global corona virus pandemic. While the commercial real estate industry's performance greatly struggled because of lockdown measures imposed by many countries in the world encouraging people to work from their homes, property managers still expected companies to pay rentals to cover property expenses and, in some cases, mortgage payments in the case of recent developments. While the period brought challenges characterised by job losses, employees being asked to work remotely from homes, amongst other things, financial organisations such as banks continued to bill their clients for payments and interests. In the same regard, commercial real estate occupiers are expected to pay rental expenses so that property managers settle property expenses by.

A larger percentage of tenants accrued arrears. At least 47.8% of smaller business failed to meet rental obligations at least once since COVID-19 was declared a global pandemic on 11 March 2020 (Gurajena and Sungirirai, 2020). Vantage Properties reported that at least 33% of tenants accommodated by property manager portfolios throughout the country made an inquiry on negotiating a review plan for payment of rentals

during the pandemic (*ibid.*). Some of the tenants who accrued rentals contemplated leaving present rented premises because their rental arrears had ballooned. These given bases have, therefore, motivated this entire study.

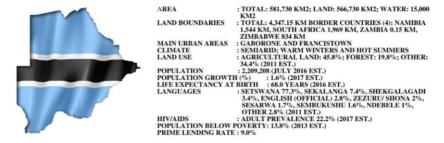


Figure 6.1: General statistics of country under study – Botswana

The state of national emergency was approved by Botswana Government to be effective for at least 12 months ending in the first quarter of 2021. This was a response measure of safeguarding the 2.4 million citizens of Botswana from contracting the novel COVID-19. While the response by government was concerned on protecting lives of citizens, a huge pinch has been felt throughout the industries. Forbes (2020) estimated that 42% of jobs lost because of COVID-19 globally are irreplaceable (Gurajena and Sungirirai, 2020). Manufacturing industries were on standstill and manv companies ceased operations while observing restrictions and rules that were effected by almost all the countries of the world. In Botswana, tenants accumulated huge rental arrears on commercial real estate because of the COVID-

19 lockdowns. Landlords could not reduce rentals because of existing commitments to meet mortgage payments, property maintenance and upkeep and direct expenses relating to real estate properties. Some of the tenants with ballooned arrears indicated decisions to move to other buildings in a bid to avoid rental arrears. Property managers were, therefore, at the verge of losing millions of pulas in accrued rental arrears if tenants moved from property to property as it becomes a mammoth task to trace and recover accrued rentals. This study, therefore, makes a practical contribution to academia by investigating and proposing a solution that will help property managers trace the previous performance of all the tenants renting space throughout the country. The study is, therefore, important because it promotes the property management profession and makes it sustainable through advocating involvement of proptech (property technology) solutions.

The research aim in this chapter was to develop a practical solution for property managers so that they can recover accrued rental arrears accumulated during the business standstill as Botswana responded to COVID-19 pandemic. To understand reality on the ground, the research had questions that include: How can tenants be supported to fulfil outstanding rental obligations? What available solutions are used in the real estate industry in developed countries? How can lease agreements be improved to suggest solutions in cases where businesses cannot operate because of pandemics or natural disasters? How can property managers assess previous performance of a tenant? The research objectives included

proposing a prescription for property managers to recover all outstanding rentals arrears, improving the practice of property management by adding prop-tech solutions in tracking problematic tenants, suggesting better leasing contracts for potential global pandemics or recession periods, and motivating for the establishment of a tenant database in Botswana real estate industry.

The chapter contributes considerably to the real estate industry in Botswana. Real estate is a capital-intensive investment option. It competes with other investment options. For real estate to remain lucrative, favoured by many, it must be consistent and evolve to ensure it remains ahead of any threats and risks that may arise. If collection of rentals is not safeguarded, investment owners will shift their investment to other options. This study is, therefore, important in that it contributes what will help the property management profession in tracking rentals, hence achieve the goals of the property owner, a requirement in maintaining good working relations as well as securing income streams. Unless this study is done, property investors and property managers are at risk of failing to get returns and commission from the property under respective portfolio currently under their management. While the study borrows experiences of property managers from other regions, it is interested in exploring Botswana, particularly. The research forms a yardstick that can then be applied by other countries with similar profiles. Through support for shared knowledge and learning, the study can, therefore, be used to infer similar scenarios, basing all experiences from Botswana.

6.3 LITERATURE REVIEW

Property management - oftentimes people think the duties involved simply include showing space, signing leases, and collecting rentals. However, the expected duties are complex. A property manager is tasked to generate the highest possible net income for the owners of an investment property over the economic life of that property. Normally, a property manager receives commission equal to a certain percentage of the net income. If the goals of the owner are reasonable, ethical and lawful, essentially the property manager seeks to achieve the objectives of and generate incomes for the owners and preserve and/or increase the value of the investment property (Kyle, Baird and Spodek, 2000).

COVID-19 - From 2 April 2020 to 23 May 2020, Batswana were on mandatory lockdown with exception of essential services providers. The lockdown was meant to combat the spread of the novel corona virus. It is widely accepted that everyone suffered at the hands of COVID-19, either by being infected by the virus or by experiencing flexibility challenges due to measures set up in efforts to prevent the spread. The real estate industry was not spared. It also faced massive challenges because of the pandemic. Many businesses could not operate normally, therefore making it difficult for entrepreneurs to meet rental and salary expenses. Because of this, property owners struggled to collect rentals as businesses laboured to raise income. The pandemic effects were experienced globally.

Prop-tech - With the advent of big data, internet of things (IoT), fast internet connections like the planned 5G network to be rolled out by the Chinese mobile company Huawei, the world can now explore from the comfort of one's home through internet and a smart device. The property technology or simply prop-tech industry has seen inventions that are make it easy for real estate managers and stakeholders to manage and assess their real estate investments remotely and intelligently. In the real estate industry, applications, for example MDA, Classic, MRI and Novtel, are being used in management. These applications help a manager to know when maintenance is due or when a lease agreement is about to expire. The applications also help in billing invoices to tenants as and when needed. Overall, proptech has helped in effective record-keeping, tracking of transactions and reporting in the real estate industry. The valuation industry has also transformed and is using special models and algorithms to estimate values of properties. These models are known as Automated Valuation Models (AVMs) and were previously referred to as Computer-assisted Mass Appraisal (CAMA).

In 2006, Alonso registered a patent with the U.S. Patent Application. It was an invention that related to the field of automated security and property management systems and more specifically related to the field of centralised automated and computerised security and property management systems specifically developed for larger sites. These larger sites include office buildings. The patent would help in handling security and maintenance items and other property management topics. The

registered patent had a system comprising security-guard tracking, maintenance and preventive maintenance, and monitoring and tracking security and maintenance events from the initial incident through final resolution (Alonso, 2006). While this was a great invention, it is important to note that the system did not recognise a threat which might materialise from the tenants. Who is the major player as the tents pay both the landlord and the property managers? In 2014, Alonso (2014) also registered another patent that provided for a system and method for facilitating employing augmented reality in an enterprise computing environment. Augmented reality is defined as a technology that superimposes a computergenerated image on a user's view of the real world, thus providing a composite view. This has been notable development that has made real estate sales practice even easier and less costly since there is no need to commute long distance to view properties that are on sale. A display screen of the mobile computing device is then selectively augmented with one or more user interface controls based on the signal (*ibid.*).

The invention made under augmented reality can be used for maintenance management, asset management, or real estate management background. The successful cases of western countries can be used to benchmark against developing systems that manage and follow up on tenants to ensure that property managers are able to perform a deep track record of a potential tenant. In Alonzo's (2014) invention, a first-user option provided through one or more user interface controls, allows the user to interact with a computing object that includes

enterprise data associated with the user. In a specific embodiment, the method further includes providing a second-user option, via one or more user interface controls, to sequence a set of tasks to be performed by the user (*ibid*).

Previously, there has never been a patent advancing real estate management propounded from Botswana. One is of the humble opinion that a system that registers all existing tenants and containing retrievable data of tenants can assist in the practice of property management in Botswana, given that property investors were on the verge of losing from tenants who wished to switch to other properties to avoid rentals accrued during the COVID-19 lockdown pandemic. While the present study seeks to add to the body of knowledge about what is missing in the real estate industry in Botswana, a practical contribution that will involve application developers need to be made.

In general, the property management profession circles around environmental concerns, great information on prop-tech web-based materials, updated internet and information to assist users in the management of their time and reporting of progress and finally increased focus on security issues (Kyle, Baird and Spodek, 2000). This study aims at exploring on commercial real estate. Commercial real estate represents various types of income-generating properties, like office buildings, shopping centres, stores, gas stations and parking lots (ibid.). While commercial real estate is public accommodation since the public has the right to use them, it should be noted that the property is privately owned. Kyle, Baird and Spodek (*ibid.*) noted that the two principal categories of commercial real estate are office property, where occupants are providing services, and real properties where occupants are selling goods.

Property management started experiencing technological advancement with beina reaistered patents acknowledgement of new inventions (Hodges, 2003; Alonso, 2006; Alonso, 2014). While these ground-breaking advancements were greatly celebrated, it should also be noted that the inventions simplified and enhanced the practice of real estate management. Under the frustration caused by problems, problem-solvers develop a strong desire to end a challenge and in so doing invent solutions that work towards addressing an anomaly in an industry.

the Property management refers to administration residential, commercial and industrial real estate, including apartments, detached houses, condominium units and shopping centres (Baldwin, 1994). It involves the managing of daily operations of a real estate investment owned by another party or entity, that is, the property manager acts on behalf of the owner to ensure that properties under his/her care operate smoothly, maintain their appearance and either preserve or enhance in value while generating income. Some of the duties performed by the property manager in a bid to preserve and improve the value of the property vary, based on specific terms of the management contract. However, the key essential responsibilities, as stated by Hodges (2003), include rentsetting, collection and reviewing, tenant selection, maintenance and repairs of the property, supervision responsibility and financial advisory services.

The COVID-19 pandemic caused Botswana's foreign reserves to decline by a staggering P6.2 billion during the 2019 fiscal period. This was reported by Bank of Botswana Governor, Moses Pelaelo. He further noted that diversification was needed more than ever in Botswana to complement revenue from the sale of minerals. All economic agents, including governments, were greatly affected by the effects of COVID-19. Real estate companies with weaker tenants were some of the first to register decreases in rental collections, all contributing to a tough operation period for the players.

Commercial real estate revenues are normally large sums invested on a unit with the intention of getting a good return. To make decisions for such assets, diligent care and good strategy need to be applied. Palm (2013) supported that when making strategic plans for a real estate company, as a rule of thumb, the commercial real estate industry has only two strategic options to consider regarding real estate management and these are either to select whether to have its own frontline personnel (internal management or inhouse) or to outsource this function. Further, a huge decision should be made on whether the leasing task should be treated as a real estate manager's or should it be a function of its own in the organisation. Whatever choices made, the way the organisation responds to the threats and its chances of success depends on

the management strategy being implemented. Overall, when an investor appoints an agent to manage the real estate property for them, the concept of agency applies. This concept is greatly explained under the principal-agent theory. It is agreed that agency is one of the long-standing contractual relations which are old and common and a way of interaction in a society (Ross, 1973).

Whether a commercial real estate company decides to internally manage the properties or lease directly to tenants, the most important stakeholder will remain the tenants as they are the ones who get to pay for the product. Contrary to the norm, COVID-19 brought difficult operating space and ground, disempowering a majority of tenant's ability to pay rent. Matzler and Hans (1998) and Li (2003) noted that the customer is the tenant and highlighted that the cost of obtaining new customers can exceed the cost of retaining present customers. For this reason, it would be a sound economic decision if a commercial real estate company retains tenants through any means. While players in Botswana would love to retain their tenants, it is difficult for them to cancel rental arrears accrued during the lockdown when many businesses had to be on standstill to curb the spread of the pandemic. It is very costly for a real estate company to have high void levels since the property or building costs are there regardless, and the market value can be affected as well. Overall, this leads to the common conclusion that a firm should have a well-outlined strategic plan on how to attract new customers, though the most important task is to satisfy present customers and prevent them from moving since the cost of retention is less than the cost of attracting new customers (Matzler and Hans, 1998; Li, 2003; Ansoff, 1984) defined a strategy as a systematic approach for management to position and relate the firm to its environment in a way that enables continued success.

Finally, in-order for a firm to survive and thrive in a competitive market, companies need to develop and maintain an alignment with their environment (Palm, 2013). The Botswana real estate market is now more competitive since there is a high influx of new commercial space initiated by high construction activities in the new Central Business District in Gaborone. Competitiveness forces the real estate industry to develop a more serviceoriented approach (ibid). While service increases, one ought to safeguard against their interest. Increasing service through prop-tech solutions can be regarded a better plan as it advances the profession. Since the real estate industry is facing new challenges as a part of an increasingly competitive sector Wilson et al. (2001) and Apple-Meulebrock (2008) conclude that to survive in the competitive environment, imperativeness of delivering good service is required by all professionals. This is like just ensuring that a company develops a proper strategy that helps it to retain tenants. Palm (2011) investigated the commercial real estate company's strategies for organising its property management to enable success of the organisation. During the difficult COVID-19 period that slowed economic activities, good management decisions and strategies needed to be applied to ensure a business met its objectives.

6.4 RESEARCH METHODOLOGY

To find out what caused tenants to move from one building to another rental options, depriving landlords and property managers of accrued rental arrears, the study administered guestionnaires to tenants and conducted interviews with property managers/landlords and leadership at the real estate regulatory boards, the Real Estate Advisory Council (REAC) and the Real Estate Institute of Botswana (REIB). The selected participants were the overall key players in the commercial real estate market. Having contribution of tenants would inform the study on the general experience of the tenants. Conducting interviews with various property managers from the listed firms would enable the study to obtain overall technique and approach chosen by majority property firms in handling underperformance because of the present COVID-19 pandemic. Since the research was administered during the pandemic, the researchers administered an online questionnaire through use of google sheets. The researchers also reached out to property managers and obtained tenants' emails giving them a link to provide feedback and express their opinions online.

Seventy percent of all tenants we reached out to, responded to our short online questionnaire. The researchers conducted all interviews through an online zoom meeting. The quantitative responses were presented using various tables, figures, graphs and charts to deduce meaningful conclusions. Qualitative responses were analysed textually and thematically. Secondary sources of data were produced from existing literature to support learning through sharing of best practices and

experiences. The research applied the triangulation approach that is combining quantitative or logical positivism and qualitative or simply phenomenological. Quantitative research is a formal, objective and systematic process to describe and test relationships, examine cause and effect interactions among variables, while mixed involves elements of quantitative and qualitative. Hanson *et al.* (2005) defined triangulation as a technique of mixing available methods while involving the collection, analysis and integration of quantitative and qualitative data in a single or multiphase research.

6.5 RESULTS

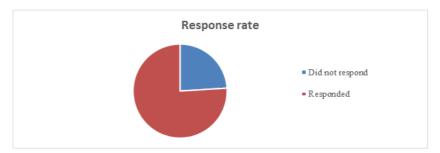


Figure 6.1: Response rate (Fieldwork, 2020)

Table 6.1 shows responses from the key informant interviews. Initially, the aim was to do a total of six interviews, but conducted only five because of tight deadlines one student had to complete the study. We had a 75% response rate from listed property management companies and a 100% response rate from the regulators REIB and REAC.

Table 6.1: Summary of responses received from interviews (Fieldwork, (*ibid.*)

Targeted Population	Number of Interviews	Number of held	Response Rate
	Proposed		
Four Top Listed	4	3	75%
Property Companies			
Real Estate Advisory	1	1	100%
Council Board member			
Real Estate Institute of	1	1	100%
Botswana Secretary			

Socio-demographic profile of tenants that responded to the questionnaire

Respondents were either business owners or an employee who is a key decision-maker in the organisation. Figure 6.2 shows the ages of the respondents. Key decision-makers in companies operating in Botswana range between 25 to 44 years.

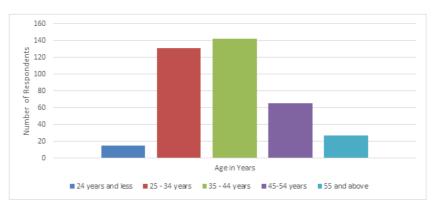


Figure 6.2: Age analysis (Fieldwork (ibid.)

The last world population report revealed an estimated 50.4% of the world's population was male and 49.6% female, highlighting the fact that there were more males than females. Locally, in 2019, Botswana's female population amounted to approximately 1.19 million (52%), while the male population was approximately 1.11 million (48%) (Statistics Botswana, 2019). The research however managed to get a response rate of only 26.3% among females despite targeting both genders equally, and 73.7% from males.

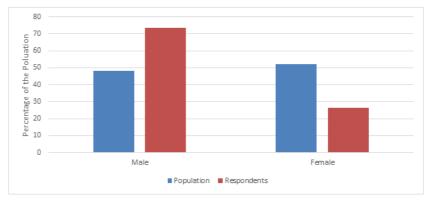


Figure 6.3: Gender analysis (Fieldwork (ibid.)

The researchers also wanted to unearth education levels of respondents. Figure 6.4 shows that 41% of the tenants have a diploma or degree, 53% have graduated with a postgraduate qualification and only 6% a secondary education. It should be noted that everyone needs to be regarded as educated and some might have mis-represented their qualification to appear

educated and sophisticated. The 120 respondents who failed to complete our online survey administered through google sheets might be those who might not have had basic elementary education, hence could have found it difficult to complete the online survey.

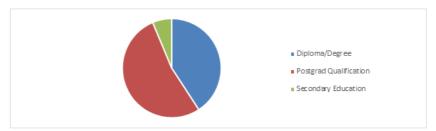


Figure 6.4: Level of highest education attained (Fieldwork (ibid.)

Figure 6.5 shows the summarised results of the number of years respondents have been operating businesses. The highest percentage has been in business for four to six years and constituted 37%, followed by tenants operating for between one and three years (32%) and 63 companies were in business for seven to 10 years constituting 15% of the respondents. The companies that had been trading for between 11 to 15 years constituted only 4% of the respondents and those that traded for more than 16 years constituted 12%. The graphical presentation of the findings is summed up in Figure 6.5

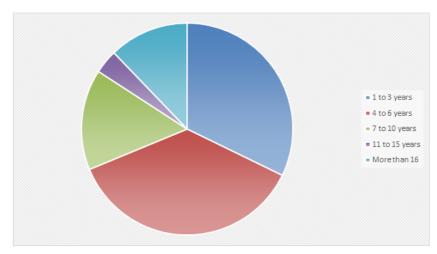


Figure 6.5: Years tenants have been operating their business (Fieldwork (ibid.)

Figure 6.6 shows the description of business interests being pursued by the respondents. About 140 business were unskilled companies involving those organisations selling phones, clothes, or those simple business models. This group constituted 37% of the respondents. The semis-killed businesses included those that require little training, for example, driving schools, offices of security guard companies and this group constitute 7% of the respondents. A total of 91 respondents (24%) ran organisations offering skilled services, for example, electricians and plumbers. Finally, the professional organisations that responded were 120 and constituted 32% of the respondents.

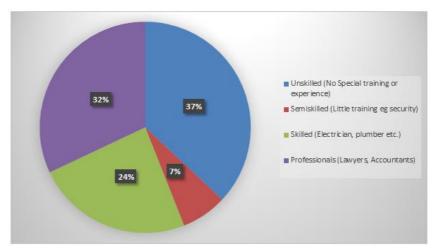


Figure 6.6: Field of businesses by tenants (Fieldwork (ibid.)

Figure 6.7 has a graphical presentation showing the total number of tenants who said that they had experienced challenges when dealing with their property managers. Out of 380 respondents, 254 admitted that they have had some disagreements with the property management, or they felt that the property manager had treated them unfairly, and 126 expressed that they have never had any challenges in their interactions with the property manager or landlord.

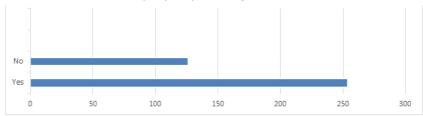


Figure 6.7: Respondents that experienced challenges with their property manager/ landlord (Fieldwork (*ibid.*)

Practical Experiences of Tenants

The respondents that hinted to have experienced challenges with property managers sited common contractual disputes such as delay in fixing premises and unjustified increases of rentals, amongst other challenges. Some tenants were citing that in difficult times, they face challenges with property managers putting pressure on them to honour their rental obligation and settle rental arrears. Some of the cited challenges included conflicts resulting from damages to properties and tenants refusing landlords access for scheduled property inspections.

Tenants noted that their business operations were affected by COVID-19 in many ways. The first common challenge was a loss of revenue which crippled their operations as tenants had to continue paying traditional business expenses like rentals and salaries, yet the companies were not making any revenue. Small businesses were mostly hit as the world faced adverse effects of the world pandemic. Some businesses managed to sail through only because of the wage subsidies which covered 50% of salaries that were extended by the government to every tax paying company.

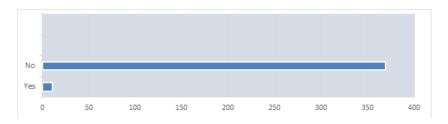


Figure 6.8: Tenants offered rental rebate since businesses were affected by COVID-19 (Fieldwork (ibid.)

Only 11 out of 380 respondents admitted that they were offered a rental rebate of some sort by their property managers. They highlighted that they had to be up to date with their rentals before they applied for the rebates. While some respondents expressed that they did not apply for a rebate, they did not know that one could. During the lockdown, every formally registered company with track a record of operations and paying salaries received financial assistance from the Botswana government through the tax collector, Botswana Unified Revenue Services (BURS) in the form of three months 50% contribution to salaries of employees. This helped small business meet part of their business expenses in employees' salaries. However, the financial assistance was not enough to help business in covering expenses like rentals. This has attracted rental arrears accruals, especially for the small business operators.

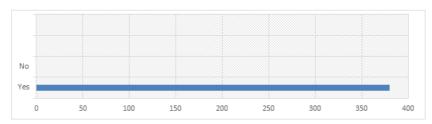


Figure 6.9: Willingness to settle accrued rental arrears by tenants (Fieldwork (ibid.)

All the tenants who completed the questionnaire were agreeable to settling all accrued rental arrears as presented in Figure 6.9. Respondents noted that they would consider moving to cheaper offices, relocate and operate from home or close entirely with the intention of reopening in the future. Some expressed their willingness to continue fighting for their business since they believe that times change, and the future was bright for their businesses.

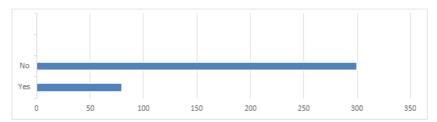


Figure 6.10: Have you attempted to run away from your rental space to other property to avoid paying accrued rental arrears (Fieldwork (ibid.)

The responses obtained and represented on Figure 6.10 indicate that 21.1% of tenants at some point thought of moving

from a building to another to either get a better offer or try to avoid paying accrued rentals. In property management, 20% is a significance percentage that can shape how the portfolio performs. It is also important to note that the question is too and personal direct and some tenants miaht misrepresented since they had a belief that our data collection was meant to aid the operations of property managers. Tenants generally expressed that they have developed a new approach to operating a business having learnt from the experiences during the COVID-19 pandemic. The entire world came to a standstill and the pandemic showed that it can change how people work, play and trade. Many lessons need to be taken from the way lifestyles changed to carefully plan business finances for an event of similar magnitude.

Perspectives of the Real Estate Advisory Council

An online interview through Zoom was conducted with a board member of the Real Estate Advisory Council (REAC) and discovered that the REAC was established in terms of the Real Estate Professionals Act in 2003 to provide for the regulation of activities and conduct of the real estate profession in Botswana and other matters incidental thereto. The Council is responsible for licensing practising Estate Agents, Property Managers and Valuers. The interview helped the researchers to find out that the REAC was not interested in challenges experienced by property managers in executing their duties, but was interested mostly in ensuring that the public is safeguarded against unscrupulous and unregistered professionals. As regulators, they acknowledged that indeed COVID-19 brought difficulties

that also affected the operations of the property managers but had not devised any compensation or relief package designed to cushion their practitioners.

An opinion was sought from the member on the REAC's positions towards prop-tech solutions that can assist in property management. The member responded that the REAC was ready to assist any innovative model that could help improve the industry. The member reported that as a board, they had endorsed GOSMARTVALUE, which is a valuation application developed by Vantage Properties, a local real estate research company operating. The member reported that if they supported Vantage Properties until they commissioned their application, they were also willing and open to support any initiative by a local company to aid the practice of property management in the country. The board member noted that they would appreciate it if anyone could create a database of all tenants so as to track and monitor performance of tenants before one applies for new leasing space with a view of improving real estate practice.

Perspectives of Real Estate Institute of Botswana

The Real Estate Institute of Botswana (REIB) is an association registered under a Societies Act of Botswana. It is a professional body representing interests of property professionals, government, parastatals, public, commercial organisations, property investors, financial institutions and banks on matters relating to land and real property. The

researchers conducted an interview with the Secretary of the REIB and realised that the board is concerned with making sure that the professionals admitted into practice are fully-fledged and trained and can uphold professional values. The interview unearthed that the REIB council also did not make any policies that would protect professionals during in abnormal operating environments, for example, as like in the recently experienced global COVID-19 pandemic . The regulator noted that while they watched as COVID-19 crippled the real estate industry , they noted that livelihoods and businesses were affected and could not intervene to correct the anomaly or supplement income of the real estate professionals.

The REIB Secretary noted that the board is interested in uplifting the profession and would greatly appreciate property technology inventions. The secretary noted that up to date, there has not been any organisation that has approached them with a property management software seeking endorsement or guidance. He, however, expressed that they are willing to offer guidance and input into any organisation creating a platform that contains a database of all tenants which would be used as a prerequisite check when a new tenant applying for leasing space at a new property. The REIB Secretary also said that the board was willing to assist any initiative made by their member, for example, as shown in the valuation profession, when they endorsed an Automated Valuation Model known as GOSMARTVALUE developed by Vantage Properties.

Perspectives of Property Managers

The researchers initially had made arrangement to interview four top property managers overseeing portfolios of leading companies listed on the Botswana Stock Exchange. However, only three interviews from the originally planned four, representing a 75% response rate, were conducted. Property managers all concerted to struggling with rental collections, especially amongst the small to medium-sized companies when companies were closing shop in response to the effects of the global pandemic. Property managers noted that majority of rental arrears were accumulated during the period from March 2020 to June 2020. One property manager admitted they gave rental rebates to the special clients with a good payment history. The property manager dismissed rent rebates request from clients that failed to prove that their underperformance was due to the crippling effects of the COVID-19 pandemic. Property managers noted that they feared to experience principal-agent problems with landlords since they were failing to collect rentals. However, since everyone understood the situation the world was in, it became easy for all parties to devise methods of sailing through the difficult trading time.

Property managers noted that they had been encouraging tenants to pay up in instalments to settle accrued rental arrears. Property managers also expressed that prior to the global pandemic, they did not have any policy aimed at effectively tracking the history and performance of a potential tenant. They said that they would support any initiative that

would help them to vet tenants who have a good credit history and ratings when moving from building to building. Property managers expressed that prior to the global pandemic, they were used to handling the usual challenges and disputes with their tenants in the form of delayed rental payments and vandalisation of property, including repairs and maintenance discussions. However, property managers noted that the lockdown by governments crippled businesses for at least six months as shops were literally asked not to trade but were expected to continue paying fixed costs. Traditional businesses requiring human physical interactions suffered the most and digital enterprises boomed.

Property managers noted that they were complying with the Financial Intelligence Act of Botswana which compelled them to ask all aspiring tenants to complete Know Your Customer (KYC) documents with the intention of identifying potential money launders or those pursuing criminal activities and sponsoring terrorism. The researchers hinted property managers on the creation of a property technology software that stored database of all tenants and could be altered only by a practising REAC and REIB registered professional. From the hint, the property manager expressed satisfaction in the system and highlighted that whoever was considering pursuing the idea should also approach the huge property firms for potential funding so that all companies could benefit and own the technology, as it would be created especially for the local context and the entire property industry stemming to benefit from the innovation.

Finally, property managers could not identify anything that would need to be changed in the real estate industry but instead expressed that it was high time the industry accepts changes, especially in the technology sector and accept that in the 4th industrial evolution, digitalisation of all platforms would make the practice much simpler and safer.

Summary and Recommendations drawn from the study

The major challenge that all property investors are facing is the risk that they might fail to recover the accrued rental arrears by the present tenants. This has been substantiated by the findings in the study. Further importantly, all stakeholders in the real estate industry that include Real Estate Advisory Council, Real Estate Institute of Botswana and majority of the property management and ownership firms were consulted and would all accept a technological platform that aides the practise of sustainable property management in Botswana. Initially the study had four main objectives and this section provides a table that aims to track how the objectives have been met.

Table 6 2: Synthesis of objectives and findings

Research Objective	Comment	Result
To propose a	The study could not propose a	Objective
prescription for	prescription. The study was	partially met
property managers to	successful in disclosing that	
recover all	tenants owed so much to	
outstanding rentals	landlords. Therefore, suggestions	
arrears.	like dialogue, early payment	
	rebates and promotions were	

	recommended to be applied by	
	recommended to be applied by	
	property managers to encourage	
	tenants to clear rental arrears.	
To improve the	The study showed that	Objective fully
practice of property	stakeholders are much	met
management by	appreciative of a property	
adding prop-tech	technology system that records	
solution in tracking	and tracks performance of	
problematic tenants.	individual tenants so that it can	
	be used as a reference point by	
	all property managers when one	
	seeks new space for rent on the	
	next building.	
To suggest better	Interviews revealed that	Objective
leasing contracts for	professionals previously had	partially met
potential future	never arranged and included in	
global pandemics or	their agreement's courses of	
recession periods.	action in cases of disasters or	
	pandemics or any event that is	
	termed an "act of God". Going	
	forward, the study recommends	
	managers to clearly disclose	
	courses so that tenants enter	
	agreements fully aware of their	
	responsibilities even in crises and	
	disasters.	
To motivate for the	The study has created bases for	Objective fully
establishment of a	motivation and would only	met
tenant database in	require technical software	
Botswana real estate	designers to bring into life system	
industry.	expected to bring positive change	
	in real estate industry.	

Table 6.3:Recommendation on constructing the propertymanagement database in BW

Stages	Processes
Ideation stage	
Source an idea	This is the main motivating stage. The
	developers need to understand why an
	application of such magnitude is needed
	in the real estate industry and how it will
	change the practice in general. Once
	one has the appreciation of the issues
	involved, they can effectively deliver
	basing on the needs.
Market research	During initiation, the implementor needs
	to conduct focus group discussions with
	practicing property managers. This helps
	the implementor in knowing the felt
	needs approach and try to imagine the
	functionality of the desired management
	software. Involving the users helps to
	capture all issues involved on the
	platform and increases chances of
	success.
Define functionality	In designing, application developers are
	expected to prioritise the reason the
	application has been created for. For
	example, in this case, it will be
	necessary for the developer to first
	ensure that the application is storing
	database of tenants together with any
	outstanding rentals from past

experiences. Once this is met, it may be necessary for the developer to check if all the registered professionals will be able to edit the data to make the application updatable in real time and improve quality of data. Design stage Sketch the application This stage will basically involve putting the imaginary application on paper so that developers can draw how the developer wants it to appear. This is normally easy as everyone will be fully aware of application functions and users, hence being a simple way of just knowing layout structure of the site. Plan workflow This stage involves noticing and identifying major scopes of work, including reviewing applications for competitors. After conducting reviews, one will must set a plan that describes signup, email, login, password, app, settings and subscription. Wireframe application This involves putting the application on blueprint so that the whole process can be explained on a plan. This process helps in communicating and seeking a validation of the application. Seek early validation This involves engaging the intended	necessary for the developer to check if all the registered professionals will be able to edit the data to make the application updatable in real time and improve quality of data. Design stage Sketch the application This stage will basically involve putting the imaginary application on paper so that developers can draw how the developer wants it to appear. This is normally easy as everyone will be fully aware of application functions and users, hence being a simple way of just knowing layout structure of the site. Plan workflow This stage involves noticing and identifying major scopes of work, including reviewing applications for competitors. After conducting reviews, one will must set a plan that describes signup, email, login, password, app, settings and subscription. Wireframe application This involves putting the application on blueprint so that the whole process can be explained on a plan. This process helps in communicating and seeking a validation of the application.		
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Seek early validation This involves engaging the intended			validation of the application.
	users again and obtaining more	Seek early validation	This involves engaging the intended
users again and obtaining more			users again and obtaining more

feedback on the specifics expected on the application. This is done before one	
the application. This is done before one	
starts building the application. Notes a	ıd
feedback obtained enable learning that	
helps direct the development of the	
Minimal Excellent Product.	
Development stage	
Architect the database This involves reviewing the different	
data to be stored and selecting a	
relevant platform to use. In this	
scenario, one advises the developers to	
use SQL databases. This has an	
extremely powerful query language that	t
allows presentation of data in all sorts	of
useful ways.	
Develop the frontend Frontend is the visual element of the	
database application. It basically	
represents what users see and interact	
represents what users see and interact with. It is normally easy when one is	
with. It is normally easy when one is	
with. It is normally easy when one is using server pages. Your backend	
with. It is normally easy when one is using server pages. Your backend framework is all set up and ready to	0
with. It is normally easy when one is using server pages. Your backend framework is all set up and ready to start building. To succeed, one may als	0
with. It is normally easy when one is using server pages. Your backend framework is all set up and ready to start building. To succeed, one may als set up the development implementatio	0
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with. It is normally easy when one is using server pages. Your backend framework is all set up and ready to start building. To succeed, one may als set up the development implementatio prior to commencement of project. Build the backend The backend is the backbone of the application as it manages the data. Thi	o n

	difficult.
Launch stage	
Host the application	This is one of the last stages and
	includes running the application on a
	server. To host the application, property
	managers would consider buying a
	domain, buying and setting up an SSL
	certificate and, finally, choosing a cloud
	provider.
Deploy the application	This is the last stage that includes
	answering how the application gets from
	the source control on a computer to the
	hosting cloud. Once this is done, an
	application assisting property managers
	will be ready to make positive changes
	in the real estate industry.

6.6 CONCLUSION

The study proved beyond reasonable doubt that property managers are at risk of losing rentals owed if they do not make concerted efforts and develop rental collection strategies and overall improve operations in the real estate industry. Basing on the felt-need approach and the need to embrace advancing with property technology, developing a national database for all the tenants in Botswana, will enable all registered property managers to first conduct a background inspection on them when they apply for leasing space in a property. Developed countries do not necessarily have a database for tenants but do

have a centralised database that can flag and highlight the credit performance of tenants. This normally helps credit issuing organisations or someone considering entering a long-term contract to simply carry out a background check of financial history. The system is expected to be expensive at inception when much effort is required to collect existing data and performance of tenants. To enjoy the highest benefit, registered property managers can consider making annual contributions to help in maintaining the application.

The conclusion to this research is reached by describing the next steps to be followed in developing the application that is supported by regulators that helps improve the real estate industry. Almost all objectives of the study were met and thereby answering all research questions. Overall performing assets compensate for the losses coming from non-performing ones and overall a company is prone to struggle when collecting rentals if most of their tenants are not running established corporates.

Chapter 7: Low-income Housing Solutions: Reviewing Effectiveness of Government's Initiatives to Provide Decent Housing. A Case Study of Botswana

GORATA M. RANKGOMO & HENRY T. GURAJENA

7.1 CHAPTER SUMMARY

This chapter reviews the effectiveness of the government's initiatives to address low-income housing solutions in Botswana. It will first unearth the effort the government has adopted or enacted and reviews them to determine their effectiveness. Assessing effectiveness helps the government to note change and eventually recommend more actions aimed at reaching sustainable solutions to provide decent housing for the lowincome earners. While noticeable efforts have been made in Botswana, for example, activities by the Botswana Housing Corporation (BHC) and the recent Transfer Duty (Amendment) Act (Act No. 24 of 2019), the major missing aspect in literature which this chapter is seeking to plug is the effectiveness of the policies in making housing available for the low-income earners in Botswana. To understand the realities on the ground, the study employed mixed the approach technique for data collection. An online questionnaire was completed through google sheets by aspiring homeowners, while secondary data collection methods through review of published data by

organisations that report on housing, for example the Centre for Affordable Housing Finance in Africa (CAHF) and Vantage Properties Property Markets. Results indicated that many initiatives by the Botswana government were misdirected. The low-income earners do not benefit from the available schemes offered by BHC; therefore, initiatives are failing to benefit the people they are designed for. Because of that, it was recommended that the government should actively facilitate and promote programmes, for example, Rotating Savings and Credit Associations (ROSCAs) and Internal Saving and Lending Schemes (ISLES), that are initiated by the low-income earners themselves since they are the biggest benefactors of initiatives.

7.2 Introduction

The Millennium Development Goals (MDGs) (2000-2015) and the Sustainable Development Goals (SDGs) (2016-2030) aimed a improving the lives of at least a 100 million slum dwellers by 2020. Affordable and sustainable accommodation is still a huge challenge in Africa. UN-HABITAT defines affordable housing as "housing which is adequate in quality and location and does not cost so much that it prohibits its occupants from meeting other basic living costs or threatens their enjoyment of basic human rights" (UNHABITAT, 2011). While the world at large is aiming at providing sustainable housing for low-income earners, developing countries such as Botswana have also been making noticeable efforts to ensure they work towards provision of housing for the low-income earners. This chapter seeks to explore the effectiveness of some of the policies implemented

by the Botswana government in helping its citizens to own houses.

7.3 BACKGROUND TO THE STUDY AND PROBLEM STATEMENT

According to UN figures, only 13% of the world's cities had affordable housing (UN HABITAT, 2016). In Africa, over 50% of the population lived in substandard conditions, whereas in India and China, nearly a quarter of the population lived in informal settlements (Florida, 2017). In 2014, McKinsey estimated that 330 million urban households were living in substandard housing or were financially stretched by housing costs (McKinsey Global Institute, 2014). This was projected to rise to nearly 440 million households, or 1.6 billion people, by 2025 and 2.5 billion people by 2050. Based on median affordability price-to-income ratio), cities in less developed (median countries are found to be significantly less affordable (28% less affordable) than cities in more developed countries (Kallergis, et al., 2018). Millennials across the world are spending more on housing than any previous generation, with a lower quality of life (Judge and Tomlinson, 2018). Based on national reports, it was estimated that no less than 150 million people, or about 2% of the world's population, were homeless. However, about 1.6 billion, more than 20% of the world's population, lacked adequate housing.

Low-income earners are the ones that mostly suffer to obtain housing in any setup. This is attributed to many factors, for example, residential real estate finance. Easy availability of residential real estate finance in Botswana can unlock the intrinsic land value of idle chunks deemed for housing use. Finance triggers development, hence economic growth is achieved. This chapter investigates effectiveness of government policies that are aimed at facilitating low-income earners in obtaining residential finance. The Botswana housing market has many players, these include developers, banks, building societies and a parastatal, the Botswana Housing Cooperative (BHC). While the population in Botswana is growing and the number of expatriate workers is increasing, the housing development market has also been growing to match the increasing demand. Competition for housing has also increased, leaving the low-income earners occupying dilapidated informal housing.

Low-income housing provision is a widely debated scholarly subject, it has been debated by Mendicino, and Punzi (2014), among many other notable scholars. While many solutions for low-income housing have been suggested in different countries, including Botswana, socio-economic backgrounds make it difficult for countries to find the recommended solutions applicable and practical. In Botswana, there is little information regarding effectiveness of the policies and strategies used by the Botswana government to overcome housing provision for the low-income earners. Botswana has enacted laws, for example, Transfer Duty (Amendment) Act (Act No. 24 of 2019), and even set up the BHC by an Act of Parliament (CAP 74.03) of 1971, to all aid the provision of sustainable housing. All these efforts have been noted, but missing in literature are facts on the effectiveness of the strategies in addressing low-income

housing. The prescription addressed to the present excess of challenges is desired to help Batswana to achieve sustainable housing.

The chapter investigates the effectiveness of the Botswana government policies and strategies on provision of sustainable housing for the low-income earners. It seeks to identify and list all policies that assist Batswana to own low-income sustainable housing, to track on the effectiveness of the existing policies and their impact, to identify statistics on number of beneficiaries, to suggest other existing low-income housing solutions implemented in other countries and to determine commitment level by assessing governments efforts towards housing provision.

Universally, urban centres influence economic growth, and the standard of housing has long-term impact on inclusive growth (World Bank, 2015). For most people, buying or constructing a home is the single and largest expenditure they will ever incur. The home is also typically their most priced asset and investment that can appreciate over time, can be used as collateral for borrowing and is an imperative element of intergenerational wealth transfer through inheritance (*ibid/*). Owing to the rapid urbanisation occurring in Africa, the continent will be a leader in the world's urban population growth in the next decades. Africa is presently the least-urbanised continent, only accounting for 11.3% of the world's urban population, with the Sub-Saharan region being the continent's least urbanised. The cities are, however, expanding

rapidly and by 2050, the urban population is projected to reach 1.2 billion, with an urbanisation rate of 58% (UN-HABITAT 2014).

With predicted increase in demand of housing, pressure continues to be put on sustainable housing delivery systems and if the status quo does not change, the urban poor will not be able to afford formal housing, specifically if inclusive housing finance solutions are unavailable. This puts the topic of housing finance at the forefront of the global development agenda (World Bank, 2019). The research was circumscribed to the investigation of effectiveness of housing policies by the government for the low-income urban poor in Botswana. The study focused on developments carried on in Gaborone, Francistown, Palapye, Serowe, Selebi Phikwe, among other established residential cities in the country. These have been chosen for the research to represent reality on the ground experienced throughout Botswana. Pischke & Kohn (2011) remark that affordable housing finance issues are among the most challenging topics in development finance.

7.4 THEORETICAL UNDERPINNING AND LITERATURE ON HOUSING

Residential housing is fundamental for economic growth. Residential real estate houses a factor of production, which is labour. It increases the standards of living in an economy. Rapid and unplanned rural-urban migration increases the population in cities. It should be noted that a large population is a nation's strength when the labour resource is managed properly. Increasing demand for land has caused many to

engage in massive competition for the scarce land in cities. As a result, demand for housing in cities has drastically ballooned. Housing waiting lists are high. Inability by the authorities to contain the situation results in the existence of informal settlements (Chirisa, 2009, 2013). In Botswana, locals are facing competition when acquiring land from expatriates. Globally, housing is a complex welfare good that supplements and mediates the flow of other welfare goods and services at the household level, therefore, making individuals dependent on the state (Doling, and Ronald, 2010). Conley and Gifford (2003) have identified several countries where home ownership is an important policy mechanism in ameliorating the detrimental social effects of market forces in the absence of redistributive programmes. In other terms, the position of housing in national welfare systems is very complex than its role of providing physical shelter.

Smolka and Larangeira (2008) argue that urban policies need to recognise the fact that the poor make up a large portion, and sometimes a majority, of the urban population in developing countries. This is in relation to the Latin American region. However, among the three major developing regions (Latin America, Africa and Asia), Latin America already has high levels of urbanisation. Asia and Africa initiated their urban transition much later, with larger population bases than was the case in Latin America (*ibid.*)). Much literature focus on the levels of housing finance in Sub-Saharan Africa, for example Tomlinson (2007). But it is also important to establish a perspective on

success of governments in providing finances for low-income earners to afford housing.

The Millennium Development Goals (2000-2015) and the Sustainable Development Goals (2016-2030) aimed to improving the lives of at least 100 million slum dwellers by 2020. When governments fail to provide sustainable housing for low-income earners, one resort to various options of acquiring real estate. Housing is viewed as one of the major determinants of the standard of living achieved by citizens (Conley and Gifford, 2003). Generally, it is believed that owning a house is a prestigious achievement in many parts of the world. When measuring someone's wealth and assets, residential real estate is some of the first assets considered and used as a yardstick in valuation. Residential real estate can be used for so many things, for examples it can be used as collateral asset when one seeks funding from financial institutions.

It can be argued that, globally, the principle underlying an asset-based approach to welfare is that, rather than relying on state-managed social transfers to counter the risks of poverty, individuals accept greater responsibility for their own welfare needs by investing in financial products and property assets which augment in value over time (Doling and Ronald, 2010). This implies that, in some societies, buyers seek finance for real estate investments not necessarily because they want to occupy them. Residential real estate will be considered as a lucrative investment that is guarantees good returns as rentals in the future after owners retire or are retrenched.

However, Doling & Ronald (*ibid.*) have noted that in recent years, concerns about the future of national welfare systems have led to many governments pursuing policy programmes promoting the uptake of individual asset building. There have been several initiatives, for example in the USA, Individual Development Accounts have since 1997 encouraged lower-income groups to save by matching contributions with public funds. The total amount of money saved can typically be used for funding house purchase, education, setting up a small business, or a pension annuity (McKay, 2002) as referenced in Doling and Ronald (2010).

Having noted that most people in the developed West invest in property to avoid risks of poverty upon reaching retirement age, it is important to highlight that this is different in some parts of Africa, Latin America and Asia because of poverty and high levels of unemployment. Senbet and Otchere (2005) noted the importance of increasing the development of capital markets and accelerating financial sector reforms as a means of integrating Africa into the global financial economy to attract international capital. Capital will increase employment levels, also increasing construction activities in the nation. The public sector can also directly influence the construction industry as it promotes settlements for factors of production, who are the citizens. In Tanzania, at some point, the public sector ceased housing construction, and home-seekers were left with little choice but to move into unplanned settlements and undertake

their own house construction (Tomlinson, 2007). This proves the need to subsidise the housing industry.

Smolka and Larangeira (2008) argue that urban policies need to recognise the fact that the poor make up a large portion, and sometimes a majority, of the urban population in developing countries mainly found in Africa, Asia and Latin America. If policies recognise this, it will simply imply that solutions to deal and help citizens should also be crafted. One can argue that the government will be expected to assume responsibility of the welfare of its citizens and assist in the provision of the basic Regionally, Syagga (1987) examined the human need. problems of low-cost housing in the African context against the backdrop of high population growth rates, rapid urbanisation, low incomes and a poor economic base. Oldfield (2000) argued that in South Africa, development of low-income housing continues to be a political imperative and an urban reconstruction priority for the post-apartheid South African state. But, even though policies for housing construction and delivery by the state are in place, in practice, many people are homeless. South Africa is facing a low-income housing crisis, with the backlog estimated at over three million units in 2006 (Pillay and Naudé, 2006). Overall, the delivery of housing to low-income citizens across South Africa reflects the state's realisation of citizens' social rights to housing and can help to strengthen a citizen's sense of belonging (Patel, 2016). Much research on housing issues has been recorded. Further other notions by Wilkinson (1998)the development of housing policy in South Africa from its

emergence in the 1920s as a response to social and public health problems associated with accelerated urbanisation to its deployment as a vehicle of 'reconstruction and development', while Goebel (2007) argues that low-cost housing provision has been a major focus of government in post-apartheid urban South Africa. Goebel (ibid.) posits that while successes can be noted, there is growing concern regarding the social and environmental sustainability of housing programmes and the Goodlad, (1996) enguired why impacts. progress has been so slow by examining the nature of apparently the housing challenge faced by the government of South Africa.

In Botswana, acts of statute like the Transfer Duty (Amendment) Act (Act No. 24 of 2019) and even the setting up the BHC by an Act of Parliament (CAP 74.03) of 1971, are proof that concerted efforts were made by the government. Unfortunately, no such effort has been recorded in assessing how effective these establishments have assisted low-income earners. While the BHC has managed to build and commission so many projects, it is sad that low-income earners are not many of the clients as they cannot afford the prices the houses will be sold for.

One can argue that only when organisations with the highest capacity are awarded an oligopoly status in developing social housing for low-income earners, funding for low-income housing will increase in the market. To achieve improvement in low-income housing supply, one can argue that only the government can create an overall board which will monitor the

activities of the BHC so that desired outputs are reached in the market.

Liquidity and finance challenges are compelling low-income earners to engage in alternatives they think can get them housing finance. Home-seekers are sometimes using political influence to threaten local planning authorities and possess councils land without payment. In some settlements, some households are allocating state or tribal land illegally. These are all desperate strategies adopted with the hope of being a proud owner of a house at the end. However, it is unfortunate that when individuals allocate each other plots, some do so without obtaining planning approvals from the respective planning authority. Tin creases health hazards on the informal settlements.

Housing is a human basic right. The government is responsible for provision of social housing for its citizens. Affordable housing is "housing which is adequate in quality and location and does not cost so much that it prohibits its occupants from meeting other basic living costs" (UN HABITAT, 2011). More than 300 million households lack affordable and sustainable housing in Africa. The UN reported that only 13% of the world's cities have affordable housing (UN HABITAT, 2016). In Africa, over 50% of the population live in substandard conditions, whereas in India and China, nearly a quarter of the population live in informal settlements (Florida, 2017). It was estimated that 330 million urban households were living in substandard housing or were financially stretched by housing costs (McKinsey Global

Institute, 2014). This is projected to rise to nearly 440 million households, or 1.6 billion people, by 2025 and 2.5 billion people by 2050. Based on national reports, it's estimated that no less than 150 million people, or about 2% of the world's population, are homeless. However, about 1.6 billion, representing more than 20% of the world's population, lack adequate housing. The referenced evidence shows that social housing is not only affecting Botswana but is a common problem around the globe. An integrated approach is, therefore, required to solve this world challenge.

In Botswana, the housing backlog stood at about 36 000 units. Vantage Properties (2019) reported that in 2011, the government pledged to build 10 200 low-income houses by 2020 through the BHC, established by the Botswana government, to address the housing backlog. However, by 2018, only 3 200 units had been constructed. A survey carried out on ground revealed that most of the units completed were viewed as lacking an important element of the Triple As analysis which is accessibility affordability and availability. Table 7.1 investigates the Triple As, a checklist propounded by Vantage Properties analysing accessibility, affordability and availability of social housing in a particular area. The table synthesises the developments recorded against estimated demand where there is gap in sustainable housing supply. Results give an overall a basis for concluding whether the housing provided is accessible, affordable and available.

Table 7. 1: A synthesis of the Triple As analysis.

City	Accessibility	Affordability	Availability	Demand	Supply	Developments
Gaborone	Average	Expensive	Scarce	High	Low	Moderate
Francistown	High	Expensive	Average	High	Average	High
Selibe Phikwe	Average	Expensive	Scarce	Low	Low	High
Palapye	Average	Expensive	Scarce	High	High	High
Maun	Average	Expensive	Scarce	High	High	High
Kasane	Low	Expensive	Scarce	Average	Av	High

In 2019, Vantage Properties reported that Gaborone has a diminishing supply of low-to-middle income housing, with most people, on average incomes, finding it difficult to locate affordable housing or finance building their homes. The drift to smaller and cheaper properties has been reinforced by an increased number of single-family households due to growing student and elderly populations. Many residential buy-to-let investors are struggling to find tenants, particularly as expatriate workers have found it difficult to renew work permits. Demand for multi-residential housing has increased and developers are increasingly tailoring schemes to the demands of average local buyers and tenants. Sales at the high end of the market are far less frequent and likely to stay muted for some time.

The recorded statistics of completed units by the BHC can deliver housing though many home-seekers are failing to meet the requirements to qualify to purchase the developed units. Therefore, the low-cost housing sub-sector is experiencing a lower supply due to the absence of institutional capital for the housing sector. Supply of approximately 3 000 apartments was expected in 2019 and to grow in 2020. However, 2020 was subsequently affected by the COVID-19 pandemic. The Triple As assessment should be, therefore, used as a standard in measuring effectiveness of available housing ownership strategies being applied. A good affordable housing offer in a developed world should be one that is accessible, affordable and available. Botswana is encouraged to review these factors after completion of a project and set up best prices to accommodate the average populace.

Government Policies: Activities of the BHC

The Government of Botswana set up a parastatal, the BHC, by an Act of Parliament (CAP 74.03) of 1971 revised 1st April 2012. The corporation's mandate was expanded in accordance with Presidential Directive Cab 20 (B)/2010. The directive pronounced that all government housing implementation programmes be transferred to the BHC to operate as Government's Single Housing Authority (SiHA). In compliance with the directive, the BHC was, as from 1st April 2012, responsible for the construction of turnkey SIHA projects, Public Housing Initiative, youth housing as well as district (Housing Botswana Housing Corporation, 2020).

The corporation has completed several SiHA projects in various constituencies around the country. Furthermore, it has identified plots for construction of public officer's houses through the Public Housing Initiative. The current products offered by BHC are summarised in Table 7.2

Table 7. 2: Current products offered by the BHC (BHC, 2020)

Scheme	Details
SIHA Low Income Housing Programme	Self Help Housing Agency (SIHA) established in 1973 to assist the low-and middle lower-income earners to access housing in urban areas. Government took a decision to extend the SIHA programme to non-township areas in terms of Government Paper No. 2 of 2000 (National Policy on Housing in Botswana).
SIHA Home Improvement	The main objective of this scheme is to provide funding for extension or renovation of an existing house and/or completion of an existing house or an unfinished structure. Beneficiaries of the SIHA Home Improvement loans are expected to start construction of their houses using their own resources and the SIHA loan would be utilised to complete the projects. Councils undertake inspections on site to ensure applicants have already started constructions before the loan can be released. The assessment must be done to verify the level of development and the loan is granted only if the required amount would allow for the completion of the project. Materials purchased by the loan must strictly be used to build the proposed structure and failure to do so is a violation of the agreement. The maximum loan entitlement is P60 000.00 The repayment period for the scheme is 20 years at no interest, while 10% interest is charged to beneficiaries defaulting on their payment. The implementation of the

	programme is decentralised to district councils with the Department of Housing providing policy guidance and funding. Beneficiaries' applications and the home improvement construction process is administered by district councils.			
SIHA Turnkey	The programme involves the design and construction of			
	basic core houses for eligible low-income earners. Upon occupation, the beneficiaries pay the cost of the built houses for a period of 20 years at P375.00 per month at no interest, save for a penalty interest charged to beneficiaries who default. The turnkey loan amount is P90 000.00. The implementation of the programme is decentralised to district councils with the Department of Housing providing funding. The beneficiary identification and loan repayment administration processes are handled by the district councils. Construction of the			
	heneficiary houses is undertaken by the BHC			

Government Policies: Transfer Duty Act

Transfer Duty (Amendment) Act (Act No. 24 of 2019) commenced on 1 March 2020. The government of Botswana published under Statutory Instrument No. 18 of 2020 that the Transfer Duty (Amendment) Act shall come into operation on 1 March 2020. The amendment brought along a series of changes and caused much debate in the Botswana tax discourse. The Minister of Finance and Economic Development, Dr. Thapelo Matsheka, announced on the 3rd of February 2020, that Batswana should buckle up and expect to see the changes effected, becoming effective commencing on that date. The Act would affect how real estate assets traded, in that they would become more expensive. The amendments adopted were motivated by various factors with the main purpose of

encouraging land and property ownership by Batswana, discouraging land acquisitions by foreigners. The main changes that were brought by the amendment would enable first-time citizen homeowners to be exempted from tax from P200 thousand to P1 million and a 30% transfer duty tax for non-citizens. The exemption aimed at making housing cheaper and affordable for the local low-income earners.

The amendment of the Capital Transfer Tax Act 2019 operationalises the objectives of the 2015 land policy. In particular reference, the first four objectives are affected by increasing the threshold capital gains tax when a foreigner is purchasing a property. It is expected that this will make properties more expensive. Botswana had a depressed real estate market (Vantage Properties, 2019) and it was expected that the amendment would make properties more expensive. It was projected that the Amendment would reduce the number of willing buyers on the market, though there were meant to help Batswana to afford housing. With the new development, it was expected that property would take longer than normal to be sold to the next buyer. An educated guess suggested that the amendment would reduce the number of buyers on the market since foreigners would be charged more than locals. Technocrats and analysts interpreted the amendment as a case of the government shooting itself in the foot. The policies of Botswana encouraged FDI but the move to increase 30% transfer duty tax for non-citizens discouraged ownership of land which is a necessary factor of production before one can invest capital. While the act was commendable for its efforts of lowering cost when citizens purchase housing for the first time, it seemed to fail to consider the opportunity cost of potential business to be lost from non-citizens.

The amendment tax exemption to first-time citizen (residential property and undeveloped homeowners intended to be used/developed as a home), would make it easier for parents to transfer their properties to their children during their lifetime without tax. The move would also further enhance immovable property ownership by citizens. Further, the citizen exemption which stood at P200 000 was increased to P1 million, representing a 400% increase, making property ownership much easier for citizens. The amendment meant that citizens would not pay tax on the first P1 million of the value of immovable property they purchase. This exemption could be enjoyed multiple times in a tax year or in one's lifetime as it is not limited. This is concrete evidence that the government was working towards empowering their citizens to take up space. To complement the move, the 18% unemployment rate needed to be reduced and wages increased so that home-seekers could afford to take up mortgage loans in efforts of owning residential houses.

The Amendment Act increased the transfer duty for non-citizens from 5% to 30%, which means that such persons would fork out more if ever they intended to purchase land. Previously, both citizens and non-citizens used to pay the tax at 5%, with non-citizens paying 30% only on the acquisition of agricultural

land. This increase was likely to make the acquisition of property by non-citizens a mammoth task due to the costs involved. However, non-citizens would pay only 18% transfer duty if they managed to acquire property from VAT registrants, i.e., they would pay only the difference between the 30% and the standard VAT rate of 12%, which was altered to 14%. The increased tax could also remove most of the non-citizens from the purchasing pool, which would likely cause a slowdown in property sales. Exchange rate of properties measure economic activities. After the implementation of the Amendment Act, property exchange rates were expected to decline, representing a slow transaction of property. It was projected that property values were likely to decrease as the sellers would be competing for the few available buyers. This would cause banks to struggle in recouping initial outlay on properties that were sold after mortgage defaults and finally the properties could take longer than the normal time on the market before it attracting a potential suitor.

Lessons Learnt

The adopted transfer duty act has negative and positive implications on FDI and DI. The amendment is being considered a selfish act in that it discourages ownership of land by foreign nationals. All the costs involved in the acquisition of a property are borne by the purchaser. This means that the act is effectively increasing the values of properties for foreigners. Effectively, the government is interpreted to be saying the correct things when encouraging FDI, but acting the wrong way

by enacting laws that discourage foreigners to invest in the country. FDIs aligned to residential estate developments are likely going to shrink. Foreigners who already own properties might cling onto their properties, afraid that they will pay more to buy new properties. Few Batswana might benefit from the amendment as they will be the new entrants capitalising on the act. Overall, properties around the country might reduce in value and transactions decrease in the coming period. The amendment threatens overall economic growth of Botswana. Further, the BHC had good intentions. However, the 18% unemployment rate, especially amongst the youths, disqualified most of low-income earners to afford to be accommodated on any of the projects that are offered by the BHC. It may be argued that while the initiative is clear, the cost of homes eliminates majority of low-income earners.

7.5 RESEARCH METHODOLOGY

The study obtained data through interviews with low-income earners, representatives of the BHC and political leaders directly involved in strategy and policy implementation. Two different interview guides were prepared and administered to the two main groups of respondents, the BHC and politicians. Applicants completed an online questionnaire through google sheets since the COVID-19 discouraged social restrictions physical interactions. Qualitative data were presented textually and contextually while quantitative data were analysed using graphs, charts and Excel presentations. The research develops practical suggestions for the Botswana government to consider

policies that can be more effective on low-income housing. The targeted populations were those 22 years or older and sought to purchase a home for the first time, or those who were actively seeking to purchase or construct homes for the first time. Respondents were reached using online platforms such as Facebook groups and estate agents' databases, where people were actively seeking to acquire homes and from leaders of targeted institutions. Selected key informants included people with vast experience and knowledge in the low-income housing and policy-making politicians in Botswana.

7.6 RESULTS OF THE STUDY

Figure 7.1 shows the number of respondents in comparison with the targeted audience for the questionnaires. There was a response rate of 72%, which is above the 70% ideal response rate as recommended by Saunders *et. al* (2003). Therefore, the inference obtained from the research is adequate to derive pragmatic conclusions.

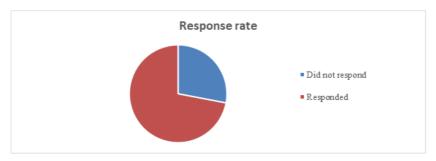


Figure 7.1: Response Rate (Fieldwork, 2020)

Socio-demographic profile of survey respondents

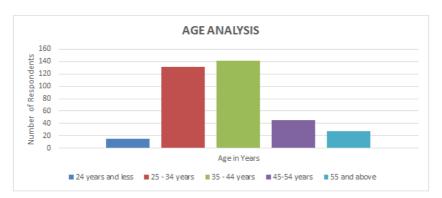


Figure 7.2: Age analysis (Fieldwork, 2020)

The age analysis in Figure 7.2 shows that only 15 of the respondents were 24 years and below, while the majority were between the ages of 24 to 44, representing more than 75% of the respondents, The low contribution by respondents of 24 years and below signifies that most individuals obtained their first homes after the age of 25 years, while the low from 45 and above was due to the mode of obtaining data used, which was electronic through the use of Google Sheets.

Figure 7.3 shows that 56% of the questionnaire respondents have a postgraduate qualification which may present bias as this is not a true reflection on the targeted respondents. This has been due mainly to the method in which the data was collected which targeted those who were able to access internet services and familiar with the electronic data collection tool. Almost forty percent (38%) reported to have a first

diploma/degree, while only 7% had only secondary qualifications.

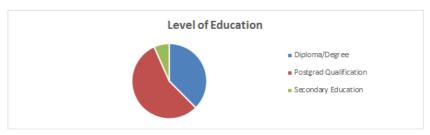


Figure 7.3: Level of Education (Fieldwork, 2020)

As shown in the Figure 7.4, 65% of the respondents professed to own their own homes with only one respondent aged 24 years or less owning their own home through gift/inheritance. The results showed a difference positive variance of approximately 9%.

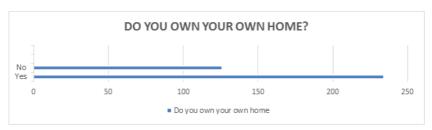


Figure 7.4: Home Ownership (Fieldwork, 2020)

The shows that The number of people who own homes increases with age, with 92% of those 55 years and above owning a least one residential dwelling, demonstrating the relationship between age and homeownership (Figure 7.5) .

Only 1 (one) of the respondents aged 24 years or less owns a dwelling gotten through gift or inheritance rather than the normal acquisition represented by most respondents. The 45 to 54 years age range accounted for 86% of the respondents owning a home, while the 35 to 44 years age range and 25 to 34 years age range had 66% and 56% of the respondents, respectively..

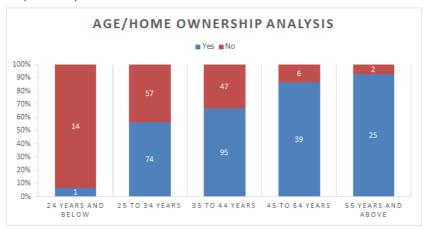


Figure 7. 5: Age/Home Ownership Analysis (Fieldwork, 2020)

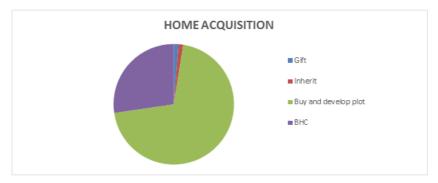


Figure 7.6: Home Acquisition (Fieldwork, 2020)

As shown in Figure 7.7, approximately 70% of the respondents acquired their first homes through purchase of plot and constructing their homes themselves. The study shows that only 27% bought complete houses from the BHC,55% of those using mortgage facilities by banks, 35% paying the full purchase price from savings, and only 10% using developer finance. Developer finance is normally very steep as developers may require one to pay at least 30% upfront as deposit and the balance within six to 24 months. People tend to shun such options of purchasing completed dwellings through developer finance.

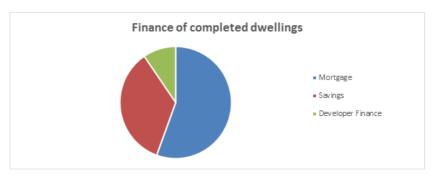


Figure 7.7: Financing of completed dwellings (Fieldwork, 2020)

Land accessibility

Due to the unavailability of mortgages for low-income earners and the costs of funding the purchase of their own homes, most Batswana have resorted to buying vacant residential stands and developing the houses themselves. This is a cheaper option for most home-seekers. This has led to developers and local

authorities focusing mainly on providing undeveloped plots. This way home-seekers can spread payment over long periods of time and stretch what is affordable to them. Though this ties down people to paying rentals and construction costs simultaneously, it is the option available to many. In some instances, home-seekers opt to construct a temporary structure on the plots to live in.

A high demand of plots in big cities such as Francistown and Gaborone have been noted. Registered and titled land is comparatively expensive while tribal land is cheaper but tends to be very risky with home-seekers likely losing their money since they do not have title over it. The form of land and property ownership in Botswana is mainly in the form of title, tribal and state land. Figure 7.8 shows that of the 167 respondents who purchased undeveloped plots, 58% had personal rights to that land through tribal lands and 42% bought legal rights and received their title deeds.

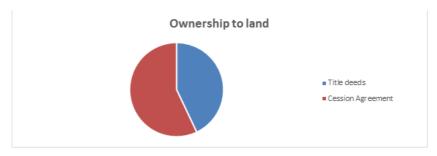


Figure 7.8: Form of land Ownership (Fieldwork, 2020)

Key Takings from the BHC

The BHC plays a crucial role in financing the built environment. While most products do not seem to serve the urban poor, the BHC is willing to give assistance to any local who meets their criteria. The BHC has had challenges where the target market, which is the low-income group, did not qualify for their products and the middle-income was not interested in the product. This gives rise to the project having a slow uptake and, therefore, forcing the project managers to review down prices at some point. Even if the low -income group was interested, they would not qualify or had to come up with proof of finance and sometimes high deposits to be able to make acceptable payment plans towards the purchase of the properties.

To receive assistance, it is offered starting mainly from the middle-income groups earning from BWP8 000 and above. This is regarded as sustainable and low risk for the institution. With the country having a minimum hourly wage of BWP6.77, it becomes difficult for average one to qualify to purchase a house. However, professionals and technicians like nurses, doctors, and teachers and basically all those employed by the government and its parastatals can afford housing.

Some of the urban poor also face challenges of accessing banking facilities, as they cannot meet the basic Know Your Customer (KYC) requirements to open accounts. Low-income groups are excluded as they are unable to demonstrate their capacity to repay because most are informally employed or run

unregistered small businesses such as street vending. Under services offered by the BHC, these groups are excluded because of lack of affordability. Finally, it should be also noted that the BHC also serves customers owning plots in a construction arrangement. This is a great way of partnering the house-seekers in achieving the overall desired goal. The value of structure constructed is limited only to the value of the land which one owns.

Experience of Government

Urbanisation has put pressure on the existing infrastructure that was previously designed to accommodate a smaller population. Urban population growth continues to put pressure on the demand for land and housing in urban centres. Botswana has a housing backlog of about 36 000 units. Private property developers could play an important role in housing delivery. However, these developers target upper middle- and high-income clients since low-income earners get way too little to be able to pay back for home ownerships in urban areas. It has been argued that the increased population has exerted enormous pressure on land, leading to shortage of land, thereby creating squat. This has generated an increase in conflict between land boards and the squatters generally.

The recorded housing backlog of $\pm 36\,000$ units out of $\pm 500\,000$ in the country led to authorities assigning institutions, such as the BHC. For example, in 2011 the government targeted to

build 10 200 low-income houses by 2020 through the BHC. These efforts saw positive change since it was once recorded that the BHC had over 17 000 houses in the urban centres, in addition to having over 7 500 housing units through institutions and councils. The BHC is the largest housing developer in Botswana because of the huge financial assistance it receives from the government.

A local housing waiting list is maintained for all first-time potential homeowners where those who aspire to own a home in the city register their interests and purchase a potential homeowners account which must be maintained through monthly subscriptions. Affordable housing contributes to social development and functionality of cities as articulated in the United Nations SDG number 11 and Millennial Development Goal (MDG) Number 7, Target D, which aim to achieve sustainable cities and communities, and achieve housing for all, respectively.

7.7 SUMMARY AND RECOMMENDATIONS DRAWN FROM THE STUDY

The major challenge in the housing market is the government initiatives failure to craft products priced for the low-income earners. Table 7.3 shows the status quo and suggested measures that can be taken to improve housing supply and affordability policies in Botswana.

 Table 7.3:
 Synthesis of findings and solutions.

Stakeholder	Current Status	Recommendations
Central	Enacted laws that provide for	Review policies around the poorest
government	establishment of the BHC. From	groups in the country. Also increase
	time to time, politicians effect laws	the minimum wage rates for the
	that support ownership of property	majority to be able to afford.
	by locals, for example Transfer	
	Duty Amendment Act.	
		The government should update all
		acts and policies that affect the
		housing value chain to ensure
		Botswana is in tandem with the
		international community and recent
		technologies.
	As reported in the research results,	The government should consider
	there are less subsidies provided	initiating programmes that assist
	by the government to help provide	the urban poor and the un-
	housing for the poor.	bankable groups of society as a
		means of easing the pressures and
		stress that come with seeking
		housing.
ВНС	Banks and the BHC finance only	Continue to offer home
	the purchase of titled and	improvement salary-based services
	completed structures rather than	to those who are too poor to qualify
	providing loans for housing	for other products. Also encouraged
	construction sometimes. Housing	is to device varied products so that
	affordability for people in the lower	the poor can find what matches
	50% of income distribution, is a	their earning levels.
	major challenge in countries across Africa, Botswana included. Such	Advised to continue with rent-to-
	citizens cannot afford a modern.	buy (build, operate, transfer [BOT])
	completed house, what is regarded	low-cost houses targeting the low-
	the cheapest, and hence are	income groups through Public
	restricted to informal or semi-	Private Partnerships (PPPs) with
	formal, incremental housing.	property developers and banks.
Home-seekers	Botswana's Unemployment rate	Home-seekers could adopt
The security	increased to 18.72% in December	alternative society-based finance
	2020, from the previously reported	schemes such as ROSCAs and
	18.19% in December 2019. The	ISLES. These schemes encourage
	rate is updated yearly, available	savings at community level and, if
	from December 1991 to December	applied earnestly, could be used to
	2020, with an average rate of	finance housing incrementally, one
	17.90 %.	member at a time.

7.8 CONCLUSION

While Botswana has appropriately functioning land markets and strong formal property rights, it suffers from low, unregulated and informal incomes; weak land regulation; lack of housing products for low-income earners and their limited access to finance, negatively affecting the provision of adequate housing to all. Moreover, the Batswana government need to take up the housing provision as one of its major urban value drivers and influence the private sector and home-seekers into behaviour that discourages slum dwellings. The value chain of housing could be a starting point to rewrite policies and acts that reflect the current social ills and challenges. Such policies will help in ensure inclusive solutions for all. Furthermore, home-seekers. particularly the urban poor, need to engage in self-help community-based programmes such as Rotating Savings and Credit Associations (ROSCAs) and Internal Savings and Lending Schemes (ISLES) that will help in housing provision, together with developer finance and micro-finance. Such measures will incrementally assist home-seekers in owning their own home someday.

Chapter 8: Home Ownership Challenges in Zimbabwe: Experiences of Households, Banks and Local Authorities

VIMBAI M. MAUMBE

8.1 CHAPTER SUMMARY

Home ownership is the keystone of wealth and social security. A society's success is measured by its ability to provide housing to its poorest members. This study analyses the extent to which Zimbabweans are adequately housed using existing funding and housing finance facilities. The primary objective of the study was to explore the extent to which the urban poor are facilitated in acquiring adequate housing by the Government of Zimbabwe. The research design used was triangulation. Questionnaires and key interview guides were the research instruments used. Key findings of the research revealed that the Government of Zimbabwe does not assist its citizens in ensuring adequate housing and that more than 90% of first-time homeowners use developer and savings to acquire land or housing. The research also discovered that 70% of the population could afford to purchase only vacant land and not complete structures. The study recommends use of communitybased self-help mechanisms by home-seekers and for the authorities to update policies on the housing value chain to improve on housing delivery.

8.2 Introduction

The 21st century has revolutionised in all aspects of life. Technology has changed the way we live our lives, and what to expect out of it. Medical care and treatment have drastically improved, and we find ourselves in an era where infant mortality is at its best, or worst, life expectancy has improved and everybody, at least the economically active, wants to live in the city. As we celebrate these successes, there are social challenges that continue to manifest in our societies, and one of those is the provision of affordable and adequate housing to all urbanites of the earth.

Adequate housing is a fundamental human right. Noted world organisations such as the United Nations (UN) and the World Bank are collectively challenging social ills to influence provision of affordable and adequate housing to member states. The UN crafted two development goals that aim at changing the current housing crisis, with the Millennium Development Goal 7 (MDG-7) aiming at environmental sustainability and, Sustainable Development Goal 11 (SDG-11), which seeks to achieve sustainable cities and communities around the globe. This is a more short-term goal, well defined and impactful measure that could be used to influence affordable housing.

For most Zimbabweans, the 'dream home' is a brick walled house supporting roofing sheets comprising at least two bedrooms, sitting room, kitchen and bathroom, a boundary walled with a small garden, sitting on a 200m² plot. Though it may sound as humble as a starter home, to most, a third of urban dwellers, it is mere fantasy. Owing to the economic and political environment of Zimbabwe, the ever-increasing costs of home acquisition or development in comparison to average income, the dream continues to be elusive.

Researchers at the UN-Habitat, Shelter Afrique and the AfDB (African Development Bank), among others, believe that we are 'at the dawn of a new era' where an estimated 66% of the world population will be living urban towns and cities by the year 2030. We are, therefore, existing at the age of "unprecedented, rapid, irreversible urbanisation" (UN-Habitat, 2020). The fasted growing cities are in developing countries and their rapid growing neighbourhoods are slums. The total population of slum dwellers is estimated to have hit the one billion mark, about 13% of the world's population (World Bank, 2019). And this is a ticking time bomb. Rapid urbanisation and relatively slow economic growth, or decline in other economies, has led to high urban poverty rates, overcrowding, rapid growth of slums and substandard housing existing in precincts with no roads, sewer, water or electrical infrastructure. Housing provision and housing finance encompass challenging policy matters. Welfare, political and economic interests overlap and collude (Pischke and Kohn, 2011). Results of non-existent and poor government policies can have great influence, impacting

the housing market at both national and international level, as seen in the subprime mortgage bubble that originated in the USA that triggered the Global Financial Crisis (GFC).

Understanding housing as a fundamental need is guite simple. Adequate housing is among the most essential human physiological needs as portrayed by the Maslow's hierarchy of needs, everybody needs shelter. Contrary to other physiological needs such as air, water, reproduction and sleep, acquiring adequate housing and housing amenities requires significant financial sacrifice which is beyond the reach of the urban poor. Added to housing being a visible dimension of affluence and poverty, the World Bank substantiates housing as representing most of the wealth available for distribution among the poor in developing countries, accounting for an estimated 80% wealth among the socio-economic group in subject. "Housing finance brings together complex and multi-sector issues that are driven by constantly changing local features, such as a country's legal environment or culture, economic makeup, regulatory environment, or political system" (Chiquier and Lea, 2009).

Boleat (1985) describes the purpose of housing finance systems as the means through which home buyers are funded. Funding housing is noble, but its impact is limited, particularly in a low-income country such as Zimbabwe. Nevertheless, the rudimentary simplicity, in countries such as South Africa and

United Kingdom, due to government action, complex housing finance systems have been established to accommodate the growing demand for housing. Financial systems have been developed to channel investor funds to those seeking to acquire homes (*ibid.*). The demand for housing, measured by local governments' waiting lists, particularly in developing countries, is live and growing, but its effectiveness will be achieved only by the economic systems ability to convert investor funds into mortgage products at low risk and acceptable profits.

Αt present, Africa is the least urhanised continent accommodating only 11.3% of the urban world's population, but with the anticipated revolution, the UN-Habitat (2014) projected a 58% urbanisation rate in Africa in the next 20 years. By the year 2030, researchers at the World Bank, the UN-Habitat and the International Monetary Fund (IMF) institutions, among others, estimate that three billion people will need new housing in cities worldwide. This substantiates the need for Zimbabwe and other developing countries to develop strategies inclusive of the urban poor to cater for the projected future demand of housing as well as to reduce the population of slum dwellers in urban areas. The concept of housing finance is fundamental to Zimbabwean cities combating the challenges they currently face as illustrated in Figure 8.1 showing an increase in slum dwellers over the past 30 years.

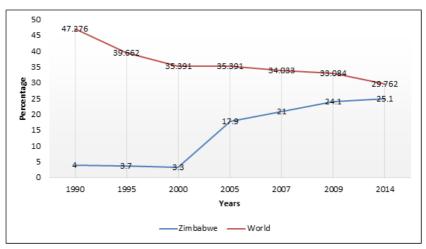


Figure 8.1: Percentage of Population living in Slums (World Bank, 2014)

As indicated in Figure 8.1, urban cities in Zimbabwe have proved to lack adequate housing, demonstrated by substantially large and an increasing number of people living in slums, overcrowding and informal housing conditions as well as the growing demand for affordable housing represented by local government's housing waiting lists in all major cities. In 2019, Zimbabwe had a population of approximately 14 million people, with a 32.21% urban population (ZimSTAT, 2020). In the year 2014, an estimated 25% of the urban population lived in slums which is an exponential increase from 4% in 1990 as shown in Figure 8.1 and will likely increase within the coming years if no corrective and proactive measures are taken by the government to minimise slum population and increase the affordable housing stock. Such an increase indicates inadequacy and maladministration in major, if not all, aspects along the housing

value chain. This is regression in an era where the world average is gradually falling. This requires a paradigm shift in the way Zimbabwe policies manage housing needs for its urban dwellers.



Figure 8.2: Zimbabwe Country Profile (Author's Compilation)

8.3 BACKGROUND OF THE STUDY

The housing situation in Zimbabwe has been deteriorating since independence in 1980, as shown by Figure 8.1. In the year 1990, 4% of Zimbabwean urbanites lived in slums which was acceptable given the worlds average was at 47%. The graph illustrates the number of slum dwellers is worsening, showing an increase to 25% in 2014, whereas the rest of the world is improving to an average of 27%. This entails that for every four urban dwellers, one person lives in poor living conditions/slums and, on the other hand, the aggregate percentage of urban dwellers living in slums has been significantly reducing.

Economic and political mismanagement in urban cities has significantly contributed to the upsurge in slum dwellers. Economic challenges in Zimbabwe span inflation, unstable currency to inconsistent policy changes that reduce investor confidence and, by extension, affecting formal employment. Political challenges are mainly in the form of violence and constant policy changes. These conditions have resulted in Zimbabwe having a peculiar economic and political climate that may not be favourable to conventional housing finance solutions as provided in regular functioning economies. In normal economies, most people access finance for their first homes through bank mortgage financing, building societies and other lending institutions. However, in Zimbabwe, low salaries, informal businesses and high unemployment rates have rendered it impossible for most people to open bank accounts, let alone get mortgages, as financial institutions regard them high risk. With these circumstances, the study will explore strategies used by the urban poor in Zimbabwe to finance their homes.

Low-income housing finance is a widely debated scholarly subject, debated by Warnock, Calza and Ludvigson among many other notable scholars. While many low-income housing solutions have been proffered, socio-economic backgrounds make it difficult for countries like Zimbabwe to find the recommended solutions applicable. There is paucity in nuanced data regarding strategies to overcome low-income housing

provision in a totally volatile environment like Zimbabwe. A specific prescription addressing the present plethora of challenges is desired to help Zimbabweans in achieving sustainable housing. This study stems from an intellectual curiosity to develop a guide that can help in recommending solutions for housing finance in highly volatile environments. The study aims to investigate the structures for provision of safe and affordable housing for the urban poor in Zimbabwe. The research objectives include probing how the government, through its housing policies, has enabled and assisted building societies/banking institutions and non-profit sector to provide funds to address the housing shortages and measure the impact of regulatory bodies and how they shape the housing finance sector; analysing the architecture of housing loans by banks and building societies; exploring changes that have taken place in the housing supply over the 10-year period 2009 to 2019; and investigating the possibility of increasing accessibility of funding for low-to-middle income housing developments sustainably.

Universally, urban centres influence economic growth, and the standard of housing has long-term impact on inclusive growth (World Bank, 2015). For most people, buying or constructing a home is the single and largest expenditure they will ever incur. The home is also typically their most important asset and investment that can appreciate over time, which can be used as collateral for borrowing and is an imperative element of

intergenerational wealth transfer through inheritance (*ibid.*). Owing to the rapid urbanisation, Africa will be a leader in the world's urban population growth in the next decades. Africa is presently the least-urbanised continent, only accounting for 11.3% of the world's urban population, with the Sub-Saharan region being the continents least urbanised. The cities are, however, expanding rapidly and by 2050, the urban population is projected to reach 1.2 billion, with an urbanisation rate of 58% (UN-HABITAT 2014).

With the previously discussed predicted increase in demand for housing, pressure continues to be put on housing delivery systems and, if the status quo does not change, the urban poor will not afford formal housing, specifically if inclusive housing finance solutions are unavailable. This puts the topic of housing finance at the forefront of the global development agenda (World Bank, 2019). Locally, investigations by the Ministry of Local Government, Public Works and National Housing (MoLGPWNH) and National Social Security Authority (NSSA) in May 2019 resulted in an estimate of national housing backlog of 1,4million housing units. Subsequently, this write-up focuses on housing finance as a tool for effective housing supply and demand, its nature in Zimbabwe, as well as alternative solutions to make the dream of sustainable housing come alive. The research is circumscribed to the investigation of housing experiences and housing finance solutions for the low-income urban poor in Zimbabwe. The study focuses on Harare and Bulawayo, the two major cities. These have been chosen for the

research as they are the ones facing major housing supply challenges and have the highest numbers of slum dwellers.

8.4 THEORETICAL FRAMEWORK: HOUSING ECONOMICS AND CHALLENGES

While real estate, in general, may be comparatively easy to theorise, housing faces complexities, it being a basic commodity but unaffordable to most. O'Sullivan and Gibb (2012) define housing as "an inherently complex commodity, with spatial fixity as a defining characteristic, and asset, investment and consumption dimensions to account for". The political economy of housing remains a challenge to those that advocate equity and potency enhancements for society to this current day. Housing contributes as one of the largest investments in an economy, one of the biggest parts of household budgets and key indicators to social welfare (Pischke and Kohn, 2011). Chiquier and Lea (2009) estimates housing to be at least 80% of the wealth amassed by the urban poor during their lifetimes. Housing is often an individual's biggest asset (UN, 2005). The availability, accessibility and adequacy of housing finance is, therefore, key in overall economic advancement as well as for individual household's welfare and its quality of life.

Housing is a multi-dimensional discipline involving various stakeholders and experts, including home-seekers, bankers, investors, mutual fund managers, urban planners, engineers, quantity surveyors, architects, real estate bodies, social strategists, non-governmental organisations, government and policy-makers. These various disciplines interconnect and each influence the final supply and price of housing, hence its difficulty and complexity to create effective demand and responsive supply. Housing shortages is typically common in developing countries, as it is a commodity of supreme need but also expensive.

Nevertheless, the demand will be effective only if the supply side is affordable, and financing is available (Ballesteros, 2002). Demand for 'housing' in the real world necessarily embodies demand for place, for access to public and private services, and reflects the fact that housing is, in part, at least a 'positional good' (Hirsch, 2009). The United Nations (2005) acknowledges that housing plays an important role in a country's economy, accounting for 10 to 20% of total economic activity.

Housing challenges bring along circumstances that make the housing market complex. These include low, unregulated and informal incomes, poorly functioning land markets, weak land regulation, lack of formal property rights, obsolete building bylaws, lack of housing products, limited access to finance and difficulties in obtaining credit for housing finance (Pischke and Kohn, 2011). Most scholars concur that housing demand will always exist, and in developing countries it is growing. The major challenge arises with effective demand, the people being able to afford the houses, which would subsequently make

business sense to developers to develop houses or stands for sale. One can observe that housing solutions require team effort and are not provided in isolation as there are and overspill of obligations by the market, public sector and private stakeholders.

Reviewing Housing Affordability and Affordable Housing

(2009)expresses housing affordability Hawtrey connotation of "housing stress" where when people exceed 30% of their net income in payments towards rentals or mortgages are under 'housing stress'. Hawtrey (ibid.) continues to emphasise housing stress as a financial technicality rather than a psychological state, as it relates to "connectivity between monetary hardship and shelter, from a predominantly budgetary point of view". Housing affordability and the level of housing exclusion are complex phenomena that reflect a myriad of factors influencing housing affordability, i.e. financial perspectives, urban planning and policy; economic performance and government policy (ibid/). It is an economic indicator which, in the demand-supply economic theory, influences demand (effective) aspects which, among other production aspects, influences the price of residential stands and houses.

Housing affordability is a normative economic principle where there is objectivity and desirable outcomes from economic policies, where it would be desirable for all not to be subjected to housing stress. However, low incomes and poor economic performance are Zimbabwe's and, most developing countries, greatest challenges in achieving housing affordability for all. On the other hand, affordable housing is a positive economic principle carrying a "connotation of physical standard." These are technical aspects of housing such as design and building materials which influence the final cost of housing. While housing affordability pertains more to finance, affordable housing is more inclined towards technical aspects of housing which are settlements and structure of the physical dwelling.

Affordable three-dimensional housing is concept, а triangulation that inquires, 'affordable to whom?'; 'on what standard is affordability?' and 'for how long?' (Hawtrey, 2009). The auestions seek to address the socio-economic demographics in a country as a proportion of those able to access secure decent housing. Stone (2006) contends the "affordable" in affordable housing as a deliberate term which is not a physical characteristic of housing in essence but rather a "relationship between housing and people." Affordability in housing is relative, which cannot be expressed in absolute terms, an expression of the social and material experiences of people and households, in relation to their housing situations. Affordability expresses the challenge each household faces in balancing the cost of its actual or potential housing, on the one hand, and its non-housing expenditures, on the other, within the constraints of its income (Stone, 2006). Particularly in developing countries, such circumstances create an excluding

and marginalising land distribution system which, consequently, results in typical urban challenges such as overcrowding, informal structures and substandard housing (Davis, 1997; Datta & Jones, 1999).

Reviewing Housing Finance

Housing finance is what allows for the production and consumption of housing (King, 2009). It refers to funds used in constructing and maintaining the country's housing stock. Housing finance can also be in the form of rentals, mortgage loans and repayments used in meeting contractual obligations in leasehold tenures and servicing mortgages to acquire full freehold rights. To be able to fulfil its purpose, there is need for efficient and sustainable financial systems (Hawtrey, 2009). Housing finance has moved to the top of the international urban policy and research agendas (Datta & Jones, 1999). Housing finance markets are essential organisations in any developed and developing economy. They play a central role in promoting economic development by facilitating the channelling savings into mortgages and investment capital for real estate development (Gerlach and Peng, 2005). Formal finance houses have formally recorded under-performance in terms of delivering financial innovative products and pro-poor policies in both the public and private sectors. Products available tend to exclude informal traders, low-income earners and untitled property. Such home-seekers tend to gravitate towards unsecured short-term finance loans which are regarded as the "unbankable" by Pischke & Kohn (2011).

There is recognition of other common forms of housing finance, apart from residential mortgage finance used by home-seekers such as developer finance, rental finance or microfinance for housing. Developer finance is often financed by the land or real estate developer, coming in the form of unregulated advance payments for land or houses by buyers, and developers sometimes provide long-term finance to buyers through instalments sales when mortgages markets are not accessible as witnessed in the case of Zimbabwe, which has an immature mortgage market. Microfinance for housing is typically used for home improvement or incremental home construction. Loans are typically granted without collateral security (Chiquier and Lea, 2009). Although the overall impact of microfinance in housing remains limited, it can represent an important source of funding for those regarded unbankable.

The house price/income ratio is credited as a proxy for the level of dysfunction in the housing market – a high ratio indicates restrictions to supply, and a low ratio indicates insecurity of tenure or poor-quality accommodation (Datta & Jones, 1999). The ratio also indicates whether better housing finance delivery will improve housing conditions: if the relative cost of housing to income is high, more resources will make little impact upon housing conditions unless institutions are willing to lend many times over conventional income-value ratios (*ibid.*).

Self help Finance Mechanisms

Self-help housing finance literature presents a symbiotic relationship between finance and housing consolidation, where housing consolidation highlights the challenges in finance provision (ibid.). Home-seekers resort to non-institutional forms of finance which are more often community-based with trusted members. Self-help is a means of providing adequate shelter to low-income households relational to the development of and abrogation of state responsibility with capitalism implications for gender relations and household formation (*ibid*/). One of the key observations made of self-help housing is that it allows households to build in stages to 'synchronise investment in buildings and community facilities with the rhythm of social and economic change' (Turner, 1967). Selfhelp, therefore, was regarded as housing that was affordable, relative to the size and stability of existing income over the short term and the household life-cycle. (Datta & Jones, 1999). On the other hand, primary mortgage markets require access to long-term finance. Efforts that could help develop housing finance, include creative housing microfinance, mobile banking and remittance-based products (Pischke and Kohn, 2011).

Informal Finance: Rotating Savings and Credit Associations
Rotating Savings and Credit Associations (ROSCAs) are the
"poor-mans-bank' that operate through informal savings and
loan associations. This is an incremental building process that
allows members to alternate borrowing flexible loans and

revolving loans through an appointed leader. These are common to both developed and developing countries and are known by a variety of names such as *chilimba* in Zambia; *gamaiyah* in Egypt; *susu* in Ghana; *stockvel* in South Africa and *mukando* in Zimbabwe. ROSCAs are widely used in buying furniture and groceries. However, they have been identified by many scholars as having an immense potential to provide for housing finance in low-income urban communities, helping alleviate housing challenges. Their impact is, however, limited due to the number in participants and amounts that can be contributed, most having 12 people or less, that would be rotating receiving loans.

Where ROSCAs hold substantial capital sums (estimates vary up to one-third of all savings) and external support is available from government agencies or NGOs, special investment instruments have been established to raise additional capital on the formal financial markets (Jones and Mitlin, UNCHS, 1991; Datta & Jones, 1999). There is also the possibility of 'loan ratcheting', a promise of larger loans as an incentive to complete initial smaller ones (Merrett and Russell 1994; Datta & Jones, 1999).

Lessons Learnt on Sources of Housing Finance

Households in developing countries face a series of problems in attempting to access finance with which to resolve their housing needs. Despite enormous absolute housing deficits and the need to improve the existing stock, housing finance often represents less than 10% of all financial transactions (Datta & Jones, 1999). To make matters worse, many housing finance institutions post losses amounting to many times the value of their capital reserves, have been prone to invest in highly speculative ventures with consequent boom-bust swings in their portfolio and have a track record of delivering funds only when government subsidies are available and only then to the better-off 10-20% of households (Boleat, 1987). Not surprisingly, most estimates of housing investment, as a proportion of GDP in developing countries, provide figures substantially below those of developed countries (Buckley, 1996).

The bulk infrastructure is normally developed by government ministries, local municipalities and private real estate land developers, these works include road construction, electricity connection, water supply, drainage and sewerage networks. This is shared infrastructure that give amenities to households and raise the price of land. Private infrastructure may be financed by building societies, pension funds, commercial banks, insurance companies, personal savings and loans as well as NGOs such as the World Bank and USAID, UN-Habitat, Shelter Afrique and the African Development Bank may contribute in providing low-income households with long-term loans or grants to make housing affordable. The supply and gap between housing demand and supply investment as a

proportion of GDP in developing countries provide figures substantially below those of developed countries (Buckley, 1996) hence the participation of NGOs to contain prices to affordable levels.

Due to marginalisation by formal finance institutions, low-income groups make use of savings in the acquisition of housing. Low-income households are not too poor to save, but in an unstable environment of land and services, price increases, rising taxes, low and insecure incomes and the rising prices for building materials, it seems unlikely that these low-income earners would amass sufficient savings on a consistent basis to acquire or build housing (Datta & Jones, 1999).

A Synthesis of Housing Finance and Financial Inclusion

While the mortgage market has been growing in many developing countries since the beginning of the 21st century, its reach has been limited in developing countries: at most, a third of households in typical middle-income countries has access to mortgages. This proportion is much lower in low-income countries (Pischke and Kohn, 2011) such as Zimbabwe. While housing microfinance is increasingly being hailed as a vital solution for those whom mortgages are out of reach, its scale remains limited in most places. In practice, poor people finance their houses using mainly savings (*ibid.*).

However, the share of housing investment financed through formal financial intermediaries is very little in all developing countries, and housing finance accounts for a small share of financial assets (Buckely, 1996). Due to the inaccessibility, most households use savings and developers finance which, at most times, has steep and short repayments periods for providing housing solutions for themselves. The degree of access to long-term financing to pay for a house over time is especially important, (Pischke and Kohn, 2011) as it allows households to qualify for higher amounts and, therefore, better housing. Mortgages create a secondary market as it enables acquisition of complete units (*ibid.*) that cannot be accessed through personal savings.

Measure of Mortgage Completeness (MOC)

This measure involves solving the product and channel attributes of a national mortgage market against a hypothetical full list of desired attributes in categories such as risk tolerance; product range, distribution and availability (*ibid.*). The MOC Measure allows government and research bodies to measure the impact financial institutions have on housing acquisition.

Access Frontier Approach

Beck & de la Torre (2006) provide rigorous micro economic foundation to develop an "access possibilities frontier" for

financial services. The current and potential markets are categorised into several zones: current market zone; market development zone; market enablement zone; and supra-market zone (Pischke and Kohn, 2011). It analyses how low-income households can turn potential income into housing. The current market zone refers to houses or residential land currently available on the market and technically how long it would take a home-seeker to find suitable budget-fitting accommodation; the market development zone is the new stock that is currently under production; the market enablement zone refers to the potential stock that can be developed from virgin land. This can be estimated as to what the town planning zones allow. The supra market zone is the secondary market created by sellers of housing.

Reviewing Housing Policy

Housing finance in developing countries as missing, fragmented and unstable where a large paradigm shift would be required to improve housing. Strategic housing and housing finance policies are effective instruments in poverty alleviation. Policy influence, then, must start from an understanding of the institutional, administrative and legal contexts from which policies emerge. Ethical positions on policy issues are acceptable, indeed unavoidable, but should be explicit and honest. Value judgement should not be dressed up as a technical issue and ignorance on empirical matters of importance must be

acknowledged and must constitute the soil to be tilled by the applied researcher. This view of the policy role demands, above all else, honesty and, for this reason, it is brutally demanding in application. (O'Sullivan and Gibb, 2003).

The most frequent rationale for housing finance projects is sectoral policy concerns. These concerns arise because of the inability of most housing production delivery-mechanisms to accommodate the large and growing demand for housing (Buckely, 1996). Several authors agree that weaknesses in the delivery of housing, the lack of affordable land and an inefficient urban administration are as many causes as possible of the poor financial condition of the urban sector (Rakodi 1995, Renaud 1987).

Government's Role in Housing Finance

Governments play a key role in increasing housing stock through direct provision of houses, legislation and land distribution (Rampasard, 2016). They also address legal and structural issues that may influence expansion in the housing finance sector (Pischke and Kohn, 2011) by putting in place policies that support financial institutions and help make business sense. Many governments in developing and transition economies, therefore, face a fourfold challenge in improving the housing finance system. They must facilitate: improvements in institutions and regulatory environments to allow down market

expansion of real estate markets; reforms of subsidised state housing finance institutions as a prerequisite for creating a more competitive and efficient housing finance system; provision of institutional incentives (mostly regulatory but also through subsidies) to strengthen the private housing finance sector and stimulate efficient lending without exposing the state to excessive risk or moral hazard; and reform of household subsidies to improve their targeting to specific household groups and well-defined housing problems. (*ibid.*).

Government can enable the housing sector to function well by focusing on six operational instruments. Three must be to stimulate housing demand that is: developing property rights, developing mortgage finance, rationalising subsidies. The other three are to facilitate housing supply: providing infrastructure for residential land development, regulating land and housing development, and organising the building industry. Finally, one is to create an overall institutional framework for managing the housing sector and ensuring adequate access to housing for the poor (Buckely, 1996). The future development of spatial models of the housing market will need to incorporate adjustment and disequilibrium on both sides of the market, information imperfections, reflect the importance of real time and process in market evolution, and capture the key role of housing market institutions in a way that can be sensibly operationalised. (O'Sullivan and Gibb, 2003).

Comparing Developed, Transitional and Developing Countries

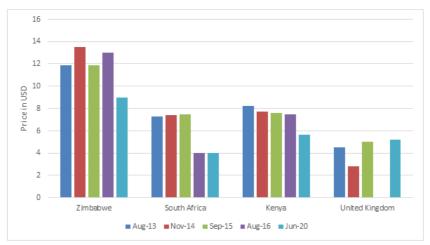


Figure 8.3: Price of bag of cement (CAHF, 2016; www.cashbuildonline.co.za; www.constructionreviewonline.com; www.wickes.co.uk; www.halsteds.co.zw; www.statista.com)

Figure 8.3 shows a comparison of price movements of cement over time from August 2013 to June 2020. From the analysis, though Zimbabwean cement prices seem to be reducing over time, they are still high compared to the other three countries, with the most recent price per bag of US\$9.00 being 125% higher than its regional neighbour, South Africa which has an average cost of US\$4.01 per bag. Cement is a crucial element in construction and its price heavily influences and contributes towards the final costs of housing. Cement-related costs are

mirrored in the construction of foundation or substructure and superstructure, which comprise 16% and 46% of the total building cost, respectively (Foo, 2022), therefore affecting prices of new and upcoming housing stock.

Affordable Housing in United Kingdom

In the year 1800 London had a population of 840 000, occupying 4 000sm²with a population density of 211 persons per hectare; in 2009, it now supported a 10-million population spanning across 1 855km with a population density of 54 persons per hectare (Cox & Pavletich, 2009). This is a population increase of 1 090% over the past two centuries and an improvement in population density which reduced by a significant 290%. UK managed to alleviate housing shortages through council housing which is predominantly the public housing form in UK with local, semi-independent, not-for-profit organisations known as "Registered Social Landlords" (RSLs) social housing grants (Hawtrey, 2009). The programme supports low-income earners through social renting.

Housing policy was first initiated in the UK to 1915, motivated by social and environmental ills brought about by population growth because of migration into central London and industrial towns. During the Victorian era, apart from the traditional 'state and market' players, the voluntary sector also played a major role where investors accepted returns below market rates for housing working-class tenants. These schemes described as 'philanthropy. In subsequent years, the UK financial mortgage was the largest in the European Union (former) in accordance with the European Mortgage Federation (2007), with Scanlon *et al.* (2004) reporting 71% of residential properties being owner-occupied, 20% socially rented from councils and 10% being privately rented. Because UK is a high-income state with a GNI per capita of \$41 730.00 as at 2018 (www.macrotrends.net), there are predominantly more households being able to afford at least a basic starter home with amenities.

Affordable Housing in South Africa

Despite South Africa being one of the largest and growing economies in Africa, it continues to face the highest inequality in income/wealth distribution in the world with a Gini index of 63.0 out of 100 as of 2014 (World Bank. 2014). As early as 1994, before rapid urbanisation became an urban dilemma, South Africa had an estimated housing backlog of three million units. This led to the government establishing the Reconstruction and Development Programme (RDP) which developed housing for households earning less than \$246 per month, an estimated 86% of the population during that time

(Rampasard, 2016). Households meeting the criteria benefited from the programme entirely for free. As of February 2018, the programme had successfully constructed and handed out over three million housing units (Msindo, 2018).

Despite South Africa having proactive housing policies and an excellent banking and credit facility system with an active mortgage market, it still faces a housing backlog of over two million units which is mainly due to the 'low-to-middle' income gap who earn more than what qualifies one for the RDP housing allocation but earn less to for a mortgage; as well as the nature of housing backlog which is a moving target. The South African government has, however, managed to reduce the percentage population of slum dwellers from 46.2% in 1990 to 23% in 2014 (World Bank, 2020). Government subsidy and housing policies in South Africa have resulted in affordable houses. It is regarded as one of the countries with the most affordable housing in Sub Saharan region. An estimated 58% (at the end of 2017) of the residential property market comprising homes valued less than US41 695, with 33% of the total residential market, are suspected to have been subsidised by the government (www.housingfinanceafrica.org).

Affordable Housing in Kenya

Kenya currently faces a housing backlog of 1.85 million affordable units for urban dwellers. Prior 2016, prices of housing in Kenya inclined on the high side where the Centre for Affordable Housing Finance in Africa (CAHF) mentioned that over 99% of Kenyans could not afford. Has Consult reported that, on average, one to three-bedroomed houses recorded an average selling price of Ksh14.1 million (US\$138 820), which is technically beyond what a middle-class Kenyan could afford (Rampsard, 2016). Housing affordability has now been the future of policy planning by the Kenyan Government which has seen more and more developers focusing on affordable housing being undertaken by Urbanis Africa and Karibu Homes-Parktel in partnership with Shelter Afrique strategising in targeting developing affordable housing which led to a downward price of US\$25 000.

In Kenya, the Ministry of Land, Housing and Urban Development and the National Land Commission (NLC) are the two main institutions responsible for land administration. The ministry is part of the executive arm of the national government, while the NLC is an independent body created by the 2010 Constitution. Noting the existence of many land laws, the ministry realised that some of the laws were incompatible

and resulted in a complex land management and administration system, fragmentation and breakdown in land administration, disparities in land ownership and poverty. To address these problems, from 2010, the ministry embarked on the formulation of several land laws in line with the Constitution that had just been promulgated in 2010. The resultant new laws include the National Land Commission Act of 2012, the Land Registration Act of 2012 and the Land Act of 2012. The new laws have repealed the Indian Transfer of Property Act, the Government Lands Act, the Registration of Titles Act, the Land Titles Act, the Registered Land Act, the Wayleaves Act and the Land Acquisition Act. The Land Control Act, the Landlord and Tenant (Hotels, Shops and Catering Establishments) Act, the Sectional Properties Act and the Distress for Rent Act were maintained.

Affordable Housing in Zimbabwe

Zimbabwe exists in regime uncertainty which has heavily affected the economy since the early 2000s. The economic cycles are noticeably short which deters long-term investors from financing housing in the country, as with the nature of mortgages which normally mature in 15 to 20 years. Zimbabwe exists in a five to ten-year cycle which cannot contain 'patient-impact' investors required for housing finance injections. As of 2016, the national housing waiting list was at 1.25 million housing units (Rampasard, 2016). Zimbabwe is currently

bedevilled by a macroeconomic imbalance, one that has seriously affected housing finance. The imbalance has been caused by a range of issues such as hyperinflation, a deep recession, a chronic shortage of energy and a lack of basic goods and services (Mutekede, 2009).

The formation of formal housing for the urban poor in Zimbabwe dates to the pre-independence era where there were separatist policies by the British colonial government, with policies explicated using the Land Apportionment Act No. 30 of 1930 and the Land Tenure Act of 1969. In these policies, Black Africans were taken to temporarily reside in urban areas to provide labour and move back to their permanent residency in Therefore, the type of accommodation to be rural areas. provided for Africans was to suit their migrant nature. The housing provided by the then government was limited to mostly single accommodation hostels in Mbare in Harare and Mpopoma in Bulawayo which was ultimately rental accommodation. Thus, the African majority faced housing seclusion through racial policies and secluded ownership. With time, similar migrant labourer towns were developed in modern day Tafara and Dzivarasekwa in Harare, using the same separatist and secluding policies, though catering for married couples. In the early 1970s, rapid rural-urban migration resulted from the 2nd Chimurenga which led to the creation of shantytowns in the areas of Epworth and Chitungwiza in Harare and Umguza and Tangwena in Bulawayo (Mutekede, 2009).

In the post-independence era, 1980 going forward, the government is said to have been blinded by the liberation movement, resulting in minimal attention towards initiatives to correct existing housing inequalities as well as the then expected growth in urban housing demand. An effort was, however, made to review the existing type and standard of housing compared to the ideal, land tenure systems as well as the available housing finance systems. In 1982, the government introduced policies to redress the disparities in home ownership where local authorities were instructed to convert rented accommodation to home ownership with houses sold to sitting tenants. In the mid-80s, affordable housing was enabled through the central government and funding by the World Bank and USAID which provided a total of 250 000 housing units in the areas of Warren Park, Kuwadzana, Hatcliffe and Budiriro (ibid.).

After the 1980s, donor funds ceased and thus major challenges in providing affordable housing began. According to the 2012 National Census, over 60% of urban dwellers lived in either overcrowded units or slums (ZIMSTAT, 2012). With the lack of government and NGO funds and intervention after the 1980, the challenges in accessing affordable housing worsened as the price of land went up (exorbitant land prices) because private developers must do their own bulk infrastructure, previously the

responsibility of central government and municipalities. This has also led to the rise in land barons who take advantage of landand home seekers, of note being the Chitungwiza and the Southlea Park dispute between residents and businessman Philip Chiyangwa. With short-cycles nature of the Zimbabwean economy, the market needs short-cycle loans of small amounts, short-maturity period, flexible payments and availability of follow-up funds. The formal system may offer money for completed dwellings only when what is needed is money for the initial stages of self-help or improvement of the self-help house once it is constructed (Datta and Jones, 1999).

Banking Sector Activities: Review of Mortgages in Zimbabwe

While rising incomes make improved housing possible, the incidence of substandard accommodation remains significant in Asia and elsewhere. The prevalence of slums, characterised by nondurable construction materials, insecure tenure. overcrowding and the lack of safe water and sanitation, remains high. Over one-third of the urban population in the developing world lives in slums. In Asia, the incidence ranges from 42% of the urban population in South Asia to 37% in East Asia, and 24% West Asia. Asia has a higher share of urban residents living in slums than North Africa, Latin America and the Caribbean, but lower than Sub-Saharan Africa (62%) (Doling et al., 2013).

8.5 RESEARCH APPROACH AND METHODOLOGY

The research was based on triangulation, using logical positivism (quantitative) and phenomenological (qualitative) research techniques. Data was collected using the evaluation research design defined by Walliman & Walliman (2010) as

"a descriptive type of research specifically designed to deal with complex, social issues aiming to go beyond 'just getting facts' but make sense of the myriad human, political, social, cultural and contextual elements involved; with a purpose of examining levels of awareness, cost and benefits, cost-effectiveness, attainment of objectives and quality assurance".

The research will produce solutions that will be implemented to improve and develop the housing status quo through a collective and holistic approach. In this study, the targeted population were those who, at one time, sought to purchase a home for the first time or currently actively seeking to purchase or construct homes for the first time. Participants were reached using online platforms such as Facebook groups and estate agents' databases, where people are actively seeking to acquire homes, and from leaders of targeted institutions. The random sampling technique was used to gather the home-seeking participants, while snowball sampling was used to select participants from institutions that impact home delivery and effective demand. A sample size of 2% was used in collecting the data. The data was collected using primary data sources in

the form of questionnaires and key informants in in-depth interviews.

Table 8.1: Research Matrix

Targeted	Research	Respondents	Sampling	Selection	Target
Respondents	tools	Characterisation		Justification	Data
The urban	Structured	Urban poor	Random	This is the	Housing
poor home-	questionnaires	currently seeking	sampling	population	funds versus
seekers		accommodation		currently	income and
		living in slums or		subjected to	pricing of
		overcrowded		housing	land and
		conditions		stress	construction
Banking	Key informant	Principals of the	Snowball	Issuers of	Qualifying
Institutions	interviews	bodies	sampling	mortgages	and
	(semi-				selection
	structured)				criteria of
					applicants
Government	Key informant	Principals of the		Policy	Programmes
and	interviews	bodies		inclusion	in place to
Municipalities					make
					housing
					affordable
Real Estate	Key informant	Project managers		Housing	Challenges
Developers	interviews	of developments		supply and	faced in
		for low-income		housing	developing
		as the target		affordability	for the
		market			target
					market.

8.6 RESULTS OF THE STUDY

Table 8.2 shows responses from the key informant interviews. There was an overall 87.5% response rate on interviews with a 100% response rate from all corporate organisations and 50%

from government bodies. All targeted bank representatives and developers were interviewed while only 50% of government representatives responded and agreed to an interview.

Table 8.2: Summary of Responses Received (Fieldwork, 2020)

Targeted	Number of	Number of	Response Rate
Population	Interviews Proposed	interviews held	
Three Banking	3	3	100%
institutions			
Three Land	3	3	100%
and Property			
Developers			
Two (local)	2	1	50%
Government			
Bodies			

Land accessibility

Due to the unavailability of mortgages and the costs of funding the purchase of houses, most Zimbabweans have resorted to buying vacant residential stands and develop their homes themselves. This is the cheaper option accessible by most home-seekers. This has led to developers and local authorities focusing mainly on providing stands only, with no developments. This way, home-seekers can spread payments over long periods of time and stretch what they can afford. Though this faces cases of double home payments of rent and construction costs, it is the option available to most. In some instances, home-seekers opt to construct a temporary structure

to live in while they raise funds to construct as shown in the Figure 8.4.



Figure 8. 4: Temporary Housing Structure (Dura World Zimbabwe)

Due to the high residential stands demand in big cities, such as Harare and Bulawayo, the industry has attracted white collar crime with majority of the respondents acknowledging the challenges of accessing genuine registered and titled land for sale. Registered and titled land is comparatively expensive while land with developer and local government cessions is cheaper but tends to be very risky with home-seekers risking losing their money during transactions through double sales or sale scams where 'sellers' forge cession documents and pose as the actual owners to unsuspecting home-seekers. This had led to many home-seekers losing their savings and further aggravating the

challenges in housing supply and finance in Zimbabwe. The form of land and property ownership in Zimbabwe is mainly in the form of title deeds, cession agreement and, on rare occasions, 99-year leases.

Key Takings from the Banks

Banks play a crucial role in financing the built environment. Most banks in Zimbabwe currently do not have any products specifically formulated to serve the urban poor, with 100% of all interviewed banks confirming this. Though some banks are willing to give mortgages in the ever-inconsistent local currency in the local currency (ZWL), the challenge is that the market is not willing to accept purchase of property in ZWL. Most properties are being sold in foreign currency, mainly the US dollar, which is not accessible to the ordinary citizenry, let alone the urban poor.

Banks are faced with challenges of formulating products in such a high-cost environment with low income as discussed in the literature review section. The CABS Project issue that developed 2-roomed core houses in Budiriro in Harare, faced similar challenges whereby the target market of the low-income group did not qualify for the mortgages and the middle-income group was not interested in the product. The project found itself having a terribly slow uptake and, therefore, forcing project managers to review down prices at some point. Even if the low-income group hand shown interest, they could not qualify, or

they would be forced to come up with extremely high deposits to be able to make acceptable payment plans towards the repayments of the properties. Zimbabwean incomes are generally not matched with the indexed costs of developments, hence the product being unaffordable to most.

Mortgages are offered starting from mainly middle-income groups earning US\$800 and above. This is regarded as sustainable and low risk for the bank. However, the reality on the ground is that the numbers who earn that is small. Basic professionals and technicians like nurses, doctors and teachers struggle to afford that in Zimbabwe. The inconsistent prices and changes continue to affect the process of making long-term decisions like mortgages. Banks have also suffered huge losses before in the past as illustrated by Table 8.3, where at one point or the other mortgage debts have been erased, devalued, and lost value due to hyperinflation. The urban poor also face challenges of accessing banking facilities as they are unable to meet the basic requirements to open bank accounts. Lowincome groups are excluded as they cannot demonstrate their capacity to repay as most are informally employed or run unregistered small businesses such as street vending and touting. The traditional mortgage structures technically exclude such groups, in addition to lack of affordability.

Banks are now considering customers already with access to land and they extend loan-to-build mortgage loans. There is also exclusion of those who cannot afford land with title deeds which many at times is more expensive than that with cession. The loans are limited only to the value of the land, which may not be enough to complete construction. Furthermore, banks face challenges with inconsistent policy changes which affect currency and consequently the mortgage value. Table 8.3 shows the different directives and their impact to the mortgage market. This has made the mortgage market unfeasible in Zimbabwe as they are long-term business decisions.

Table 8.3: Statutory Changes affecting Mortgages in Zimbabwe

Date of declaration	Document	Summary of SI	Impact on the mortgage market
24 July 2020	SI 185 of 2020	Allowing dual pricing and displaying, quoting and offering of prices for goods and services in both ZWL and US\$ for domestic transactions	Re-introducing US\$-based mortgages for the diaspora community
23 March 2020	SI 96 of 2020 and SI 97 of 2020	Rentals and mortgage payments deferred for three months due to COVID-19 pandemic	Deferring mortgages repayments further affecting the ability of banks and other lending institutions to give more loans as currency continues to lose value

29 March 2020	SI 85 of 2020	Amendment of exclusive use of Zimbabwe Dollar for domestic transactions allowing payment for good/services charged in Zimbabwe Dollar in foreign currency	Restricting banks and other lenders from crafting US\$ based loans
27 September 2019	SI 212 of 2019	Exclusive use of Zimbabwean Dollar for all local transactions	All mortgages previously paying US\$ Installments now paying ZWL RTGS which as at 25/08/2020 has lost more than 8 000% in value
13 February 2009	Constitution of Zimbabwe – Amendment Number 19	Dollarisation Adoption of multicurrency (mainly US\$) regime and abandonment of Zimbabwean Dollar	Adoption of multicurrency making all ZWL mortgages revalued to values less than US\$10 making mortgagees get properties for almost nothing
31 August 2008	SI 109 of 2008	Currency revaluation and issue of new currency. Slashing the 10 'zeros' from the old currency	Affected the value of mortgages

Experiences of Land and Property Developers

Land developers mainly face the dilemma of product price versus the targeted market, since Zimbabwe is mainly a lowincome state but with high living costs. The developers who previously developed two to four-roomed core houses faced difficulties in off-loading their stocks due to the pricing mismatch. While the demand for housing is naturally high, it is ineffective due to the unaffordability and lack of funding predominantly in the market. The product targeted the lowincome socio-economic group, but the prices could only be afforded by the middle-income group. The CABS project sold their newly developed four-roomed core houses at US\$31 262.75 with a 90% mortgage facility. The criteria required an applicant to be earning a gross monthly salary of US\$1 050 which is the middle-income range, according to Zimbabwean standards. The pricing excluded a larger group of potential applicants. In neighbouring countries such as South Africa, this could have been affordable for civil servants such as teachers and nurses. At the time of this research, civil servants in Zimbabwe earned a gross income equivalent to US\$70 which automatically disqualifies them.

Land developers have also been affected by inconsistent policies, hyperinflation and currency changes that have affected

their returns on long-term investments. This has resulted in developers shying away from products that require mortgage facilities. All (100%) of the interviewed land development companies have adopted US\$-based and inflation-adjusted contracts to mitigate the effects of hyperinflation and currency changes. Generally, all developers asserted developments of residential stands having a greater uptake as pricing can be controlled and is affordable to most. With such strategy, developer finance is used and payments are spread over a period, in most cases not exceeding 36 months.

Land developers have managed to offer residential stands at low cost by forming joint ventures with city councils, for instance, Old Mutual Properties which partnered with Bulawayo City Council to develop Phumula South residential stands. This has resulted in the production of an additional 213 residential stands, reducing the housing waiting list, with the lowest 200m² being priced at \$4 500 requiring a deposit of 25%, and the balance paid over 18 months. The scheme received better uptake, especially with the low-income target market consisting of vendors, unregistered small-medium enterprises, which is normally un-bankable and therefore making it difficult to craft products for them as they do not qualify for mortgages.

The Zimbabwean Building By-laws were last reviewed in 1979, therefore they do not cater for new technology in construction that offers cheaper methods and diverse materials that can be adopted to help reduce costs of construction. Reviewing and revising the model building by-laws will give the community a variety of options that can ultimately increase chances for people to own houses. When compared with South Africa and Botswana, there is a high mismatch regional of housing construction costs. In Botswana, average construction costs per square metre range from US\$335 to US\$650 as reported by the Institute of Botswana Quantity Surveyors and South Africa ranging from US\$225 to US\$500 according to the South African Association of Quantity Surveyors while in Zimbabwe they range between US\$450 to \$800 per square metre, according to TN Zunzanyika Quantity Surveyors (2019), making Zimbabwe highest in the region. This is due to high built-up costs caused by lack of local industry as most construction products must be imported. Additionally, Zimbabwe suffers from high customs duty tariffs, whose tariffs are generally 300% higher compared with neighbouring countries such as South Africa and Botswana.

Experience Postured by Local Government

The only interviewed local authority attested that the council maintains a local housing waiting list for aspiring first time

homeowners. All citizens of the city or town can register their interests without prejudice of incomes. No assisted direct financial products are given by the council but, rather, they go into joint ventures with land developers by offering land at extremely prices below market value so that residential stands can be developed and sold at low prices. The respondent highlighted that "since Zimbabwe is generally a low-income state with currently more than 85% of the citizens earning below the poverty datum line, there has been no specific requirements for any socio-economic group but, rather, the only qualifying means was that one should not own a house prior to benefiting from these programmes.

The local government depends mainly on the central government for policy changes and wide impact developments and in the last two decades, there has been no new policy formulations to assist housing for the urban poor, hence there has been no significant changes on the housing waiting list. The respondent from the Bulawayo City Council reported that the housing waiting list for the city has increased ten-fold in the last two and half decades and continues to grow if no major action is taken to increase new affordable housing stock. Apart from funding, the urban poor are reported to also face information barriers on new developments and insufficient documentation

during the application process, automatically disqualifying them. The barrier was linked to low levels of education by the respondent.

In summary, lack of funding was the major factor barricading the urban poor to adequate housing as there are no government subsidies to ease the financial pressure on this economic group. Developers are ready to increase the housing stock but face an uptake challenge as prices of land are difficult to match the current incomes of people. The Zimbabwean housing crisis is exacerbated by the unstable political and economic environment and, for meaningful change to take place, these two underlying factors should be resolved first.

8.7 SUMMARY AND RECOMMENDATIONS DRAWN FROM THE STUDY

The major challenge in the housing market is the ability by developers to craft price appropriate products for the low-income earners, hyperinflation and inconsistent currencies, outdated model building by laws, unsupportive housing policies. Table 8.4 shows the status quo and suggested measures that can be taken to mitigate adverse effects and help improve housing demand and supply in Zimbabwe.

Table 8.4: Synthesis of findings and recommendations.

Stakeholder	Current Status	Recommendations
Central	The building by-laws were	The government should
government	last reviewed in 1979 thereby	update all policies that affect
	rendering them obsolete in	the housing value chain to
	today's environment and	ensure Zimbabwe is in tandem
	technology.	with the international
		community and recent
	The value chain of housing is	technologies in the built
	formed by policies instituted	environment
	by the government, the main	
	elements of an effective value	
	chain being, but not limited	
	to:	
	 Titles and tenures 	
	2. House construction	
	3. Land Assembly	
	4. Bulk infrastructure	
	Finance and housing	
	finance	
	6. Sale and transfer	
	7. Social and economic	
	8. Land management.	
	These elements should	
	continuously be reviewed to	
	mirror society and	
	environment. There are 18	
	policies that govern the	
	housing value chain in	
	Zimbabwe with the most	
	recent being drafted in 1992	
	(CAHF, 2016; 2019) This	
	reflects a gap in	
	technological, societal and	
	environmental changes.	

	As reported in the research results, there are no subsidies provided by the government to help housing for the poor.	The government should initiate programmes that assist the urban poor and the un-bankable group of society as a means of easing the pressures and stress that come with seeking housing
Land and property developers	The bulk infrastructure is currently being constructed and financed by private developers using private funds and the costs are passed on to the buyer	Ideally, bulk infrastructure should be constructed by the local government using borrowed funds or investor funds from municipal bonds, and costs are recovered from buyers over long periods of time through property rates and taxes. This will drastically reduce the price of land and make it affordable for many. Private developers should
		lobby for the responsible council to provide finance for bulk infrastructure
Banks	Mortgages from banks and other formal financial institutions are only accessible to the top 15% of the income distribution. Banks finance only the purchase of titled houses and land. Housing affordability for households in the lower 50% of the income distribution is a challenge. These households cannot afford a modern, completed house, what is regarded the cheapest, and hence are restricted to	Offer micro-finance and home improvement staged salary-based loans to those who are too poor to get a mortgage

	informal or semi-formal, incremental housing	
	The constant currency and policy changes environment in Zimbabwe have made mortgages very difficult to price and risky to the mortgagee	Rent to buy (Build operate transfer) low cost houses targeted for the low income through Public Private Partnerships with property developers and banks. These will protect the bank from currency changes and as rentals will be charged based on market rates
Households	20% of adults in Zimbabwe do not earn an income, while another third earns less than US\$50 a month. Nearly half of urban households (49%) have one income earner and in 28% of households, there are two income earners, while in 15% there are three or more income earners. Approximately 8% of urban households and 13% of rural households have no income earners (ZIMSTAT, 2017)	Households could adopt alternative society-based finance schemes such as ROSCAs and ISLES (Internal Saving and Lending Schemes). These schemes encourage savings at community level and if applied earnestly, could be used to finance housing incrementally, one household at a time

Synthesis of Research Objectives and Outcome

Table 8. 5: Research objectives and outcomes from the study

	Research Objective	Outcome from the study
1	To probe how the government, through its housing policies, has enabled and assisted building societies/banking institutions and non-profit sector to provide funds to address the housing shortages and measure the impact of regulatory bodies and how they shape the housing finance sector	There is currently no reported direct or indirect assistance by the government in the form of subsidy or policy enactments to assist homeseekers, banking institutions and the non-governmental sector alleviating challenges in home ownership.
2	To analyse the architecture of housing loans by banks and building societies	Financial institutions in Zimbabwe have barriers that exclude the urban poor from accessing banking and subsequently mortgage loan facilities as they cannot meet the know your customer (KYC) requirements and unable to afford available bank products.
3	To explore changes that have taken place in the housing supply over the 10-year period 2009 to 2019.	Housing affordability has been severely affected by currency changes that have left most of Zimbabweans earning below the poverty datum line, hence the increase in urban slum dwellers from 24.1% in 2009 to approximately 28% in 2019 as reported by the World Bank (2020).
4	To investigate the possibility of increasing accessibility of funding for low-income housing developments sustainably.	There is need for government involvement at all stages in the value chain to fund bulk infrastructure as well as enacting policies that support housing provision to the urban poor as seen being experienced in South Africa.

8.8 CONCLUSION

While Zimbabwe has appropriately functioning land markets and strong formal property rights, it suffers from low, unregulated and informal incomes, weak land regulation, obsolete building by-laws, lack of housing products, limited access to finance and difficulties in obtaining credit for housing finance, thereby negatively affecting the provision of adequate housing to all. Moreover, the Zimbabwean government needs to take up the housing provision to be one of its major urban value drivers and influence the private sector and households into behaviour that does not result in increase of slum dwellers as presently experienced. The value chain of housing could be a starting point to rewrite policies and acts that reflect current social ills and challenges. Such policies and acts will help in ensuring inclusive solutions for all. Furthermore, households, particularly the urban poor need to engage in self-help community-based programmes such as ROSCAs and ISLES that will help in housing provision together with developer finance and microfinance. Such measures will incrementally assist households in owning their own homes someday.

Chapter9: Implications of the Human Factor Approach Pertaining to Fire Safety Management in Public Leaning Institutions: Case of the University of Zimbabwe

TAPERA S. MAKAZA

9.1 CHAPTER SUMMARY

The aim of this study is to assess the level of inclusion of the Human Factor (HF) approach in fire safety management (FSM) system at the University of Zimbabwe (UZ). The HF approach is the basis of substantial outcomes achievement in terms of human-centred development and evasion from hazardous risk events in any society. Likewise, in any property type (commercial, residential, industrial or institutional), the efficacy and efficiency of FSM is determined by the level of incorporation of HF competences which include readiness, preparedness, ability, awareness and capacity to deal with fire issues without any probing. The occurrence of fire incidents in public learning institutions is exceptional, but in case of its emergency, it results in catastrophic destructions of both occupants and valuables. Regardless of the existence of modern and advanced fire safety equipment in public learning institutions fire hazards are recorded and continue to be a potential hazard mainly due to the failure to adopt the HF approach by the responsible team

to ensure that occupants have the technical expertise on how to operate the equipment. In a bid to achieve the aim of the study, the triangulation research approach was utilised through integration of primary and secondary (documentary review) research methods. To obtain primary data, 50 questionnaires were administered to both students and staff, interviews were conducted with the fire safety department and department heads, as well as observation by the researcher. The outcomes of the study reflected that the level of the HF concept inclusion in FSM at UZ is at the infancy stage. Thus, to ensure that institutional building occupants are free from fire risk, the study suggests the fire safety management team to provide skills through training and educating building occupants towards the use of fire safety equipment.

9.2 Introduction

From the industrial revolution era, fire has been regarded as an essential human need that people cannot live without (Pauly, 1984; Pires, 2004; Rahim, Taib and Mydin, 2014). However, if it is uncontrollable, it can be dangerous. Building fire is a potential hazard in each building category (residential, commercial, industrial and institutional). Sabramaniam (2004) and Kobes, Helsloot, De Vries and Post (2010) suggest that fires cause serious or fatal injuries to building occupants and inflict direct material damage to buildings and valuables, and at the same time, cause indirect consequential losses such as loss of production and employment.

Unlike industrial properties, education institutional buildings are perceived as low fire risk due to their designation of purpose which refers to the intended use as may be stipulated in the building by-laws (Walton, Carpenter and Wood, 2016). The possibility of fire occurrence in such buildings tends to be low but in case of its emergency, the gravity tends to be high which can result in mass destruction. Generally, such buildings have advanced fire safety systems installed, but incidences of fire become the greatest threat to health and safety of occupants because of scant knowledge towards fire safety (Mydin, Sani, Abas and Khaw, 2014). In support of the idea, Proulx and Richardson (2002) state that there is inadequate recognition of the importance of the behaviour and reactions of building occupants in relation to their knowledge of fire safety hence exposes them as potential victims. Thus, the purpose of this study is to assess the relationship between the HF approach and FSM system at the UZ. The university staff (teaching and ancillary) and students were the target respondents in this study.

9.3 BACKGROUND TO THE STUDY

Building premises are enclosed by a large body of legislation designed primarily to protect the rights, health and safety of occupants (Atkins and Brooks, 2009). The major reason is that it is morally unethical for the occupants to be exposed to unnecessary and avoidable risks. By their nature, building operations are dynamic, highly capricious and complex. They

are prone to various types of risks which can be viewed as wickedness that can be avoided. Of the risks associated with building operations, fire is regarded as the most harmful, though it rarely occurs. Every building is at risk of fire and complete safety is not possible, hence the call for an establishment of fire precautions within buildings (Stollard and Abrahams, 2002). The materialisation of fire safety in buildings came after a prominent number of fire cases like the Great Chicago Fire (October 8, 1871); the Great Boston Fire (November 9, 1872) and Our Lady of the Angels School Fire (December 1, 1958), among others (Pauly, 1984), caused loss of hundreds of lives and mass destruction of property worth millions of dollars.

As opined by Pires (2005), Furness and Muckett (2007) and Kobes *et al.* (2010), each year a notable number of building damages, loss of property and lives due to fire hazards are recorded across the globe. Most of these fires are less preventable especially in the case of lack of attention towards fire safety by building occupants, hence exposing them as potential victims (Kobes *et al.*, 2010). In all property categories (residential, commercial, industrial and institutional), fire hazards arise unexpectedly but the efficacy towards its management is usually centred on the HF concept. Therefore, is an understanding of the HF concept which may enable the organisations to manage the effects that humans have upon risks control systems. The safety of occupants depends largely

on their skills, capacity and ability to use the building or work 'safely', based on risk awareness, knowledge and experience (Furness and Muckett, 2007). The major question is, does lack of technical knowhow by occupants on the use of fire equipment make them potential victims of fire hazards?

Existing literature on health and safety in facilities management for example (Meacham, 1999; Sabramaniam, 2004; Kobes et al., 2010), generally, seems to suggest that the occurrence of fire in public learning institutions is minimal. But, when occurs, it results in destructive consequences for both occupants and valuables (Pires, 2005). Despite advanced fire safety systems being installed in buildings, incidences of fire are regarded as the greatest threat to safety and health as well as property in any society (Rahim, et al., 2014). Fire disasters still occur in public learning institutional buildings regardless of the presence fire-fighting equipment. Nevertheless, lack development aggravates damage and rate of fatality during fire events. It is still recognised that many basic HF principles, guidance, elements and techniques are not incorporated into safety system design and management of various premises. This study seeks to explore the level at which the HF concept is incorporated in managing fire safety issues as well as the effectiveness and efficiency of the FSM at the UZ. Unless a vigorous system which includes full orientation and training of all staff and students as well as regular checks and servicing of

fire safety equipment is done properly in relation to fire safety standards, building occupants will always be at risk.

The chapter assess the level of inclusion of the human factor approach in fire safety management system at the UZ. The study objectives include assessing the level of availability and the condition of existing fire safety systems in university buildings; to evaluating the level and degree of unification of human factor approach in university's fire safety management; assessing stakeholders' perceptions on the operations of the institutional fire safety team; identifying and explaining the challenges faced in adopting the human factor approach in fire safety systems at the institution and suggesting possible alternatives for the enhancement of the human factor concept in fire safety management at the UZ. The International Standard Organisation's Occupational Safety and Health (OHSA: 18001) in Kobes et al. (2010) states that awareness of the fire bv building occupants is desirable as appreciation may lead to grave results in an emergency. Therefore, there is need for effective methods to improve awareness and efficacy of fire safety levels, for instance, through participation in related fire safety programmes, distribution of pamphlets or brochures on fire safety and appointing specific personnel to an emergency response team in buildings (Meacham, 1999; Rahim, et al., 2014). The adoption of these strategies may boost positive safety culture within

organisations, hence reduction of wastages and costs and improving productivity and social wellbeing.

The motivation of this research is based on the paucity of reported data on the level of HF concept fusion in buildings' fire safety. There is scant literature on the level of fire safety knowledge of the building users (staff and students) and the effectiveness of the FSM in Zimbabwean public learning institutions. Therefore, this study seeks to show how the HF concept explains and influences the effectiveness of fire safety management system at the UZ. The findings might act as a reminder that can enlighten the university technical staff to ensure that occupants of various buildings are aware of firefighting procedures and systems in case of a fire outbreak. Furthermore, it will aid managers of non-institutional properties (commercial, residential and industrial) to make sure that their tenants are aware of the fire risk to minimise impact. This will also act as an informer to government authorities on the public learning institutions' levels of compliance to fire safety regulations and then mapping ways to enforce them.

The University of Zimbabwe is the oldest and one of the largest of 12 Zimbabwean universities. Infrastructure wise, the university has many buildings which include administration and office blocks, hostels, dining halls, lecture theatres, staff quarters, libraries and workshops. It has a population of more than 17 000 including both students and staff (ancillary and

teaching) and these are the main occupants of university buildings.

9.4 LITERATURE REVIEW AND THEORETICAL UNDERPINNINGS

Fire risk refers to the likelihood of a fire occurring in a building multiplied by its severity, that is, the 'harm potential' and consequences in terms of loss of lives, fire spread and damage of property (Pires, 2005). Fire Safety Management is described as an avenue of preventing outbreaks of fire and mitigating the direct consequential damages by early detection, reducing spread by structural containment, providing escape routes, emergency evacuation procedures and means for fighting (Sabramaniam, 2004). Human Factor was defined (1995) Adjibolosoo as the spectrum of personality characteristics and other dimensions of human performance that enable social, economic and political institutions to function and remain functional over time. It also refers to the person's awareness, ability and capacity to deal with a task without any probing and he/she knows what to do, when to do it, why it is done as well as the likely consequences of doing or not doing the task (Mararike, 2014).

Occupational Safety and Health is described by Furness and Muckett (2007) as factors and conditions that can affect the well-being of persons within the workplace, i.e. employees, contractors, temporary workers and visitors. It involves the science of the anticipation, recognition, evaluation and control

of hazards arising in or from the workplace that could impair the health and well-being of workers, taking into account the possible impact on surrounding communities and the general environment (Ridley and Channing, 2008) and, finally a public learning institution, also known as an educational institution, is a place where people gain an education, including preschools, childcare, primary-elementary schools, secondary-high schools, and universities. They provide a variety of learning environments and learning spaces (Davidson and Goldberg, 2009).

Conceptual Framework

Generally, the major aim of fire safety is to: reduce fire outbreaks; provide sufficient fire-fighting facilities and escape of building users; reduce fire spread in buildings and to their neighbouring buildings; and reduce property damages (McFadden, 1989, Stollard and Abrahams, 1999; Furness and Mucket, 2007). Further, Stollard and Abrahams (1999) argue that fire prevention is intended to reduce sources of ignition and is associated mostly with equipping the building occupants with education on how to minimise fire causation. The effectiveness and efficiency of fire safety in buildings are recognised as reliant attributes of the HF approach. That is, the availability of firefighting facilities, fire protection and/or prevention measures adopted by various stakeholders as well as awareness, capacity, ability and technical knowhow on the utilisation of fire safety systems by the occupants, determine the effectiveness of fire safety management. Changes in these autonomous variables, impinge on the level of fire safety within a building (Drysale, 2003).

According to Subramaniam (2004), there are several variables that affect occupants' fire safety behaviour and lifestyle which include predisposing factors, reinforcing factors and enabling factors as portrayed in Figure 9.1 and these need to be well coordinated in order to have adequate fire safety. The predisposing factors constitute individual characteristics such as knowledge, beliefs, attitudes and perceptions that impinge on safety behaviour motivation of individuals, whilst reinforcing factors include feedback, societal influences, repercussion and societal opportunities for a specific behaviour (*ibid.*). He further states that enabling factors, like availability of fire safety resources, access, policies, as well as skills in fire-fighting influence motivation towards human behaviour on fire safety.

However, it has been noted that, though legislation encourage building occupants to be well versed in building fire safety operating systems, management of several public institutional buildings take this for granted, hence leaving occupants exposed to potential fire risks (McFadden, 1989; Drysale, 2003). Thus, for public institutions to achieve the goal of fire safety as reflected in Figure 9.1, they must constitute HF competences which aid the occupants to react and act positively in case of fire emergencies without any probing because failure

to contain fire and escape from affected areas might result in loss of lives and valuable properties.

Basically, in a bid to ensure efficient and effective FSM in any building type, it is important to understand the fire science in buildings that gives an insight into the chemistry of fire (mechanism of ignition and fire growth); classification and causes of fire; as well as typologies of fire spread (Furness and Mucket, 2007). According to Drysdale (2003), the key features of fire are common, even if they emanate from different causes.

Fire is a result of a series of very rapid chemical reactions between fuel and oxygen (combustion) and application of sufficient heat to originate ignition (Stollard and Abrahams, 1999; Furness and Mucket, 2007). According to Stollard and Abrahams (1999), for combustion to occur, adequate sources of oxygen, heat and fuel shown on the fire triangle must all be in existence and the removal of any one of the three (heat, fuel or oxygen) will stop the reaction. A "fire triangle" refers to a pictorial illustration of the three determinants for a fire to start and once started, to continue to burn (Todd, 2008). Basically, all materials have ability to burn provided they get ample heat to cause molecules to break down and give off vapour which ignites. As the material that is involved with the combustion or fire decomposes, the material that is left has less ability to react, ultimately causing the fire to die down or decompose on a process called pyrolysis (Sabramaniam, 2004).

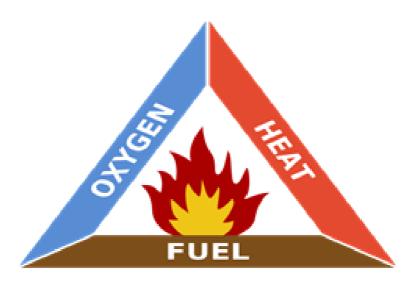


Figure 9.1: Fire Triangle (Furness and Mucket, 2007, p. 117)

It is crucial to have an understanding on how fires occur within different spaces (open and enclosed) as well as stages in development, particularly of an enclosed fire (Stollard and Abrahams, 1999). Having that understanding helps building occupants to know if they can control the fire on their own or call the Fire Brigade. Figure 9.2 shows fire growth or combustion process which has four main phases. The commencement phase is the induction or incipient stage which arises when constituent parts of the triangle consolidate and instigate reactions. It is then followed by the growth stage where if there is a continuous supply of oxygen or fuel, the reactions become rapid and grow in concentration, while producing huge volumes of smoke (unburnt products of

pyrolysis). Furness and Mucket (2007) opine that the time taken in the growth of fire may be from a few minutes to several hours, dependent on prevailing conditions (size of the room, the surface linings, the availability of oxygen and a variety of complex chemical reactions). It is at that stage of growth that the "flashover point" is experienced, noted as the point at which the fire involves all the combustible materials within the room or area and that transition usually represents the start of the stable phase of the fire (*ibid.*).

Nevertheless, Stollard and Abrahams (1999) state that if there is inadequate ventilation during the growth phase, the fire will not reach the flashover point due to oxygen starvation, hence it may decompose or continue to smoulder (only occur in porous materials such as paper, cardboard, sawdust, fibreboard). Smouldering fire, as suggested by Mydin *et al.* (2014), can be extremely dangerous as enclosures fill with flammable vapours which, when getting a new a supply of oxygen (for example, by a door being opened) especially when fire fighters trying to rescue victims, may ignite with an eruption of flame. High or wide compartments , have functional sprinklers and limited materials to burn; the smoke is unlikely to reach temperatures that might result in flashover (Karlsson and Quintiere, 1999).

The third phase is the "fully developed" stage, which is characterised by reactions that are not as rapid as in the growth stage but the fire persists to burn the available oxygen supply and fuel sources. Stollard and Abrahams (1999) opine that this "fully developed stage" is characterised by massive flames and very high temperatures (in excess of 300°C), usually controlled by the amount of oxygen supplied rather than the fuel. The final phase is the decay stage, where after having consumed all the available fuel, the fire dies down and is eventually extinguished. It can be as a direct result of fire service intervention or can occur naturally when there is no further oxygen or fuel to support the combustion process (Stollard and Abrahams, 1999; Della-Giustina, 2014).

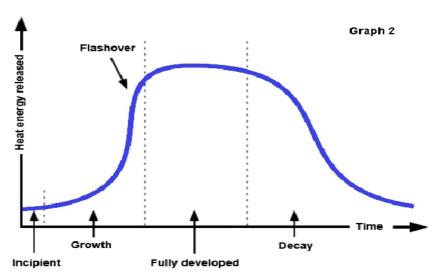


Figure 9.2: Fire development process (Furness and Mucket, 2007:117)

To classify fire, it is essential to understand the sources of fuel. Having an understanding of the fire typologies helps the occupants when it comes to firefighting to use the appropriate extinguishing equipment that include: dry chemical; carbon dioxide; wet chemical, dry powder; pressurised water/foam and halon extinguishers. Fire, according to Della-Giustina (2014), is generally broken down into the following main groups:

CLASS "A" – These are fires fuelled by solid materials or carbonaceous (carbon-based) which include wood, cardboard, paper, hardboard, soft furnishings such as carpets and curtains and materials such as plastics, foam rubber and even metal. These materials usually turn into ashes after burning and can be best extinguished by removing the heat aspect of the triangle. Extinguishers suitable for such typical fires must be water or foam extinguishers usually labelled with letter "A".

CLASS "B" – These are fires fuelled by flammable liquids that release vapour and these include petrol, paraffin, white spirit, thinners, varnish and paints. The best way to extinguish them is by blanketing or smothering. Suitable extinguishers are identified by a square containing the letter "B", or must be red in colour. Water must not be used.

CLASS "C" – Common throughout workplaces, flammable gasses which include natural gas and liquefied petroleum gas (LPG) (butane and propane) stored in pressurised cylinders for cooking, heating, plumbers' torches, fuel these fires. Blanketing or smothering extinguish fires in this category, and the

extinguisher suitable should be dry chemical or carbon dioxide, identified by a circle containing the letter "C".

CLASS "D" – These are fires involving combustible metals such as magnesium, titanium, zirconium, sodium, lithium and potassium. Dry powder is usually used as an extinguishing agent and the suitable extinguisher should be identified by a star containing the letter "D".

CLASS "F or K" – This refers to fires that involve cooking mediums such as vegetable or animal oil and fats in cooking appliances, Such fires are particularly difficult to extinguish as they retain considerable heat allowing the chemical reaction to restart. Wet chemical is regarded as the most appropriate extinguishing agent and the extinguisher should be identified with the letter "F" or "K"

Fire Safety Management

Basically, from the field of property investment, facilities management deals with a lot of issues, including lease agreements, janitorial services, maintenance services, finance management, risk management as well as health and safety management (Atkins and Brooks, 2009). These aspects are of essence towards effective operations of any type of property. Health and safety of building users are very important so much that governments, through various regulatory authorities and statutory instruments, that issue to ensure that the welfare of

occupants is not undermined (Stollard and Abrahams, 1999). Among the facets that health and safety management deals with, FSM is of paramount importance. If tenants recognise that the building is not complying with fire safety standards as may be stipulated by by-laws, they may terminate their lease contracts and vacate the premises, which may lead to loss of market share (Vanier, 2001; Furness and Mucket, 2007).

Similarly, in the context of public learning institutional properties, if it is discovered that the institutional FSM policies are not in compliance with the set standards, there is a possibility of high turnover of both student and staff at such institutions (Sabramaniam, 2004). In support of the notion, Kobes *et al.* (2010) assert that an institution characterised by premises with inadequate and malfunctioning fire safety systems as well as occupants with limited knowledge of firefighting is at great risk of fire. That is, in case of a fire outbreak, entire buildings and valuables might be ravaged and occupants fatally affected. This means that fire safety is very important because the occurrence of fire is unpredictable, and the management team must always be alert; provide adequate fire-fighting and service equipment and educate occupants on the use of equipment.

To tackle FSM from another angle, Sabramaniam (2004) and Mydin *et al.*, (2014) suggest that the effectiveness and efficiency of FSM in institutional buildings are centred on the

capability of being acquainted with HF development which is centred on human behaviour and knowledge about fire issues. Nonetheless, as opined by Proulx and Richardson (2002), there is inadequate recognition on the importance of the behaviour and reactions of the human occupants in relation to knowledge about fire safety in public learning institutions. Therefore, it means that the fire safety team has an obligation of providing adequate knowledge to occupants of the fire safety issues (firefighting and evacuation), such that they can help themselves in fire emergency (Mydin *et al.*, 2014). Thus, the HF approach (Adjibolosoo, 1995; Mararike, 2014) is not something that can be disregarded in the design and evaluation of fire management systems.

The Human Factor Concept

The main proponent of the HF Approach is Senyo Adjibolosoo, a Ghanaian scholar who is also a founder and Director of the International Institute for Human Factor Development (IIHFD) (Mararike, 2014). From the socio-economic development perspective as pointed out by Adjibolosoo (2000), a lot of relief programmes in the form of food aid, clothing, pharmaceutical drugs and evacuation aid from hazardous risk areas are being done in Third World nations in a bid to improve living standards, but these activities do not seem to achieve substantial outcomes in terms of desired sustained economic growth and human-centred development. He further suggested that the reason for failing to improve social and economic conditions by

both government organisations (GOs) and non-governmental organisations (NGOs) is their inability to recognise the significance of appropriate HF activities and how to go about developing them. That failure is fuelling overdependence on assistance from various societies during hazardous risk events in the long run and render them victims. It, therefore, means that there is need to develop the creative potential of people so that they can rely on their own efforts and be innovative in case a need arises (Chivaura and Mararike, 1998). Most importantly, the people may become independent, fully responsible and accountable for their successes when encountering difficult issues (Adjibolosoo, 1995; 1998; 2000; Chivaura and Mararike, 1998).

In a bid to eradicate overdependence and develop the creative potential of people, there are certain universal principles that society needs to recognise which include: personal responsibility, accountability, integrity, commitment, selflessness and liberty (Adjiboloso, 2000). These doctrines are attained only if the HF approach is adopted since it is the only avenue of success for any organisation or society (Mararike, 2014). As far as risk management is concerned, focusing on the HF inculcate knowledge and skills in people (potential victims) so that they can save themselves in case of hazardous events like fires and floods (Chivaura and Mararike, 1998; Beijerse, 1999; Adiibolosoo, 2004).

The HF is "the spectrum of personality characteristics and other dimensions of human performance that enable social, economic and political institutions to function and remain functional over time…" (Adjibolosoo, 1993:142). The HF concept is, therefore, about the impact of personality characteristics on a person's performance, effectiveness as well as efficiency towards tackling a certain task, hence it is concerned with the quality of people (Mararike, 2014).

Elements of the Human Factor Approach and Fire Safety

The emphasis of the HF approach is on the quality of people involved in an activity, their commitment to the ideals of their society, and their remaining in position and following a set agenda (Mararike, 2014). For the application of the HF approach to be possible in the context of health and safety, there must be consideration of some elements which include HF content, HF competence and HF engineering (*ibid.*).

Human Factor Content

This constitutes personality characteristics such as discipline, commitment, reliability and dedication. In public learning institutions, the building occupants (staff and students) must be disciplined, committed, reliable and dedicated when it comes to their own safety. Nevertheless, Mydin *et al.* (2014) suggest that in most institutional buildings, occupants lack discipline and dedication as they misuse the fire safety equipment yet the occurrence of fire is unpredictable and, therefore, in the event

of a fire emergency, the facilities might not be in good condition. Stollard and Abrahams (1999) add that some turn water in hose reels to their own personal, hence leaving them vulnerable the need arise.

Human Factor Competence

This refers to a person's organisational skills and capacity to deal with tasks which one will have set for himself/herself or by an organisation or society of which one is a member (Maraike, 2015). Basically, individuals achieve intended goals because of the use of their HF competences which include readiness, preparedness, ability, willingness, awareness and capacity to act and react to both internal and external stimuli. In case of fire safety management, these aspects play a pivotal role as they determine its efficacy and efficiency. It is encouraged that occupants must have technical knowhow towards operations of fire safety equipment to fight for themselves in case of fire outbreak (Mydin, 2014). However, Furness and Mucket (2007) argue that, in most public learning institutions, students and staff lack the skills and knowledge of operating fire-fighting facilities despite their availability.

Human Factor Engineering

According to Adjibolosoo (1998), HF engineering refers to how a person responds to the demands of a task and at the same time it is an indication of how motivated a person is to tackle the task. In addition, a person whose HF engineering is sound

carries out tasks without any probing and he/she knows what to do, when to do it, why it is done, how it is done and the likely consequences of doing or not doing the task (Mararike, 2014). In the context of safety and health management, HF is regarded as of great importance as many institutional buildings contain advanced fire safety equipment, but most of the occupants do not have the technical 'knowledge of how to operate the equipment as well as the appropriate procedures to vacate affected areas.

Legislation on Fire Safety in Zimbabwe

In Zimbabwe, there are a number of statutes that provide for fire safety management in buildings. The principal act governing health and safety issues is the Factory and Works Act Chapter 14:08, governed by the National Social Security Authority (NSSA) Occupational Health and Safety Department. In accordance with the provision of section 13 of the subject act, building owners are obligated to ensure efficient and effective management of fire safety issues in a property of any category and failure to abide by the prescribed demands attracts a criminal liability which may result in fines and/or imprisonment.

In addition, the Model Building By-laws (MBBL) (1977) used to provide clear guidelines on fire safety related issues in all building types, both non-institutional and institutional. That legal document was enforced by local planning authorities (LPAs) in their areas of jurisdictions. Chapter 11 of MBBL

stipulates that all building must have fire-fighting equipment and escape means. The scope and nature of equipment is determined by the size and use of a building. Generally, in the larger the building, the more sophisticated equipment and designs required for public learning institutional buildings. Examples of fire-fighting equipment required in buildings as stated in the by-laws include: fire alarms; fire extinguishers; fire blankets; sprinklers; fire hose reels and fire retardants, in accordance with provision of sections 49, 50 and 51. Additionally, it is stated under section 33 of Chapter 11 that the escape routes and emergency exit points should be distinctively and conspicuously marked in green letters of at least 15 cm in height to ensure visibility.

The by-laws suggest that public buildings must have hose reels, and these must be checked on yearly basis subject to the provision of section 52. The responsible team must also ensure that there is no illegal use of water since it must be available in case of a fire outbreak (Stollard and Abrahams, 1999). In addition, fire safety managers, with the help of facilities managers, must make sure that no partitions interfere with fire escape routes to lessen the evacuation time during a fire as according to section 33. Kobes *et al.* (2010) state that at some points occupants might be ignorant and stack objects on fire equipment which may pose accessibility problems when the need arises. This reflects lack of positive HF quality which will

require the management team to alert and educate new occupants.

The by-laws in accordance with sections 6 and 54 requires the installation of fire sprinklers, normally fixed in the ceiling and activated by heat-sensitive fire alarm. Their positions is strategically important as they reduced the effect of converted (hot gases and smoke) heat from the fire (Shields et al., 1999). However, despite that the by-laws emphasising the installation of smoke detectors and fire alarms to alert occupants, some occupants are not familiar with fire alarm signals and do not know what they mean, yet they are supposed to commence evacuation to the outdoor fire assembly point in accordance with the provision of section 33. In turn, this is a requirement for fire safety team to educate occupants about the meaning of the alarm and evacuation procedures as according to section 20. the section also mandates the fire safety team to educate occupants on the use of the fire safety equipment in order to protect themselves in case of fire outbreaks (Rahim, et al., 2014)

Fire Risk Assessment

In any property, the FSM team must carry out fire risk assessment that will lend a hand to making certain that the fire safety procedures, fire prevention measures, and fire precautions (plans, systems and equipment) are all in place and working properly. According to Stollard and Abrahams (1999),

the Health and Safety Authority of United Kingdom recommended the following procedure for undertaking risk assessments: identifying potential fire hazards like ignition sources and fuel sources that might contribute to ignition and initial fire growth as this is an important part of traditional hazard analysis; carrying out a fire risk assessment and preparing a written safety statement to deal with fire safety risk to alert occupants to take necessary procedures during a fire emergency.

Fire Fighting

Since fire is a combination of triangle components (heat, oxygen and fuel) as demonstrated earlier in Figure 9.2, the removal of one of these components douses the fire. Different fire extinguishers are designed specific types of fire. Knowing the classes of fire helps the occupant to choose the appropriate extinguisher. Also, labelling on the fire extinguisher identifies which class of fire it is appropriate for; Class A, B, C, D or K and instructions on how to use it. Further, if the occupants discover a fire in the building, they should follow 3 As':- Activate; Assist and Attempt (Walden, 1989).

Activate – in this scenario building occupants should activate the buildings fire alarm system to alert others and at the same time notify the emergency services. Assist – the occupants should assist those who are in immediate danger or who are incapacitated but this must not done at the helper risk. Attempt

-occupants should attempt to fight fire only after the first two steps have been completed and if they feel confident to do so. They must always have an exit to their back in case they need to escape. They should never attempt to fight a fire if there is heavy smoke since it can be extremely toxic and reduces visibility. They should only fight small emerging fires, since it is those small fires that might grow big and become dangerous.

According to Walden (*ibid.*) a fire extinguisher should be used when: the fire is contained and not spreading; the extinguisher is readily available; the occupant knows how to use it properly; personal safety is not compromised; and there is a clear path for escape. Thus, having such an understanding is very crucial as far as fire safety is concerned and this determines the level at which the human factor is incorporated in institutional premises. The management team should be in a position of making sure that all property occupants are well versed in and understand the basic principles of fire safety.

Emergency Evacuation

According to Stollard and Abrahams (1999), the primary aim of fire safety is to safeguard human life and, in the case of most buildings, the protection of property is a secondary consideration. So, for to safeguard the lives of building occupants in case of fire, they must vacate the affected premises. Provision is made for a safe means for all occupants to escape since a fire emergency usually involves evacuation to

a place of safety and the efficacy of the means of escape in any building is relied upon during an outbreak (Kobes *et al.*, 2004; Mydin *et al.*, 2014). In simple terms, this means that there should be well and properly marked fire safety labels to ensure that occupants escape safely to assembly points. During the early stages of fire, people should escape by themselves or be rescued by others, hence understanding of fire safety is important (Sabramaniam, 2004). However, in case of advanced fire stages (growth and fully developed), assistance from fire safety experts must be sought.

Training and Education of Building Occupants

From a scholarly view, public institutional buildings are equipped with modern fire-fighting equipment but the lack of technical expertise by occupants towards the use of the equipment undermines the effectiveness of fire safety management (Sabramaniam, 2004; Furness and Mucket, 2007; Mydin et al, 2014). This means that management are failing to recognise the need for understanding of fire safety issues by the occupants. This influences the lack of safety proficiency, which is a combination of knowledge, skills and experience that ensure roles are fulfilled and tasks completed regarding the hazards involved and the risk control measures necessary to achieve the required levels of safety (Furness and Mucket (2007). Thus, the fire safety team must train and educate building occupants to

ensure that they have necessary information and skills to deal with fire issues on their premises.

Human Factor in Fire Safety

Developed Countries Context

There has been an outbreak of fires since the industrial revolution, as shown by the Great Chicago and Boston Fires of 1871 and 1872 respectively (Pauly, 1984). These fires resulted in the loss of hundreds of lives and destruction of properties (both real estate and valuables) worth billions of dollars. The studv undertaken bν United States Department of Environmental Health and Safety (DEH/S) in 2001 indicated that between 1.5 and 2 million fires occur each year in the United States with many other fires going unreported. Between 3 500 and 4 000 Americans lose their lives each year, and another 20 000 to 30 000 are injured because of fires (ibid.).

Additionally, data from United Kingdom reveals that in 2006, there were about 2 000 fires reported in hotels, boarding houses and public learning institutions and other similar facilities (Klemola, 2008). In United States of America (USA), Ahrens (2008) found that property(ies) with sprinklers did not have any fire-induced deaths in the years 2003-2007, and material losses were 73% lower than in those properties which

without sprinklers. This emphasised the importance of installing sprinklers in any building to manage and control fires.

However, Harris (2004) has revealed that occupants of several institutions or residential dwellings with fire escape/evacuation plans may not know how to use them in the event of a fire outbreak. A study conducted on adults living in private households as well as educational institutions in the USA found that most of Americans interviewed had an escape plan for use in case of a fire, and among them, a larger percentage had not implemented the plans. Three quarters (75%) of the respondents believed it took 10 minutes or less for a fire to turn deadly, meaning that they were aware that practising an escape drill would shorten the time of escape for people to a safe environment, meaning knowledge was not corresponding to people's practices.

Moreover, it has also been indicated that some institutions of higher learning have not yet complied with fire safety preparedness standards, putting many people at fire risks. This was evidenced by a study conducted by the Ministry of Education in Malaysia which found that fire safety preparedness in the institutions was at 76% in compliance level. Poor staff attitude on the importance of fire safety preparedness and

knowledge on the same were some of the fire safety preparedness elements identified (Chandrakankan, 2004).

Developing Countries Context

Africa as well has been affected by fire disasters. For instance, in 2011 Ghana recorded 53 institutional fire outbreaks (Ghana National Fire Services, 2011). Buildings compliance to fire safety preparedness regulations should be observed to reduce the impact of fires. A study on disaster risk assessment at the University of Ghana in Balme library found that the library annex had no balconies and had one exit for a three-storey building. The presence of balconies as a vital component in disaster response by acting as landing pads for trapped victims awaiting rescue, was therefore, overlooked (Adinku, 1999).

In the same study, library staff had not been trained on disaster management. The library annex did not have fire extinguishers and most of the fire extinguishers available in the main library were not working (*ibid.*). This is not an unusual phenomenon in most buildings in which inadequate infrastructure and fire-fighting equipment hinder timely and effective fire emergency management.

Another study on disaster readiness in academic libraries in Ghana revealed that none of the academic libraries had a plan in place to prevent or mitigate the impact of fire (Akussah and Fosu, 2001). It is in this light that institutional commitment is deemed paramount in fire safety preparedness in terms of writing policies/guidelines and enforcing the fire policy implementation strategies. This ensures that fire safety preparedness practices are fully integrated in the institution's administration (Adinku, 1999).

Local Context

Zimbabwe has been affected by fire outbreaks in various parts of the country with most of them going unreported. This makes it difficult for managers and policy-makers to quantify the impact of fires on the nation. There are limited national statistics on fire outbreaks in the country and no significance study has been conducted to assess compliance to fire safety guidelines and knowledge and attitudes of staff and students in various learning institutions. One of the remarkable fires which got wide coverage was the one that razed a Mukaro Girls High School hostel (Gutu) on the 16th of March 2016. It destroyed property worth more than \$100 000 (*Newsday*, 17 March, 2016). Pupils lost all their belongings – beds, uniforms, lockers, books – with no casualty recorded. The fire was identified in its

early stages, but the hostel had inadequate fire-fighting facilities, and it has be also noted that students could not operate the few facilities that were available.

9.5 RESEARCH METHODOLOGY

To accomplish a scientific and systematic search for information on this topic, two research approaches were employed, namely quantitative and qualitative, their combination resulting in a mixed approach (Cresswell, 2003). That amalgamation was done to give a better understanding of the research problem than either one. For this study, HF approach in fire safety management is more of qualitative in outlook, attracting descriptive research, but for the rationale of its validity, the quantitative method was adopted, ensuring the possibility of a triangulation approach. Bush (2007) opines that methodological triangulation involves using similar data set from multiple research methods and analysed from different perspectives in order to enhance a better understanding of the research problem. In this study, as far as data collection is concerned, both primary and secondary methods of research were employed. The researcher collected primary data through visiting various university departments (both academic and researcher first administered non-academic). The questionnaires to building occupants before approaching the fire

safety department as the occupants were the fundamental respondents of the research. This was done to enable the researcher to collect data from more than one respondent at a time. After obtaining data from the questionnaires, the researcher carried out interviews (structured and semi-structured) with departmental heads and the Security Department (university fire safety department) to ensure a comprehensive understanding on HF issues, as well as its level in the university fire safety. The fire safety department was the key informant in this study. In addition, the method of last resort for the study, direct participant observation was utilised. Finally, the researcher collected secondary data from institutional health and safety reports obtained from the Security Department.

9.6 RESULTS OF THE STUDY

Demographic patterns of the sampled population

This study's survey of HF approach on FSM sought to reveal how socio-economic attributes of individual building occupants shape the university landscape. The survey noted demographic aspects that include gender, age, marital status and educational levels of the respondents. Of the 50 respondents interviewed, 35 were students and 15 were staff members. The respondents

further categorised into 21 male and 14 female students and as nine male and six female staff members as shown on Figure 9.3. From the study, it can be concluded that a majority of 30 (60%) the respondents were male, while 20 (40%) were female. Nevertheless, the data collected was free from bias as far as gender is concerned since gender balance was effectively considered.

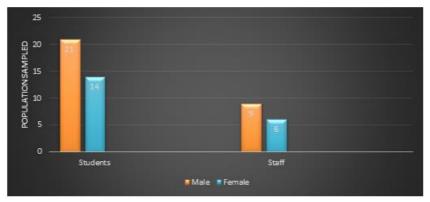


Figure 9.3: Sex of respondents (Research Findings, 2017)

Respondents were asked to indicate their ages and this assisted the researcher to be aware of the age groups being accommodated in the institutional buildings. As reflected in Figure 9.4, the age composition of respondents was skewed to towards young adults of the age bracket 18-30 years with 64% (32 respondents comprising 29 students and three staff members). The age group 31-40 accounted for 20% (10 respondents consisting of four students and six staff members),

and, lastly 16%, (eight respondents comprising two students and six staff members) was above 41 years. The findings portrayed that most of respondents were young adult students who occupy fire risky institutional premises, and were expected to have a thorough understanding of the fire safety skills.

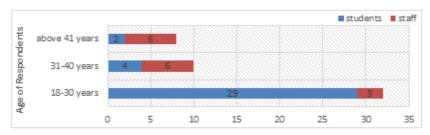


Figure 9.4: Age Groups of the respondents (Research Findings, 2017)

Levels of education of the respondents are highlighted in Figure 9.5, showing that the majority, 30 (60%), were undergraduates. Thirty-two percent (32%) were postgraduates who had attained their first degrees and were pursuing further studies, some staff members, while only four (8%) were of the none higher educational levels. Thus, from the study it can be concluded that the majority were undergraduates.

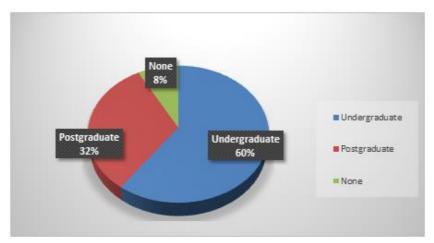


Figure 9.5: Educational levels of the respondents (Research Findings (2017)

Respondents were asked how long they had been at the institution. The outcome from the survey, as reflected in Figure 9.6, indicates that 26% (13 students) of the respondents have been at the institution for less than two years. The majority (46%) of the respondents (19 students and four staff members) had been at the institution for a period ranging from three to five years. Nine respondents (18%) made up three students and six staff members had been at the institution for a period of six to 10 years and, lastly, only 10% had been at the institution for over 10 years. This study clearly indicates that most of students and staff had been at the university for quite a number of years (at least three years), hence they were in a better position of understanding how the university fire safety issues were managed as well as the level at which their safety was being recognised by the fire safety team.

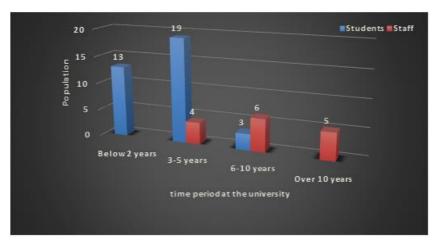


Figure 9.6: Length of time at the institution (Research Findings, 2017)

The possible fire sources in the university buildings

The study area, the UZ, consists of many buildings including administration and office blocks, hostels, dining halls, lecture theatres, staff quarters and libraries. In those buildings, generally, the occurrence of fire is unpredictable due to different materials stored and activities undertaken housed in them. Whenever there is adequate sources of oxygen, heat and fuel, as shown on the fire triangle, combustion may take place. In addition, the existence of different sources of fuel that determine fire typologies (Furness and Mucket, 2007) signifies that there are numerous likely causes of fire in the mentioned university buildings.

Possible causes of fire in university buildings

In a close-ended question, respondents were asked to highlight likely causes of fire in their department buildings and the intention of providing close-ended question was to avoid unnecessary responses. Their responses, in line with subject research question one, is presented below.

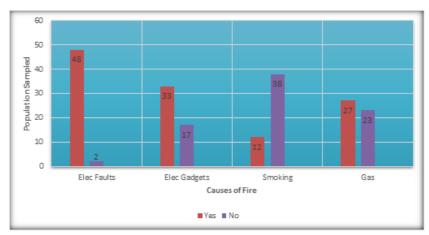


Figure 9.7: Possible causes of fire in university buildings (Research Findings, 2017)

Forty-eight (48) respondents (96%) stated that electric faults and exposed cables were the major possible causes of fire in their department buildings. Almost two thirds (66%) of the respondents indicated that the use of electric gadgets like irons and heaters played a significant role in fire causation, while 38 (76%) disagreed with the assertion that smoking may influence

an outbreak of fire in university buildings. On gas and other flammable chemicals, 27 (54%) respondents highlighted that there was a possibility that these could result in fire, especially in laboratories. Thus, from the study, it can be concluded that electricity can result in catastrophic fires in university buildings if not handled properly. These findings concur with Gold and Koigi (2009) who indicated that most of institutional fires are because of the use of electrical gadgets as well as electrical faults and exposed cables. Similarly, Adinku (1999), who carried out a study on fire risk assessment at the University of Ghana, pointed out that most of the fires experienced at the institution were caused by electric faults and misuse of gadgets.

Fire experienced in department buildings

Respondents were asked to indicate if they had experienced fire in their department buildings for the period they have been at the institution. Figure 9.8 shows their responses.

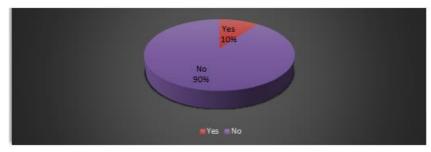


Figure 9.8: Fire in department buildings (Research Findings, 2017)

Asked about whether their department buildings have experienced fire, only 10% (five) of the respondents acknowledged its occurrence while 90% (45) stated that they had not experienced any fire. This can be supported by the data obtained from the interview with the key informant, as well as the university fire safety records obtained from the Security Department. The researcher noted that there were very few minor fires that occurred in halls of residents because of misuse of electric gadgets like water heaters and irons. However, it was revealed that there was one major fire incident caused by an electric fault at the Central University Kitchen in 2005. The findings reflect that there was no any casualty recorded since it happened during the night but property worth thousands of dollars was damaged.

Existing fire safety facilities in university buildings

Respondents' view on existing fire safety equipment
Respondents were asked to highlight fire-fighting facilities found
in their respective buildings and their responses are shown
below.

Table 9.1: Existing fire safety equipment (Field Survey, 2017)

Fire safety feature	Exists	%	Not exis	t %	Not sure	%	Respondents
Water or foam	45	90%	2	4%	3	6%	50
extinguishers							
Carbon dioxide	45	90%	2	4%	3	6%	50
extinguishers							
Dry chemicals	42	84%	8	16%	0		50
extinguishers							
Halon extinguishers	6	12%	7	14%	37	74	50
Sprinkler and alarm	3	6%	40	80%	7	14%	50
system							
Hose reel system	50	100%	0		0		50
Fire blankets	0		40	80%	10	20%	50
Fire hydrants	0		41	82%	9	18%	50
Well labelled fire safety	50	100%	0		0		50
signs							
Fire alarm system	4	8%	35	70%	11	22%	50

Out of the 50 respondents, a majority 90% stated that water or foam and carbon dioxide extinguishers existed in their department buildings, compared to 4% and 6% who stated, respectively that it did not exist and that they were not quite sure. Similarly, 84% of the acknowledged the existence of dry chemical extinguishers against 16% who mentioned that there was none. However, on halon extinguishers, 74% of were not certain about their existence and only 12% confirmed their existence while, 14% disagreed. There were no sprinkler and alarm systems, fire blankets and fire hydrants in most university buildings, as highlighted by more than 80% of the respondents. Respondents were unanimous on the existence of

hose reel systems and well labelled fire safety signs in their respective buildings. So, from the study, it can be concluded that majority of the university buildings had fire-fighting facilities.

Fire safety department's view on existence of fire safety equipment

During the study, the fire safety department as the key informant was interviewed to highlight its view on the existence of fire-fighting equipment in the university buildings. It was stated that several university buildings had basic fire safety equipment as requested by the MBBL and the key informant was not certain on the actual figures hence provide estimates as shown below.

Table 9.2: Fire safety equipment in buildings as stated by fire safety team (Research Findings, 2017)

Fire Equipment	Percentage/Number of Buildings
Portable Extinguishers	About 80%
Hose reel	About 75%
Sprinkler and fire alarm system	3 buildings only
Well labelled exit signs	About 80%

Like the outcome obtained from the questionnaires, the key informant also highlighted that the water or foam extinguishers, carbon dioxide extinguishers, dry chemicals extinguishers, hose reel systems and well labelled fire safety signs were commonly found in most of university buildings, according to the inventory of the facilities. Similarly, from the observation, the researcher noted that portable extinguishers were in almost every building, except for a few halls of residents like Manfred and Carr Saunders that were experiencing challenges of theft of facilities once installed. The key informant also indicated that functional hose reel systems and well labelled exit signs were in place in approximately 75% and 80% of the university buildings, respectively.

The fire Safety Department highlighted that functional sprinkler and fire alarm systems were existed in three buildings only, in administration block, main library and Faculty of the Engineering. Nevertheless, subject to the provision of Chapter 11 of MBBL, section 50 subsection (9) paragraph (c), every occupancy unit with a high fire load (potential severity of fire commencement and spread) should have sprinklers installed to ensure fire suppression in case of emergency. The findings from the study reflect that some buildings like departmental libraries and offices, as well as laboratories with high fire load due to combustible materials they hold ,did not have sprinklers as required by the MBBL. This clearly shows that the institution had very few buildings with adequate and enough extinguishing equipment, most probably because it was where most relevant university assets and information were housed.

Condition and state of the existing fire safety equipment

During the analysis of the outcomes, the researcher managed to discover the state and condition of the fire safety equipment installed in the university buildings. The maintenance strategy utilised to service the facilities was also ascertained based on interviews undertaken with departmental heads and fire safety department as well as the data gathered through questionnaires.

Regularity of servicing fire safety facilities

The frequency of servicing the fire-fighting facilities determines their condition. Results on the time taken to maintain fire safety facilities are depicted in Figure 9.9.

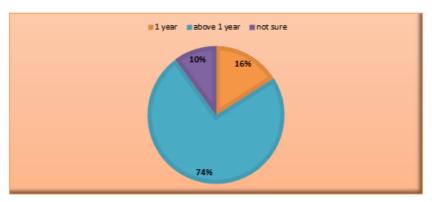


Figure 9 9: Regularity of equipment service (Research Findings, 2017)

According to the provision of Chapter 11 of MBBL, section 49 subsection (3), inspection and servicing of fire-fighting equipment should be performed after every 12 months to maintain its proper working condition. Asked about the frequency of maintenance of equipment, eight (16%) respondents indicated that it was performed on a yearly basis while, 37 (74%) said the maintenance was carried when it was already overdue, in most cases after two years. Only five respondents were not sure about the time frame. Consolidating the outcome with the findings obtained from the key informant, it was established that the university outsources the service to fire engineering companies like Allied Fire Authority (Pvt) Ltd, Pioneer Fire Company and AFA Fire Engineers. It was ascertained that the university was using a piecemeal maintenance approach to service the equipment. This shows that equipment in several buildings was due for maintenance, and this can be supported by the researcher's observations, that dates for inspection and servicing had already lapsed by about two years. Therefore, from the study, it can be concluded that the maintenance of equipment in buildings by the Fire Safety Department towards was not in compliance with the provision of Part V of Chapter 11 of MBBL.

Condition of fire safety equipment

Respondents were requested to highlight the state and condition of fire-fighting facilities in their respective buildings and their responses are shown in Table 9.3

Table 9 3: State and condition of fire equipment in university buildings (Research Findings, 2017)

Fire safety feature	Good Condition	Not in	Not
		Condition	Sure
Portable fire extinguishers	30%	64%	6%
Sprinkler and alarm systems	6%		94%
Hose reel systems	68%	14%	18%
Well labelled fire exit signs	92%	8%	

From the data gathered using questionnaires, most of the respondents (92%) stated that functional exit points were clearly and prominently marked by well labelled signs, while 8% indicated that signs in their department buildings were damaged. Furthermore, 68% and 30% of the respondents mentioned that the hose reel system and portable fire extinguishers were in good condition, respectively. However, on the same aspect, 14% and 64% highlighted that facilities were not in good condition, respectively, since their dates of service were already due, while 18% and 6% were not sure. On the sprinkler and alarm system, only 6% of the respondents indicated that it was in the good working condition whilst 94% stated that they were not certain. Likewise, since the inspection and servicing of the facilities were performed haphazardly, the researcher observed that several facilities were not in good condition as they were already due for servicing. Also, the researcher found out that in several hostels (New Complexes 1

and 3) and lecture theatres (New Lecture Theatre 400 and Engineering Lecture Theatre), extinguishers were vandalised.

Thus, it can be concluded that several basic fire-fighting facilities were not in good condition as they were vandalised and due for service hence lives of occupants were in danger. This requests preventative maintenance to keep the facilities in top condition as well as to avoid substantial costs that might be incurred for refurbishments as stipulated under the theory of De Sitters Law of Fives (Vanier, 2001). The theory states that a major repair can be expected to cost roughly five times what routine maintenance would have cost, and in turn, an all-out replacement will cost five times what major repair would have cost.

Level at which the university's fire safety accommodate the HF approach

Importance of Human Factor Approach in FSM

The respondents were asked to state whether the HF approach is of essence towards FSM in public learning institutions. They were given a description of the concept and their duty was to indicate if it is important to incorporate it or not.

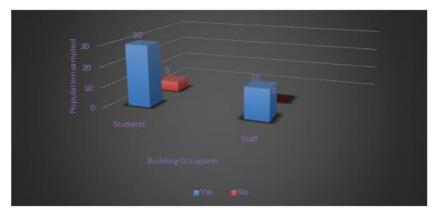


Figure 9.10: Significance of HF approach in FSM (Research Findings, 2017)

Out of the 50 respondents, most of 30 (60%) students and all staff members (30%) stated that the HF is very paramount as far as FSM is concerned. Asked for justification, they indicated that incorporation of HF in managing fire safety issues offer the following benefits: loss of life reduction; property damages reduction and quick responses during fire emergencies. Nevertheless, only five (10%) respondents indicated that the concept was not important for effective and efficient FSM and did not provide any justification for their response. In addition, during an interview with the key informant, it was indicated that the institutional fire safety team must ensure a marriage of HF approach and FSM in order to lessen the fatality rate during fire events.

Ability to operate fire-fighting facilities

The researcher further asked the respondents to highlight if they were able to operate the existing fire-fighting equipment in their department buildings.

Table 9. 4: Ability to operate fire safety equipment (Research Findings, 2017)

Fire Equipment	-	ble	No	able	Not	sure	Total
							Responses
Dry chemica	l 8	16%	40	80%	2	4%	50
extinguishers							
Halon extinguishers	5	10%	43	86%	2	4%	50
Carbon dioxide	8	16%	40	80%	2	4%	50
extinguishers							
Hose reels	11	22%	12	24%	27	54%	50
Fire blankets	32	64%	5	10%	13	26%	50
Any other (specify)	0		0	-	0		0

Most of the respondents indicated that they were unable to use any type of the fire extinguishers. The outcomes reflected that 40 (80%) respondents were not able to operate both dry chemical and carbon dioxide extinguishers, whilst only eight (16%) indicated that they were able and 4% were not sure. Halon extinguishers received the largest number of responses in which 92% of respondents highlighted that they did not have the technical expertise to operate them, while 10% could operate them. Further, 22% indicated that they were able to

operate hose reels and 54% were not sure while, 12 (24%) respondents indicated that they could not, at all. Fire blankets received most respondents as 64% indicated that they could handle them, while 10% could not and 26% were unsure. Further probing indicated that this was due to its simplicity in use after they were given a hint by the researcher. There was no any other fire equipment specified. Therefore, from the study it can be concluded that most of the building occupants at the university were not able to operate the fire-fighting facilities despite their existence in buildings, hence there is a lot that needs to be done to train staff and students on how to operate these facilities. Though the occurrence of fire risk in the buildings in question is minimal, inability to use fire-fighting equipment can result in great loss of valuables and occupants.

The level of incorporating HF approach in FSM

The respondent's opinion on the level at which the fire safety team was incorporating the HF approach in managing fire safety issues in university buildings was indicated in the questionnaires. Figure 9.11 shows how the respondents responses.

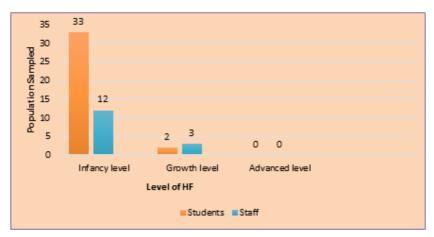


Figure 9.11: Level of HF Approach in FSM (Research Findings, 2017)

Nearly all respondents (45) (90%) indicated that incorporation of the HF concept in FSM was at the infancy level. However, 10% of the respondents, constituting two students and three staff members, highlighted that the incorporation was at the growth stage whilst none of the respondents acknowledge the existence of the advanced level. Asked to give their opinion over the matter, the majority indicated that the fire safety team were not taking into consideration whether building occupants were able to utilise the fire-fighting facilities during emergencies despite the availability of those facilities in their buildings. Further, the key informant indicated that the level of incorporating the HF concept was at an early stage since very few building users were able to operate the equipment. Outsourcing of fire safety service and shortage of experts to educate occupants were cited as the problem influencing the

low level of accommodating the HF philosophy. Nevertheless, the situation at the institution contradicts what has been stated by Adjibolosoo (1995; 1998; 2004), Mararike (1998) and Adu-Febiri (2001) on HF competence towards goal achievement of fire safety. In their works, the scholars state that individuals achieved their intended goals due to the use of their HF competences which include readiness, preparedness, ability, awareness and capacity to act and react to both internal and external stimuli.

Stakeholders' perspective on the operations of institutional fire safety management

Perception on the level of preparedness

Figure 9.12 depicts the perception of respondents on the preparedness level of the fire safety management in university department buildings.

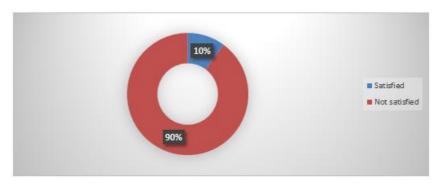


Figure 9.12: Satisfaction on level of preparedness (Research Findings, 2017)

The findings show that most of the respondents(45) (90%) were not satisfied, whereas five (10%) were. Asked to justify their responses, most of the respondents highlighted that the responsible fire safety department was undermining their safety since most of the facilities were not in good condition as well as their inability to operate the fire-fighting equipment. This is supported by the information obtained from the key informant as the fire safety department testified that it was also not convinced by the preparedness level towards fire safety in university buildings. It has been noted from the literature that fire is one of the most common disasters that causes more deaths than any other type of disaster (Stollard and Abrahams, 1999). But fire would not be that deadly if occupants had early warning from smoke detectors and everyone knew how to act in case of a fire emergency. This means that more needs to be done to ensure high levels of preparedness.

Compliance with fire safety legal framework

The study aimed at ascertaining the compliance of the FSM in institutional buildings with fire safety rules and standards stated by the MBBL. According to MBBL standards, every learning institutional building must be serviced with advanced and adequate fire prevention, protection and suppression systems, depending on the purpose of the building. However, from the observation undertaken by the researcher in collaboration with findings obtained from the key informant, it was revealed that

about 55% of institutional buildings like lecture rooms and departmental offices had inadequate facilities except for few buildings like Rural and Urban Planning (RUP), Main Library and Administration block. This clearly indicates that the level of compliance was very low. Moreover, most buildings' emergency exit routes were locked and the keys were not available in their boxes, meaning that in case of fire, no one was able to use those exit points. According to Subramaniam (2004) and Pires (2005), it is the mandate of the fire safety personnel to ensure that building occupants know how to use the equipment in case of fire emergencies. However, in this case, it was the reverse, as most of the respondents acknowledged their inability to use them as reflected by their responses in Table 9.4. Thus, from the study, it can be concluded that more must be done to ensure 100% compliance with the legal framework.

Challenges faced by fire safety team in managing the fire safety systems

In relation to the incorporation of the HF approach towards managing fire issues in university buildings, some incredible challenges that were faced by the fire safety department were noted. The respondents were asked to mention their opinions on the constraints whether they were agreeing or not as well the justification on chosen answers. As shown in table 9.5 the university fire department faces several challenges.

Table 9. 5: Challenges encountered by fire safety team (Research Findings, 2017)

Challenge	Agree %	Not agree %
Financial incapacities	26	74
Lack of skills and competences by safety	62	38
team		
Theft and negligence by occupants	56	44
Lack of legal enforcement	84	16

From the total number of 50 respondents studied, 37 (74%) were not in agreement with the assertion that the institution was lacking financial capacities to ensure high standards in fire safety. Asked for justification, the occupants stated that it was negligence by the university authorities as the institution was receiving a lot of funds from its stakeholders and was prioritising other issues like walkaways renovations at the expense of human safety. On theft and negligence, 28 (56%) respondents agreed, mentioning that several facilities were misused and at the same time several facilities were stolen, especially in hostels. Moreover, 31 (64%) respondents agreed on the skills and competences lacking by the fire safety team, whilst 19 (38%) disagreed. The other remarkable challenge noted was lack of legal enforcement and most of respondents (84%) agreed with that assertion since no follow-ups were being done by the local authorities to ensure that systems were operating efficiently.

Findings obtained from the key informant indicated the same problems. On the financial incapacities, it was indicated that the institution was facing budgetary constraints which led to the adoption of piecemeal maintenance strategies on servicing equipment whilst prioritising critical areas. It was highlighted that this lack of adequate funding restricted the programmes of educating both students and staff on the use of fire safety equipment since the university had no in-house fire safety experts. This simply means that the team responsible for fire safety was not quite versed with adequate knowledge on fire and, in case of fire, little help could be expected from them. The negligence problem was also mentioned by the key informant since several students were stealing fire extinguishers particularly in halls of residents, which put them at risk in case of fire. Rahim et al. (2014) indicated the same problem of theft and negligence by occupants in malls and that there is need to educate those occupants on the benefits of having the equipment for their welfare and safety. Thus. the aforementioned challenges need to be rectified to ensure effective incorporation of the HF concept in FSM.

9.7 DISCUSSION

The first and foremost theme of the study assesses the level of availability and the condition of existing fire safety systems in university buildings. Harris (2004) states that after the occurrence of the great fire incident at Our Lady of the Angels Schools (USA) on the $1^{\rm st}$ of December 1958, which killed 95

people (both students and teachers) and demolished property worth millions of dollars, stricter codes were enacted globally in public learning institutions. These statutes were to ensure that fire safety facilities were adequate and in good condition since the investigations after the fire incidence indicated that the school was lacking fire sprinklers and detectors and there were no fire doors on all floors and there was only one fire escape. However, that research contradicts the results obtained from this study in that several facilities were in existence in various department buildings but their maintenance was overdue, hence were not in good condition, putting occupants at risk. Consistent with the findings of this research Adinku (1999) at the University of Ghana who revealed that adequate firefighting facilities were installed in university buildings, but they were not in good condition since their dates for servicing had lapsed.

The level and degree of unification of the human factor approach in the university's fire safety management has been discussed as the second theme of the study. Although it was noted that advanced fire safety equipment was installed in the university, the study revealed that the FSM was inefficient and ineffective without the incorporation of the HF. The HF concept adoption in managing fire safety issues was at the premature level due to lack of knowledge, awareness, capacity and ability to operate the equipment by both students and staff, endangering themselves in case of fire emergencies. In

addition, the findings revealed that the occupants were not aware of the emergency evacuation plan, yet it is very essential as far as fire safety is concerned, hence signifying complete absence of HF. The research findings partially correlate with the study undertaken by Harris (2004) in the USA, revealing that several institutions and residential dwellings had fire escape/evacuation plans and fire-fighting facilities, but occupants did not know how to use them in the event of a fire outbreak. Similarly, the findings revealed that the adoption of the HF approach in FSM at the UZ was at the infancy stage, and challenges like budget constraints, lack of skills and negligence by occupants, were also noted.

Another issue raised in this study was the stakeholders' perceptions on the operations of institutional fire safety team. As suggested by Stollard and Abrahams (1999), fire is one of the most common disasters, causing deaths more than any other type of disaster, but it may not be deadly if buildings had sophisticated early warning systems like smoke detectors as well as fire alarms and if everyone knew what to do in case of emergencies. This usually determines the level of preparedness of the fire safety team and from the study, it was revealed that various stakeholders were not satisfied about how the institution fire safety issues were managed. The fire safety personnel were not fulfilling their mandate of ensuring that building occupants were able to use the equipment (Subramaniam, 2004; Pires, 2005). So, a lot needs to be done

to ensure 100% compliance with the HF concept such that efficient and effective FSM in public learning institutional buildings can be attained, thereby, minimising the number of casualties and destruction of valuables from fire incidents.

9.8 SUMMARY

The research problem was that fire disasters occur in public learning institutional buildings despite the existence of advanced fire safety equipment installed. The lack of HF development, facilitating ignorance and awareness of fire safety by building occupants aggravates the damage and rate of fatality during fire events. It was noted that many basic HF principles, guidance, elements and techniques were not incorporated into safety the system design and management. The research proved this problem statement by achieving the research objectives and noted the challenges facing the integration of the HF approach in FSM at the University of Zimbabwe.

The major objective of the study was to assess the level of availability and the condition of existing fire safety systems in university buildings. The study established that various fire safety facilities were in existence in university buildings. Most of the respondents identified water or foam, carbon dioxide and dry chemical extinguishers as the common firefighting equipment in several buildings. However, halon extinguishers and wet chemical were non-existent in any of the buildings surveyed. There were functional hose reel system and well

labelled exit signs in nearly every building. Sprinklers and fire blankets were in very few buildings. Since not all respondents agreed on the existence of fire-fighting equipment, more needs to be done in this area to meet the required standards. Concerning the condition of the existing equipment, the research noted that dates for inspection and service of most of the facilities had already expired by about 2 years. The frequency of servicing of the fire fighting facilities determines their condition. The fire safety department was using haphazard approaches in servicing the facilities, meaning that very few were in good condition.

The study evaluated the level and degree of incorporation of the human factor approach in university's fire safety management as the second objective. The research noted that most of the respondents identified the HF approach as important in fire safety management as it ensures the reduction of loss of life and property damages as well as enhancement of quick responses to fire emergencies. Though the HF approach was regarded as a critical component, the study indicated that its incorporation in FSM was at the premature level. The major reason was that most of building occupants at the university were not able to operate the firefighting facilities. Thus, this is an area that requires more attention, especially through education to increase awareness of how to operate the facilities, hence ensuring an advanced level of HF fusion in FSM.

The third objective was to assess stakeholders' perceptions on the operations of the institutional fire safety team. Data analysis and interpretation reflected that most of the building occupants were not satisfied by the preparedness of the university fire This was safetv team. because the department was undermining their safety from fire since most of the facilities were not in good condition; most buildings' emergency exit routes were locked and the keys were not in their boxes, so no one could able to use those exit points in case of fire and that the occupants were unable to operate the firefighting equipment. This revealed that the fire safety management of the institution was not complying with the provisions of fire safety rules and standards stated in the MBBL and Factories and Works Act Chapter 14:08.

The fourth objective was to identify and explain the challenges faced in adopting the human factor approach in fire safety systems at the institution. Findings from the study established many constraints (both internal and external) faced by the institutional fire safety team. The internal difficulties noted include lack of financial capacities to ensure high standards of fire safety; lack of skills and competences by the safety team as well as theft of equipment and negligence by building occupants, while external challenges were lack of legal enforcement and support from the government. It was noted from the study that no follow-ups were made by local authorities to ensure that the system was operating efficiently.

9.9 RECOMMENDATIONS

The study's last objective was to suggest possible alternatives that can be adopted to enhance the amalgamation of human factor approach and fire safety management. In relation to the findings of the study, the following recommendations are suggested for the consideration by various stakeholders in the property industry which include public learning institutions, regulators, property companies and professional bodies.

According to MBBL, all building occupants should be trained on fire safety preparedness and awareness and in the safe use of fire-fighting appliances. So, the university should undertake regular basic fire safety trainings, especially during the orientation period. It should also perform awareness campaigns regularly to establish a high level of fire safety preparedness. In addition to that, every occupier should establish and implement fire safety policy, outline the organisation and arrangements for carrying out the policy, and all occupants should be informed on the contents of the policy. Similarly, property companies should also educate the occupants on the use of fire safety equipment so that in case of emergency, there is none loss of life and minimal property damages.

Regulatory bodies such as councils and NSSA must play a significant role by coming up with policies and legal frameworks that promote safety of building occupants in public learning institutions. This must include standards that ensure adequate

installation of fire safety equipment in all buildings, inspection as well as servicing of the equipment. They must make enforcements through inspections on the buildings in question in order to ascertain the level of compliance and ensure that lives and valuables of occupants are safe. This must also be done in commercial and industrial properties to guarantee health and safety of occupants.

There is also need for the institution to have internal fire safety experts, rather than outsourcing the service. These experts' duties must be to educate occupants and at the same time make patrols in all buildings to ascertain that all fire emergency exits, gangway and exit staircases are free of obstruction and fire exit doors easily. They should also facilitate emergency exercises or drills in accordance with the requirements of MBBL, to be conducted at intervals not exceeding 12 months. Further, there is need for provision of more fire assembly points and occupants must be familiar with them so that during an emergency, they know where they must go.

9.10 CONCLUSION

The level at which the learning institution incorporated the HF concept in FSM has been thoroughly analysed. From the study, related literature on both FSM and the HF concept has been reviewed and the methods used by the researcher to gather data during the study have been explained. As discovered from the research findings, the institution has advanced fire safety

facilities. However, despite the existence of those facilities, it has been noted that the adoption of the HF approach is at its infancy stage since the occupants were unable to use the facilities. The HF approach will be fully incorporated if responsible stakeholders in the property industry (both commercial and non-commercial institutions) consider some of the suggested recommendations that can embrace the amalgamation of HF concept and FSM, hence ensuring the safety of occupants in learning institutions, residential and commercial buildings.

Chapter 10: Summary, Conclusion and Way Forward

HENRY T. GURAJENA, INNOCENT CHIRISA & CHANDADA MASENDU-KUSANE

10.1 CHAPTER SUMMARY

This chapter is a summary of the book, key conclusions, and the way forward on value creation, service delivery, human factor and development and management of real property in Africa. The book was authored by several real estate practitioners, project managers and planners, with the intention of adding to the growing knowledge base on how value can be created to give people quality service delivery. It further enlightens on the implication of the human factor in averting fire while development and management of real estate property is another focal point of the book. In this chapter key conclusions from the book are discussed chapter by chapter, followed by recommendations and the pronouncement of the way forward.

10.2 KEY CONCLUSIONS FROM THE BOOK

This section provides the concluding remarks emanating from the book chapter by chapter. Chapter One gave an overview of the book, introducing key issues and highlighting the general structure of the book and its constituent chapters. In this regard, the discussion of concluding remarks is outlined from Chapter two to Chapter 9.

10.3 CHAPTER 2

The chapter focused on the interplay of globalisation, foreign direct investment and real estate investment in Sub Saharan Africa and Northern Africa. The chapter established that Africa is rapidly urbanising to the extent that by 2030, more than half of its population will be living in cities. This calls for substantial improvement in service delivery by various local authorities managing cities across the African continent. Services delivery requirements in this regard include quality and quantity aspects of housing, water supply and job opportunities, among others. The book submits to the conclusion that this is a huge task given the resource incapacities, mismanagement and the political circus that usually characterise African states. It is thus apparent for African countries to use FDI as a vehicle to channel development and management of urban services for the benefit of their citizens.

Globalisation has been viewed in scholarly writing as the flow of human capital, financial resources and technologies across nations constituting the globe. Although this has been criticised as the continued dominance of capitalism at the expense of weaker economies, it remains an influential aspect which African nations can benefit through injection of capital from foreign investors. The chapter examined how African nations can fit in and benefit from globalisation and, consequently FDI. In the context of Africa, globalisation in the real estate began to increase in the post-2000 era. Many foreign companies thus

injected capital into land development initiatives, realising profits in the process. Therefore, the book concludes that the injection foreign capital is important in realising value creation. On the other hand, these foreign investors come in with skills and knowledge to develop and manage real property on the African continent.

The theoretical framework by Appadurai (1996) has been key in discussing the countries selected in the case study methodology adopted in the chapter. Key elements of this framework include ethnoscapes, technoscapes, financescapes, mediascape and ideoscapes. Although discussed separately for clarity's sake, these factors are highly interdependent. For instance, the ethnoscapes concern people involved in the movement of capital across borders, fulfilling the financescape concept. Technology, media and ideoscapes are linked, for instance technology is used by media houses to share information with various users. Ideas can be communicated via media.

Tanzania's ethnoscape is diverse as it constitutes co-existing Muslims and Christians, contributing to diversity in infrastructure needs. Co-existence is a pull factor to FDI in the real estate sector because it shows the country's tolerance toward varied ethno-religious groups. The country can market its products through the internet while media reports on tourist destinations in the country, hence lure FDI. However, land policies are still fragile. South Africa has a mature financial,

capital and real estate market. This promotes local and foreign investment in real estate. The book concludes that policies of the South African government are clear and liberal to some extent such that it is better able to fit in the globalisation move. Although FDI is flowing into Zimbabwe, the *ideoscapes* are a bit twisted because of political and civil unrest since the turn of the new millennium. Policy inconsistency, and currency challenges remain dominant, thereby negatively affecting investments in real estate.

The study established that Egypt has been ranked first in FDI flows in Africa. It has a strong tourism sector offering investors opportunities to invest in hotels. accommodation, commercial facilities. Libya has a multi-ethnic society promoting co-existence, while its rich oil reserves attract FDI. Nevertheless, the Arab spring uprisings and the after effects may deter and discourage some investors to put in capital into these countries.

10.4 CHAPTER 3

This chapter systematically discussed service delivery and local government tax systems with a view to assess the practices in Africa. It further assessed the possibility of improvements such as the introduction of participatory budgeting, taxing the informal sector and capitalising on land value capture. Reviewed literature and theoretical underpinning drew lessons from Asia and Latin America where tax systems and service delivery have

been successfully done. It was established in this chapter that a tax system must be designed to favour all interested parties in the real estate sector. However, this contradicts the case of African local authorities, as there are spasmodically introduced tax systems on land. Lessons can be drawn from China which used participatory budgeting as way to curb corruption and improve administrative efficiency and enhance state capacity.

In Africa, Asia and Latin America, the informal sector is dominating the formal sector. Against this background, taxes must be introduced to collect revenue for the purpose of funding service delivery. The chapter established that several malpractices, for instance, corruption and mismanagement, hinder the implementation of methods that worked elsewhere. Three facets of informality exist: legality, registration and payment of taxes enterprise size, and level of capital intensity. There is a challenge in quantifying informality because there are no clear records, hence the chapter used a working definition of informality, unregistered activities in the economy. Zimbabwe, Tanzania and Nigeria have highest rates of informality. Mozambique, the Ivory Coast and Madagascar have moderate levels of informality, while Botswana, South Africa, Cameroon have low rates.

Value capture involves harnessing land value gains that materialises because of additions of special improvements to benefit a specific area. In other words, 'value capture' is used

interchangeably with 'betterment levy'. Justification for the term is *ad valorem* focussing assessments of ordinary property taxes, and is similar in conception to development exactions and impact fees. The chapter further concluded that taxation is the best alternative to facilitate the integration of state resources to fund state building efforts in developing countries. Developing countries have tax systems that are often regressive and distortionary and lack legitimacy. Because of this, value capture is impeded.

The chapter further reinforced that a betterment levy must be charged to the citizens once a local authority improvements on the land. A betterment tax is issued when authorities effect a regulation that positively affects the value of a property, for example, when the bulk-factor of a building is reviewed upwards. Local government planning authorities must be given power by the central government to sell right to change use from rural to urban land use, which has more value. This has the potential to raise revenue for local authorities in Africa. Planning authorities can also use public land leasing to individuals and institutions to carry out uses that generate revenue. Another avenue for local authorities is to permit the public sector to acquire and resell land. This function helps to capture the full value of the gains on land since in many parts of Africa, a certain tax accumulates (transfer duty/stamp duty) to the government each time real estate exchanges hands amongst citizens.

The chapter concluded that Africa must develop a tax system on land because land is one of the largest assets that the continent has. With a great number of people living in slums, African governments must tax them in a fund-raising move for the provision of basic services. This must be supported by functional markets and recruitment of professionally trained planners who can, with due diligence, carry out their duties effectively. Policies and requisite legislation permitting local authorities to own and control land need to be set. The study is an instrument enlightening local authorities on the potential of taxing the informal sector while tipping them on the design of appropriate ways capture land value.

10.5 CHAPTER 4

The chapter was guided by the Modern Portfolio Theory which suggests that investors base their allocation decisions on the expected return and risk of investments, and diversification benefits, measured through the correlation of returns with other assets in the portfolio. Real estate is one of the favoured investments because it can increase in value over time and is an effective hedge against inflation. As a catalyst in management of real estate, a management triad is used by international institutional investors to control and monitor real estate investments. Management triad includes property management, asset management and portfolio management.

Property management is the operation, control and oversight of real estate as used in its broadest terms. Asset management is defined as the coordinated activity of an organisation to realise from assets. Portfolio management refers to combination of securities, such as bonds, stocks, wine, real estate and other instruments. Functions involved management of properties involve site management, personnel management (onsite and offsite staff), and management of trust accounts, leasing services and tenants' service provision. In recent times, property management encompasses facility management where development and control of non-core support services are done. Asset management and portfolio management ensure that investors realise value from an array of assets.

The chapter used a case study approach where interviews with real estate professionals were employed to gather data. Thematic content analysis was applied on the National Railways of Zimbabwe Contributory Pension Fund (NRZCPF), Zimre Property Investments (ZPI), Mashonaland Holdings and Pearl Properties. Although NRZCPF has no registered estate agent it is the second largest real estate property owner in Zimbabwe. It has investments in bonds, capital market, money market, treasury bills and prescribed assets. The study concluded that the use of the management triad is largely undefined owing to overlapping duties by property, asset and portfolio managers.

ZPI has a dominant office real estate in the central business district (CBD) of Harare. However, the specialisation in offices indicates a lack of diversity. Due to a decline in office usage and revenue generated thereof, ZPI has engaged in residential developments. It has diverse skills bases that oversee its investments. Mashonaland Holdings has mix of office and industrial property, 45% and 43%, respectively. In comparison with ZPI, Mashonaland Holdings (MH) is better in terms of diversification since it has a balance between industrial and office in the CBD. It uses the management triad in a more defined way than ZPI. Pearl Properties has a more diversified portfolio since it has a considerable mix of four types of commercial property classes. Its portfolio predominantly consists of the CBD office and the industrial property type. The expansion of Harare has made office parks more attractive to high class tenants, like accounting firms, such as Price Waterhouse Coopers, earning the company revenue. The use of management triad is comparable with MH.

10.6 CHAPTER 5

The chapter studied how the Harare City Council is losing revenue due to operations of touts and use of undesignated drop and pick-up points, yet existing termini within the CBD were designed for revenue collection to fund road construction and maintenance within the city's jurisdiction. In the analysis of the loss of revenue to the touts, the study concluded that the city council must be assisted by other institutions in controlling

the public transport system in the city centre. It was generally established that operators pay US\$1 to a tout for every outgoing commuter omnibus. This payment is based on the fare charged per passenger per trip. If restraint is not exercised on touting and use of undesignated passenger pick-up and drop points, the Harare City Council will continue to lose revenue. The study informs the urban management and real estate agenda on the potential revenue that can be received by the council from the termini around the city centre.

The other key conclusion from this chapter is that the intensified densification of the city, through residential developments, is generating more traffic than before. The resultant increase in commuter omnibuses and purchase of ex-Japanese used vehicles has increased vehicular traffic on the roads of Harare. Interviews with personnel in the traffic management section of the Harare City Council indicated that budgets outline the intention of the city fathers to collect revenue. However, conflicting roles between the council and ZINARA is a challenge. It was established that ZINARA does not disburse funds to the council as stipulated. Thus, the council does not have enough revenue to fund road maintenance and termini. Public transport operators' high operating costs are as they must pay ZINARA, Vehicle Inspection Department and police. These costs include registration fees, operating licenses and route permits. Additionally touting and police bribes take a share on the operator's generated revenue.

10.7 CHAPTER 6

The chapter sought to investigate the challenges of rental accruals due to the COVID-19 pandemic in Botswana. Due to restrictive lockdown measures, most companies faced closures and reduced working hours. This reduced their revenue-generating activities. Investors invest in real estate to safeguard and store value, to guarantee a stream of income and shield against inflation. However, in the face of COVID-19, earning rentals from unemployed tenants became difficult. Receiving the highest possible income and value from an investment was made difficult because commercial real estate continued to bill tenants who were failing to generate income.

The conclusion emanating from the study is that COVID-19 resulted in rental accruals because property owners continued to bill rentals to meet mortgage payments and property maintenance costs. The failure to meet rent payments by tenants affected both property owners and managers, because they could not get income. Through questionnaires, interviews with tenants. property managers and REIB/REAC representatives, coupled with secondary sources, the study established that tenants had disagreements with property owners. Some tenants faced constant pressure from property managers to meet their rental obligations. However, it can be concluded that rental rebates were not granted to struggling tenants. The study concludes that prop-tech solutions help in effective record-keeping, tracking of transactions and reporting

in the real estate sector. Examples of such prop-tech are MDA, Classic, MRI and Novtel.

10.8 CHAPTER 7

This chapter reviewed effectiveness of government's initiatives to address low-income housing issues in Botswana. Reviewed literature indicated that the housing dilemma is a universal challenge, although experienced more in Africa, China and India. The study established that the demand for housing is increasing owing to population growth and immigration of expatriates. These circumstances have prompted residential market developments to match the rising demand for housing. The competition for this basic need has crowded out low-income earners to a greater extent, relegating them to dilapidated and informal housing.

Through online questionnaires and secondary data, the study concluded that the government of Botswana has adopted several initiatives to address the plight of low-income earners. This has been done through legislation and subsequent policy adoption. Examples include establishing the BHC in 1971 through an act of parliament and the Transfer Duty (Amendment Act No. 24 of 2019). Although the BHC has completed many housing units, many low-income earners are failing to buy the houses because of the elitist nature of its requirements. The Transfer Duty Tax and Capital Transfer Tax Acts of 2019 were enacted to promote property ownership by

locals as opposed to acquisition of property by foreigners. By increasing the threshold capital gains tax when a foreigner purchases a property, the act makes properties expensive. The study concluded that the act reduces the number of willing buyers on the property market.

Furthermore, the study concluded the Amendment Exempt Tax to first-time citizen homeowner makes it easy for parents to transfer their properties to their children without tax. This strategy enhances property ownership by local Batswana. However, the act discourages property ownership by foreign nationals - a deterrent to FDI. Simultaneously, this piece of legislation disqualifies most of low-income earners to purchase houses offered by the BHC. In situations like that, it was revealed that it was difficult for youths to purchase houses, while the majority bought land and built houses for themselves instead of purchasing completed BHC units.

10.9 CHAPTER 8

This study analysed how Zimbabweans were adequately housed using the existing funding and housing finance facilities. The chapter concluded that housing is a fundamental human right noted by global institutions such as the UN and the World Bank as evidenced by their initiatives in assisting several countries across the world. Nevertheless, despite the adoption of strategies meant to deliver housing to people, developing countries often struggle to house their citizen especially low-

income earners. This is shown by long housing waiting lists in several local authorities. It is against this background that many citizens are living in overcrowded slums, informal housing in developing countries, including Zimbabwe.

The study concluded that the challenge to housing the poor in Zimbabwe is an outcome of the economic malaise that the country has gone through since the turn of the new millennium. Low salaries, inflations, unemployment, currency distortions and high levels of informality results in many failing to qualify for housing finance from banks. Because of this, most households live in stress where a fairly large portion of the income is spent on rentals or mortgages. Key informant interviews and questionnaires were used to solicit information from respondents selected through random sampling. Snowball sampling was used to choose respondents from institutions.

The study found out that mortgages are not available to most of home-seekers. Because of the high cost of buying a completed house, most home-seekers buy vacant housing stands which develop on their own. This results in challenges of meeting both rentals and sustaining the cost of building the new home. Housing finance for the urban poor is unavailable and banks are reluctant to give mortgages in the local currency because of its inflationary nature. The other challenge is that of policy inconsistency on the part of the government. which has affected the housing sector at large, including developers and

real estate companies. It was established that existing bankfunded or developer-initiated housing development projects are not affordable for the poor, hence their capture by middle- and high-income earners.

10.10 CHAPTER 9

The study assessed the level of inclusion of the Human Factor (HF) approach in fire safety management system at the University of Zimbabwe. Building fire is a potential hazard in each and every building category (residential, commercial, industrial and institutional). The HF approach refers to a person's awareness, ability and capacity to deal with a task without any probing and knowing what to do, when to do it, why it is done and the likely consequences of doing it or not doing the task. Literature reviewed indicated that lack of the HF results in lack of knowledge and awareness of fire safety by building occupants. Fires fall into several categories, from Class 'A' to Class 'F' or 'K'. Each class has a peculiar causative factor and amelioration.

Through a triangulated research methodology, the study concluded that given the heavily built University of Zimbabwe environment, the incidence of fire was a possibility. Furthermore, the study revealed that possible causes of fire at the university included electric faults, exposed cables and use of electric gadgets, while smoking was considered less of a cause. Existence of fire safety equipment, including water, foam, and

dry chemical extinguishers, was acknowledged by respondents. However, halon extinguishers, sprinkler and alarm systems, fire blankets and fire hydrants were not available in some of the university buildings. Although there were clearly labelled fire warning signs on most exit points, the overall conditions of fire safety equipment were not in tandem with established FSM standards.

The study concluded that the HF is a crucial concept in FSM. Through shaping occupant actions and reactions to FSM, the HF has the potential to quicken responses during fire emergency and, consequently, reducing property damage and loss of life. Respondents highlighted that they were not able to operate existing fire safety equipment because of lack of skills. Moreover, there was a noted level of negligence on the part of the university because fire safety equipment was not well maintained. Theft, misuse and vandalism were common challenges, especially in student halls of residence. With this situation, the study concluded that the adoption and consequent implementation of the HF in the FSM at the University of Zimbabwe is still at infancy.

10.11 RECOMMENDATIONS AND THE WAY FORWARD

In response to globalisation, African countries need to create conducive environments for FDI as an addition to local investments in the real estate sector. However, caution must be exercised to control these investments so that they do not

crowd out or disadvantage local companies. Policy consistency and legal provisions must be rationalised to ensure a proper real estate investment for the benefit of the economy and citizens.

Concerning Chapter 3, African governments need to benchmark their respective local land markets and tax systems with successful international cases. These must be timeously adopted, blended and adapted to the local situations. The elimination of malpractices, such as corruption and mismanagement, is an important factor in effectively administering functional land markets and successful tax regimes to fund service delivery.

In Chapter 4, real estate companies in Zimbabwe should make use of the management triad in effective ways. The three applied components of property management, asset management and portfolio management must be applied to optimal levels by clearly setting out distinct departments and hiring well trained professionals. Diversification into various investments (stocks, bonds, money markets and various properties) by these companies is a possible hedge against risks and uncertainty.

On Chapter 5, the study recommends that policy reviews be done by the central government and effectively devolve traffic management to local authorities. This reduces unnecessary duplication of efforts by key stakeholders, including Harare City Council, police, ZINARA and the Vehicle Inspection Department, among others. If this is done, local authorities will have the jurisdiction over their plans, budgets and implementation of developments such as revamping bus termini in the CBD.

In a bid to address ¥ challenges highlighted in Chapter 6, the study recommends that technological applications be adopted by property managers to keep track of tenant payments, store information on payment trends and amounts rendered and balances. This helps record information on real-time bases for both decision taking and making in the face of pandemics such as COVID-19.

On Chapter 7, the government of Botswana should rationalise its policy and legal frameworks to offer affordable housing to its poor citizens. The downward revision of the requirements that a prospective home-seeker should satisfy to qualify for purchasing a house is a good strategy for inclusivity. Options for financing housing for the poor, including self-help and soft loans from government, should be explored to help them access housing. This has the potential to effectively buttress existing housing delivery systems to low-income earners.

In order to address the challenges of home-seekers in Zimbabwe identified in Chapter 8, the central government should review existing pieces of legislation so that they encompass the urban poor. The urban poor should be assisted by both local and central governments to get residential stands at affordable prices through subsidies. On service provision, private-public partnerships in water provision and road construction should be explored in the long term.

On Chapter 9, public institutions, such as universities and colleges, must engage in sensitisation occupants on the need to be on the guard against behaviours that are risky and inform them on the practices to adopt in the event of a fire outbreak. Once the users of the buildings are engaged and informed, the HF is adopted because it concerns the occupants' actions and reactions to FSM strategies.

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