

UNIVERSITY OF KWAZULU-NATAL

**AN APPROACH FOR DEVELOPING AN OPTIMAL RATES POLICY :
A CASE STUDY OF KWADUKUZA MUNICIPALITY**

Dianne Beatrice de Wet

Student Number: 211518602

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Supervisor: Professor Mihalis Chasomeris


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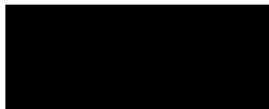
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Co- Supervisors Name: NA		
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Abstract

Levying a rate on property is incumbent upon Municipalities who have a Constitutional responsibility for providing services to and creating opportunities within their communities. There is a statutory obligation upon a municipality to develop and annually review a rates policy, which will inform its annual budget. Not all municipalities have the human resources to develop such budgets and policies and rely on consultants to assist. The study was based on a rates modelling tool that could assist where these resources were limited, as private consultants would not have to be appointed to assist in the drafting of a municipality's budget and policies. Three research objectives were developed to guide the study in identifying the most appropriated category of properties to be included in a valuation roll, to develop appropriate criteria for rebates and exemptions, based on categories of owners and determining the most appropriate rate randage to be applied to the various categories of property in the calculation of rates. The study was located in KwaDukuza Municipality with the rates policies of eThekweni, Umdoni and Ray Nkonyeni Municipalities being applied to KwaDukuza Municipalities valuation roll. A descriptive quantitative approach was utilised in this study. The model results for each policy were analysed and compared in order to reach a conclusion. It became apparent that a "one size fits all" approach to a rates policy cannot be used as each municipality has differing demographics, economies and industry which influences the approach to take with a rates policy. However, there are certain categories of property that can enhance revenue without negatively impacting on the affordability and commerce within a municipal region. There is a balance required between optimal income to encourage development within a region and the relief that should be made available to vulnerable members of the community.

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1. CHAPTER ONE : INTRODUCTION

1.1 Introduction and Problem Statement

Land tax practices in South Africa extend as far back as the late 17th century (McCluskey and Franzsen, 2001). Historically, not all land was taxed in South Africa, with agricultural land, rural land and Black townships being excluded from this tax. The Local Government : Municipal Structures Act, 117 of 1998 resulted in the establishment of municipalities to cover the entire country (Bell and Bowman, 2006).

Section 229 (2) of the Constitution of the Republic of South Africa, Act 108 of 1996 (hereinafter referred to as the Constitution), empowers a municipality to “impose rates on property, surcharge on fees for services provided by or on behalf of the municipality, and if authorised by national legislation, other taxes, levies or duties:

- a. may not be exercised in a way that materially and unreasonably prejudices national economic policies, economic activities across municipal boundaries, or the national mobility of goods, services, capital or labour; and
- b. may be regulated by national legislation”.

At the time (1996), Provincial legislation allowed each municipality to levy rates on land only, or land and buildings, either at the same rate or utilising one rate for land and another on the improvements. However, with the implementation of the Local Government : Municipal Property Rates Act, 6 of 2004 (hereinafter referred to as the MPRA) on 2 July 2005, all land in South Africa became potentially liable to property taxes (rates). The aim of this legislation (stated in the preamble to the MPRA) was to provide for a fair and equitable means of implementing these rates on property, while acknowledging that this income was a critical source of revenue for municipalities to fulfil their obligations in terms of the Constitution and other legislation.

Insofar as this revenue is essential to the effective functioning of local municipalities and delivery of services to their communities, we investigate the impact that rates policies have on a local municipality's income from property taxes.

The Constitution provides for various categories of municipalities (RSA, 1996, p. 50). A Category A Municipality is designated as a metropolitan municipality, a Category B Municipality is a local municipality and a Category C municipality is a district municipality. These municipalities are established by way of notice in a Provincial Gazette in terms of the Local Government : Municipal Structures Act, 117 of 1998 (and the Demarcation Board's demarcated area) and are categorised by the MEC for Local Government in each of the Provinces (RSA, 1998, p. 6). Section 229 of The Constitution of the Republic of South Africa, Act 108 of 1996, empowers a Municipality to "impose rates on property, surcharge on fees for services provided by or on behalf of the municipality, or other taxes, levies or duties". These rates are a critical source of revenue for municipalities to fulfil their obligations in terms of the Constitution and other legislation (RSA, 1996, p. 76). National legislation to give effect to these constitutional provisions was adopted in 2004 with the Local Government : Municipal Property Rates Act, 6 of 2004 (MPRA). In terms of sections 3-6 of the MPRA, a municipality must adopt a policy setting out, *inter alia*, the criteria to be applied in the levying of rates and applying exemptions and rebates, as well as the different categories of property and ownership while having consideration for effects of the rates burden on the poor and public benefit organisations. The promotion of local social and economic development and agricultural productivity all have to be considered. The income foregone depends on the policy implemented by the municipality.

Reduced revenue collection would impact on the level of services that a municipality would be able to deliver and would probably entail a larger allocation from national government to fund the shortfall in the municipal finances (RSA, 2018, p.6) The constrained resources within smaller municipalities do not always permit the development of a policy that will maximise income while having due regard for the indigent, unemployed, pensioners and other categories of vulnerable property owner. This study could therefore contribute to the development of an optimal policy for such smaller municipalities.

1.2 Focus and Aim of the Study

1. The focus of this study is to develop a Rates Policy that would generate optimal revenue while considering the interests of all stakeholders and which could be applied

to smaller local municipalities that do not have the requisite capacity to develop such a policy.

2. The study aims to do a comparison of various municipalities' rates policies in order to develop an optimal rates policy for KwaDukuza Municipality.

1.3 Objectives

The specific objectives of this study are as follows:

1. To identify the most appropriate categories of property in a valuation roll that will yield the greatest income to a local municipality;
2. To develop appropriate criteria for rebates and exemptions which will achieve the stated goals of the Local Government : Municipal Property Rates Act, 6 of 2004 while balancing the interests of all stakeholders; and
3. To determine the most appropriate rate randage to be applied to the various categories of properties in the roll.

1.4 Research Questions

The research questions to be answered are as follows:

4. What are the categories of property that will yield the greatest income?
5. What categories of owners should be considered for rebates and exemptions?
6. What rate randages will yield optimal income while minimising income foregone?

1.5 Methodology

The study will model a local municipality's valuation roll using its own and three other municipalities' rates policies to see which policy best fulfils the developmental objectives of local government without sacrificing unnecessary income.

1.6 Limitations of the study

The study relies on secondary data that is within the public domain and does not include the raw data which would have accurate information regarding the ages of landowners (pensioners' rebate applications) or the employment status of landowners

(indigent and unemployed). The study would therefore have to rely on Statistics South Africa's 2016 Community Survey data for the region.

1.7 Overview of Chapters

In Chapter Two a literature review will be undertaken to examine international property practices compared to local property rates. Chapter Three will discuss the research methodology and location of the study and will analyse the rates policies of those municipalities chosen as part of this study. Chapter Four will discuss the modelling of the policies and analyse the outcomes. Chapter Five will include discussion of the model outcomes and Chapter Six deliver the conclusions and recommendations resulting from the study.

1.8 Conclusion

In this chapter we looked at the founding legislation for municipalities and their right to levy a rate on property as a means of generating revenue. We highlighted the focus of the study and the research questions to be answered. We also discussed the study limitations and provided an overview of the chapters that will follow. In the next chapter we will briefly review the global situation in respect of property taxes.

2. CHAPTER TWO : LITERATURE REVIEW ON PROPERTY TAXES

2.1 Introduction

There is a developmental imperative imposed upon municipalities by section 153 of the Constitution of South Africa (RSA, 1996, p. 49). While being empowered to raise property taxes, there is also a duty to consider local needs and the welfare of their communities (de Visser, 2013). The considerable cost of providing services has to be counter-balanced with the need to:

1. provide an environment for economic development;
2. protect food security;
3. provide financial relief to those who are unemployed and indigent;
4. protect the vulnerable members of society such as child-headed households;
and
5. promote community participation (MPRA, 2004)

This chapter, under section 2.2 presents an overview of property rates in South Africa, section 2.3 discusses the stakeholders involved in local property rates and section 2.4 provides an international perspective on tax practices, given the unique constraints experienced by most countries. Section 2.5 concludes.

2.2 Land Tax Practices

“Rates” are defined as a local tax levied on property and go back to British Colonial times when rates were levied in the former British Cape Colony (McCluskey and Franzsen, 2001). Section 151 of the Constitution defines the status of municipalities with section 152 stating that the “objects of local government are –

- a. to provide democratic and accountable government for local communities;
- b. to ensure the provision of services to communities in a sustainable manner;
- c. to promote social and economic development;
- d. to promote a safe and healthy environment; and
- e. to encourage the involvement of communities and community organisations in the matters of local government” (RSA, 1996, p. 49).

Property rates are a tax levied by local government to fund, *inter alia*, the delivery of services to the communities that it serves.

The implementation of the Local Government : Property Rates Act, 6 of 2004 (MPRA) in July 2005 created a uniform approach to property rating in South Africa within a statutory framework that sought to address previous inequities whilst taking into account the rates burden on the poor. Market value is the prescribed basis of valuation, with market value being defined as “the amount the property would have realised if sold on the date of valuation in the open market by a willing seller to a willing buyer” (RSA, 2004, p. 30).

2.3 Stakeholders

The stakeholders in the successful levying of an equitable and sustainable property rates system are Government, both national and local, ratepayers and the community at large. The successful collection of this revenue is central to effective local government and the starting point would be a comprehensive property register with correct ownership details and all properties correctly listed, valued and categorised. Any deficiencies in the register would affect the quantum of rates collectable by a municipality. Reduced revenue collected would impact on the level of services that a municipality would be able to deliver and would probably entail a larger allocation from national government to fund the shortfall in the municipal finances. The Municipal Finance Management Act, 56 of 2003 (hereinafter referred to as the MFMA) and the Division of Revenue Act, 5 of 2012, were implemented to regulate the allocation of grants to municipalities and provide for the oversight by national government over the functions of local municipalities, thereby protecting the interests of all stakeholders.

The African National Congress (ANC), in their Land Reform Policy Discussion (ANC, 2012), resolved to support the immediate creation of a Valuer-General's office and land valuation service to oversee valuations for, *inter alia*, rating purposes and provide expert advice on all valuation matters to Government. To this effect, and to further the Constitutional imperative of land reform and land restitution, the Property Valuation Act, 17 of 2014 was promulgated and the Office of the Valuer-General was established. The Valuer-General will therefore also form part of this stakeholder group.

2.4 Property Taxes : An International Perspective

Property taxes are a feature of local government in many parts of the world. In the United Kingdom (hereinafter referred to as the UK), property taxes are referred to as “Rates” in Northern Ireland and “Council Tax” in England, Scotland and Wales (Plimmer et al., 1999). In England, Scotland and Wales a tax is levied on the value of domestic property (land and buildings) and on the occupants of the property and is imposed, administered collected and spent by the local authority (Plimmer et al., 1999). This tax is based on banded values where 8 broad bands of value are determined and each property is allocated to a band based on its perceived value. According to Plimmer et al (1999) this is a very regressive tax resulting in the lowest valued properties being taxed at the highest percentage. The tax on occupants is levied based on the number of adults living in a property, to a maximum of two adults. Where the property is only occupied by one person, the bill is effectively discounted by 25 percent. Students are also not considered to be “taxable adult occupants” and are not considered for the personal tax. Where there are no occupants, the owner is liable for Council Tax (Plimmer et al., 1999). Plimmer et al (1999) argue that this tax on occupiers encourages under-utilisation of property, as single adult occupiers would only pay half the tax and owners of holiday homes would not be liable for any occupier tax. It is further argued by the authors that if taxes were based on open market value rather than banded values, greater equity and taxpayer fairness would be achieved; alternatively additional bands would have to be added to the higher property value bands, together with more frequent revaluations, in order to achieve more equity in the present system (Plimmer et al., 1999). While most scholars in the field of public finance and assessing officers concur with the sentiment that property wealth is most justly and impartially decided by undertaking a full market value assessment, the system should ensure that the process correctly determines values so that residents are taxed fairly (Payton, 2012).

In Northern Ireland, the rate was based on a rental value for the 1976 General Revaluation (Plimmer et al., 1999). With this being the last revaluation, significant inequities between market value and rates developed over time (McCluskey et al., 2007). Since the mid-nineteenth and twentieth centuries, a marked decline in rental properties occurred with a corresponding growth in owner-occupied properties, which

local councils for the provision and maintenance of services and their infrastructure (Chan and Chen, 2011). The Australian Capital Territories (ACT) levy a tax on all property, which is referred to as a “general rate” and is similar to the rate imposed by local authorities (McLaren, 2014). However, with Australia facing an aging population, some form of relief is provided by way of a deferral of payment of the rates until a property is sold (McLaren, 2014). This is particularly useful where property prices have escalated in value over time (McLaren, 2014) and could provide an option in the South African context. In Taiwan, a property tax is levied by municipalities based on the value of the land. A separate house tax is levied on the value of the improvements, with the rate varying depending on the type of building (Chan and Chen, 2011).

In the United States of America (commonly referred to as the USA), property tax assessment and administration vary by state. Payton (2012) argues that more valuation error is methodically built into the valuation process under the non-market value model and concludes that less “systematic bias associated with multiple property and location characteristics” is evident in a market value standard (Payton, 2012, p. 587). Since the 1970s, three major tax limitation initiatives were California’s “Proposition 13” (1978) that limits taxes on all property, Florida’s (1992) “Save our Homes Amendment” that restricts assessed values on homestead properties and Massachusetts’ (1980) “Proposition 2^{1/2}” that limits property tax rates (Schiller, 2011). By 2007, 20 states had placed limitations on residential property taxes (Schiller, 2011). In 2010 a bill was passed in Georgia that required ratepayers be given access to that sales data used in assessing property values. This followed the real estate collapse in 2006 and the perception that the downward trend in value was not sufficiently considered in determining values (Sirmans and Sirmans, 2012). Property tax and expenditure limitations are applied in certain states to assist homeowners. These are referred to as “circuit breakers” and are applied in various ways to residential property, based on family income (Anderson, 2014).

Ihlanfeldt (2011) examines the impact of “boom and bust” cycles in real estate markets on local government budgets and how they deal with changes in their tax revenue. He does this by focusing on the changes in the per capita tax base to circumvent having to deal with the variable associations between market value and assessed value across different communities. Based on this research it would appear that increases

in millage rates offset the decline in market value. These increases are larger in counties than in cities, resulting in greater elasticity of property tax revenues in the cities (Ihlanfeldt, 2011). Millage is defined as “a rate of taxation expressed in mills per dollar” (Doubleday, 1989). In other words, it is a property tax rate stated in terms of tenths of cents in tax per dollar of property value. Vlaicu and Whalley (2011, as cited by Ihlanfeldt, 2011) found, using data on California cities, that changes in house prices have significant effects on revenues from property taxes. Ihlanfeldt (2011) was surprised by this finding as California’s Proposition 13 places restrictions on both the tax rate as well as the appreciation in assessed values. While hypothesizing that cities react to revenue bonanzas (both positive and negative) by changing non-property tax rates, Vlaicu and Whalley (2011) do not provide any evidence to support this (Ihlanfeldt, 2011). However, following the Great Recession in 2007, local authorities did suffer major financial declines as a consequence of declining market values, albeit following a significant time lag in assessed values (Cromwell and Ihlanfeldt, 2015). This study confirms that where a city’s tax base is eroded by decreasing market values, millage rates are increased and expenditure is cut; counties, due to their greater authority, increase mileage rates and decrease their expenditures to a greater extent (Cromwell and Ihlanfeldt, 2015).

In Denmark, the Copenhagen real estate market experienced a severe price bubble. During the 14 years prior to the peak in 2007, property prices increased by 25 percent a year. This could be explained in part by the deregulation of time-honoured mortgage lending practices and the more favourable taxation policies for owner-occupied homes (Muller et al., 2010). While a land tax is charged on all types of properties in Denmark and a service charge is levied on the value of buildings used for commercial purposes, the revenue from these two property taxes only accounts for 2.5% of total tax revenues (Muller et al., 2010). Historically, deemed rental income, from owner-occupied buildings, formed part of income and was taxed accordingly. In 2000, this was changed to a property value tax accounting for 1.4% of total tax revenue (Muller et al., 2010). In 2001, a tax freeze was placed on property values – while new values are estimated every two years, the 2001 value is used as the tax base. Land values are limited to an annual 6 percent increase in terms of this tax freeze. Muller et al (2010) are of the opinion that these tax freezes contributed in large measure to the price

bubble in Denmark as increasing taxes along with rising house prices would have had an inhibiting effect on residential property price increases.

In the Republic of Lithuania, commercial premises and land have had tax levied since 1990. However, residential property was basically exempted until 2008 when political leadership changed and new economic realities had to be faced: the global downturn and an equally sharp slump in the Lithuanian economy (Sulija, 2009). While resistance to the implementation of residential property tax is anticipated, the author argues that this tax revenue may extend the range of services rendered by local authorities which could increase property values in these locations (Sulija, 2009).

In neighbouring Latvia, property tax is based on “cadastral value” determined by their State Land Service utilising, *inter alia*, comparable sales and mass appraisal (Štucere and Mazūre, 2013). The power to determine the rate of tax is devolved upon local government by the state authority with effect from 2013, together with the administrative function of regulating and collecting this tax (Štucere and Mazūre, 2013, Puzule and Zubule, 2015). Rebates of up to 90% are applied to certain categories of owners (retired, low-income, indigent and disabled persons) and exemptions to certain types of property such as facilities used for medical, social, education, cultural, religious and public service infrastructural purposes (Štucere and Mazūre, 2013).

In Mexico, most municipalities utilise both land and building values for property taxes. While state congresses approve the value tables and rates, different states and municipalities play varying parts in the assessment and revenue collection processes (Pěna et al., 2012). This is in part due to the fact that there is no standardised legislation governing this function (Pěna et al., 2012). Geographic Information Systems (GIS) and Computer-Aided Mass Appraisal (CAMA) were combined by the authors in a project to develop a planning support system for the estimation of property values in Ciudad Juarez, Mexico (Pěna et al., 2012). While there were insufficient records (updated cadastre and sales data), a database was constructed utilising classified advertisements in local newspapers: this information related to asking price, accommodation offered and location was extracted. This was linked to the property using a centroid in the GIS (geocoding). While the authors believe that the model developed is a useful tool in property valuation, the weakness was the absence of

sales data. As bargaining over the price of goods is part of Mexican culture, the authors were unable to establish a rule of thumb adjustment to the asking price to arrive at the selling price. This shortcoming in the model opens an interesting area for further research (Pěna et al., 2012).

In Tanzania, local government has been given the authority to levy a property tax. However, in many instances, these municipalities lack the requisite ability and competence to administer this tax. They lack the resources to continue to develop and value the rolls that they presently have, due to a lack of funding and human resources (McCluskey & Franzsen, 2005). With only 28 valuers employed by municipalities in 2002, McCluskey and Franzsen (2005) recommend that a tax basis and method of assessment that can be effectively implemented, given the constraints in local government, as well as a valuation system that can be maintained in-house, is essential.

In South Africa, with the incorporation of all land parcels throughout the country into local municipalities, the challenge has been to value land that was previously not rated: agricultural land, tribal land and formerly black township land (Bell & Bowman, 2003). With the implementation of the MPRA, all property is required to be valued based on market value. This provides for fairness and equity, with those deserving of relief receiving this through rebates, reductions and exemptions. Any reductions must be determined in accordance with a municipality's rates policy with the rates foregone as a result of these reductions being clearly stated in its budget and rates policy documents (Franzsen, 2009). Public Service Infrastructure (PSI) presents its own challenges as it often traverses municipal boundaries (roads, railways and power line infrastructure). While municipalities can elect whether to rate PSI or not, these properties must still be included in its property register (Franzsen, 2009).

However, municipalities differ significantly in terms of size and capacity (Daud et al., 2013). Whereas section 32 (1)(b) of the MPRA provides for the validity of a roll for a fixed period (four years for a metro and five years for a local municipality), in terms of section 32 (2) local municipalities can apply to the MEC for a further extension of two years to the validity of the roll, in particular where finances do not permit a revaluation after the initial period has expired. As in other international jurisdictions, South Africa

has adopted the provision of a policy in applying property rates, together with exemptions and rebates, where justified, for financial relief from the rates burden to those that qualify in terms of set criteria, which will be discussed further in Chapter Three.

Presently, KwaDukuza Municipality has no modelling tool to determine their annual rate randages and rates policy. The researcher has confirmed that their approach is to consider their budgeted expenses and then, in excel, play with various scenarios in respect of proposed randages, rates rebates, exemptions and reductions to arrive at the revenue required to balance their budget. This is time consuming and could better be undertaken with a tool to model the income required from rates. The KwaZulu-Natal Department of Co-operative Governance and Traditional Affairs has assisted the smaller, lesser resourced municipalities to undertake this exercise, also using excel.

2.5 Conclusion

In this chapter we have taken a broad overview of local property taxes and international practices. It is interesting to note the different methods of assessing property values in the international arena: some countries use value bands and tax the occupants, while others use outdated rental values. It is apparent from empirical research that a system linked to exchange transactions in an open market yields the most equitable values as a basis for property taxation. Where property transactions are not based on an informed market, or insufficient property ownership and cadastral data is available, this task becomes more difficult.

However, local government budgets determine the revenue required from property taxes. When property markets decline, the rate randage, or millage rate, is increased to provide such revenue to fund budgeted expenditure. This must always be balanced against the interests and well-being of the community so serviced. Once a property register has been compiled ongoing maintenance of the register is required to update ownership and prices achieved where property exchanges hands. This pre-supposes the availability of trained human and financial resources to do so. Where these resources are lacking, the development of tools to assist in these functions becomes essential to sustain the property tax base.

In the next chapter, the legislative requirements for a local municipality's rates policy are discussed. We discuss the research methodology adopted and the approach taken in the design of this study. We also analyse the various rates policies that form the basis of our study.

3. CHAPTER THREE : RESEARCH METHODOLOGY

3.1 Introduction

This study endeavours to establish a technique to develop an optimal rates policy for municipalities that are under-resourced. We have based our study on KwaDukuza Municipality and have selected three other municipalities to model their policies on KwaDukuza Municipality's valuation roll. In this chapter we will discuss the approach taken, the research design and the policy and adopted budget for KwaDukuza Municipality, as well as the selected policies of the three other municipalities, in preparation for the financial modelling.

This chapter is structured as follows:

Section 3.2 examines the establishment and responsibilities of municipalities as enshrined in the Constitution and other legislation in South Africa. Section 3.3 discusses the research design of this study and the financial modelling tool employed in the research. Section 3.4 addresses the location and demographics of the case study. Due to the deficiencies in the secondary data certain assumptions need to be made for the financial modelling to be undertaken – these are discussed under section 3.4.1 of this chapter. Under section 3.5 the rates policies of the three municipalities chosen for the study, eThekweni, Umdoni and Ray Nkonyeni Municipalities, are analysed and compared to KwaDukuza Municipality, the case study municipality. Section 3.6 of the chapter looks at the approved budget for KwaDukuza Municipality indicating the proposed revenue and income forgone for the current financial year. Section 3.7 discusses the validity and reliability of the data, section 3.8 speaks to Ethical Clearance and section 3.9 concludes.

3.2 Legislative imperatives of a Rates Policy

The Local Government : Municipal Demarcation Act, 27 of 1998 provides for the Demarcation Board to determine municipal boundaries in terms of section 21 and must be not be in conflict with any legislation enacted in terms of Chapter 7 of the Constitution. The Board must establish an area that would empower the municipality

to achieve its constitutional responsibilities by providing for, *inter alia*, “a tax base as inclusive as possible of users of municipal services in the municipality” (RSA,1998, p.18).

In terms of the Local Government : Municipal Finance Management Act, 56 of 2003, a municipality must approve an annual budget for each financial year which includes “budget-related policies” consisting of a tariffs policy (which a municipality must adopt in terms of section 74 of the Local Government : Municipal Systems Act, 32 of 2000 as amended), a rates policy (adopted in term so the Local Government : Municipal Property Rates Act, 6 of 2004) and a credit control and debt collection policy (and adopted in terms of section 96 of the Local Government : Municipal Systems Act, 32 of 2000).

The Local Government : Municipal Property Rates Act 6 of 2004 empowers a municipality to levy rates on property located within the boundaries of a municipality. The act further prescribes the contents of a rates policy to be adopted, in terms of section 3:

“A rates policy must-

- (a) treat persons liable for rates equitably;
- (b) determine the criteria to be applied by the municipality if it-
 - (i) levies different rates for different categories of properties determined in terms of section 8;
 - (ii) exempts a specific category of owners of properties, or the owners of a specific category of properties, from payment of a rate on their property;
 - (iii) grants to a specific category of owners of properties, or to the owners of a specific category of properties, a rebate on or a reduction in the rate payable in respect of their properties; or
 - (iv) increases or decreases rates;
- (c) determine, or provide criteria for the determination of –

- (i) categories of properties for the purpose of levying different rates as contemplated in paragraph (b) (i); and
 - (ii) categories of owners of properties, or categories of properties, for the purpose of granting exemptions, rebates and reductions as contemplated in paragraph (b) (ii) or (iii);
- (d) determine how the municipality's powers in terms of section 9 (1) must be exercised in relation to properties used for multiple purposes;
- (e) identify and provide reasons for –
- (i) exemptions;
 - (ii) rebates; and
 - (iii) reductions;
- (f) take into account the effect of rates on the poor and include appropriate measures to alleviate the rates burden on them;
- (g) take into account the effect of rates on organisations conducting specified public benefit activities and registered in terms of the Income Tax Act for tax exemptions in terms of those activities, in case of property owned and used by such organisations for those activities;
- (h) take into account the effects of rates on public service infrastructure;
- (i) allow the municipality to promote local, social and economic development;
- (j) identify, on a basis as may be prescribed, all rateable properties in the municipality that are not rated in terms of section 7 (2) (a); and
- (k) in respect of agricultural property, give effect to the regulations promulgated in terms of section 19 (1) (b)".

The Act further states that no owner may be granted relief on an individual basis, except for as provided in a municipality's rates policy, which has to be reviewed annually (MPRA, 2004). In terms of section 4 of the MPRA, prior to the adoption of

the rates policy, a municipality must engage in community participation, inviting comments and representations which have to be considered by council.

3.3 Research Design

The research methodology adopted is a descriptive quantitative approach based on a case study. A case study refers to the investigation of an actual present-day “phenomenon... in a bounded context” (Miles and Huberman, 1994, as cited in Cresswell, et. al., 2017). In this instance, it is bounded by time and place. Descriptive statistics encapsulate a number of ways to arrange and express the data in a relevant way (Field, 2013, as cited in Cresswell, et. al., 2017). All the data used in this study are secondary data within the public domain and ethical clearance was obtained on this basis.

The KwaDukuza Municipality’s valuation roll forms the basis of the financial modelling required to be undertaken. The valuation roll for KwaDukuza Municipality was extended with additional columns, namely “LANDREF”, “INDIGENT”, “PENSION”, “VACANT” and “LUSAGE” added to the roll. “LANDREF” refers to Land Reform Beneficiary and “LUSAGE” refers to Land Usage. The other column headings are self-explanatory. Thereafter, the roll was sorted and properties flagged based on the Rates Policy for KwaDukuza Municipality. Whilst the model looks at Land Reform Beneficiaries to phase the rates in over a period as is required by the MPRA, this information was not available and has been omitted from the study. As the raw valuation roll data was not available, certain assumptions had to be made for the financial modelling undertaken. These are further discussed under section 3.4.1. The flags were adjusted for each of the other municipalities, being eThekweni, Umdoni and Ray Nkonyeni Municipalities based on their rates policies and before modelling the data.

An Access database application (developed to assist Umzimkulu Municipality to establish a rates policy and rate randage) has been used as a tool for the financial modelling. This tool is further discussed under section 4.2.

The dependent variable is the property rates income generated, while the independent variables are the property category based on use (LUSAGE), the property value, and the vacant and indigent flags in the valuation roll. A further independent variable is

the base rate, which is the rate randage proposed for residential property by the municipality in terms of its rates policy.

The model output data has been collated in tables to assist in the analyses of this data.

3.4 Location of the Case Study : KwaDukuza Municipality

The location of the study is KwaDukuza Municipality which is a Category B (local) municipality and falls under the Illembe District Municipality, a Category C municipality (RSA, 1998, p6). KwaDukuza is located along the coast of KwaZulu-Natal and stretches from the uThongathi River in the south to the Zinkwazi River in the north and inland for approximately 14 km. It is advantageously placed between two port cities: Durban and Richards Bay. The surrounding municipalities are eThekweni Metropolitan Municipality to the south; Ndwedwe and Maphumulo municipalities to the west and Mandeni Municipality to the north.



FIGURE 3. 1 RELATIVE LOCATION OF KWADUKUZA MUNICIPALITY

Source: <https://municipalities.co.za/map/1070/kwadukuza-local-municipality> (Accessed 2019/05/17)

In terms of the Statistics South Africa's 2011 Population Census, KwaDukuza had a total population of 231,187 people. By 2016 this had grown to 276,719 people (StatsSA, 2016). Table 3.1 shows the statistics for 2011 and 2016 with the number of persons represented by the percentage in each year .

TABLE 3.1 KWADUKUZA LOCAL MUNICIPALITY : DEMOGRAPHIC INFORMATION

Demographic Information				
	2016	Number	2011	Number
Population	276,719		231,187	
Age Structure				
Population under 15	27.70%	76,651	29.00%	67,044
Population 15 to 64	67.40%	186,509	66.70%	154,202
Population over 65	4.90%	13,559	4.30%	9,941
Dependency Ratio				
Per 100 (15-64)	48.4	90,270	50	77,101
Sex Ratio				
Males per 100 females	97.5		97.5	
Population Growth				
Per annum	4.09%		n/a	
Labour Market				
Unemployment rate (official)	n/a		25.00%	
Youth unemployment rate (official) 15-34	n/a		30.80%	
Education (aged 20 +)				
No schooling	6.80%		9.80%	
Matric	36.40%		28.40%	
Higher education	8.50%		8.60%	
Household Dynamics				
Households	91,284		70,284	
Average household size	3		3.2	
Female headed households	39.10%	35,692	36.70%	25,794
Formal dwellings	82.10%	74,944	80.90%	56,860
Housing owned	62.90%	57,418	41.50%	29,168
Household Services				
Flush toilet connected to sewerage	30.40%	27,750	33.70%	23,686
Weekly refuse removal	55.60%	50,754	60.70%	42,662
Piped water inside dwelling	28.50%	26,016	33.60%	23,615
Electricity for lighting	94.60%	86,355	90.20%	63,396

Source: Author compiled using information from Municipalities of South Africa (Yes Media, 2019)

Due to the confidential nature of the information contained in their Indigent and Old Age registers, we will make assumptions based on the 2016 demographics for the

KwaDukuza Municipality as detailed in the table above for the financial modelling of property rates and the rebates and exemptions for those qualifying property owners.

3.4.1 Assumptions

3.4.1.1 Unemployed

The 15 to 64 year olds (186,509) less their dependents (90,270), total 96,239 people of which 26% will be assumed to be unemployed. This equates to 25,022 people. Taking the 6,217 persons aged 60 to 64 year olds into consideration (see Table 3.3 KwaDukuza Pensioner Demographics), this leaves only 18,805 assumed to be economically active. The number of households affected by unemployment, based on the average size of 3 people per household, is 6,268. However, this is just over half (53%) of the number of households qualifying for exemption from property rates in terms of KwaDukuza Municipality's Rates Policy (KwaDukuza Municipality, 2018b).

3.4.1.2 Indigent

The following figures have been extracted from Statistics South Africa's Community Survey 2016 Statistical Release (StatsSA, 2016):

TABLE 3. 2 KWADUKUZA MUNICIPALITY : POVERTY HEADCOUNT

Province/District/Local municipality	Municipal sub-category	2015 Grants and subsidies received as a % of Total income	Poverty			
			2011		2016	
			Poverty headcount	Intensity of poverty	Poverty headcount	Intensity of poverty
592 KZN292: KwaDukuza	B2	15,6%	8,6%	41,2%	7,9%	41,6%

Note: B2 category refers to local municipalities with a large town as core (Municipal Infrastructure Investment Framework)

Source: Author compiled using information from Stats SA Community Survey 2016, p12

“Indigent” is defined in the KwaDukuza Municipality’s Indigent Policy to mean “a person / household who is lacking financial affordability to pay for necessities of life such as sufficient refuse removal, basic electricity, health care, housing, food and clothing” (KwaDukuza Municipality, 2018a).

Whilst the poverty headcount indicates 7.9% of the population of 276,719 in KwaDukuza (21,860 people), the valuation roll indicates 11,652 improved residential properties are valued at R130,000 or less and not owned by the Municipality.

We have considered these to be indigent for purposes of the rates modelling as the purpose of the Indigent Policy is to ensure:

“(a) The provision of basic services to the community in a sustainable manner, within the financial and administrative capacity of the Council; and

(b) To provide procedures and guidelines for the subsidization of basic service charges to its indigent households, using the Council’s budgetary provisions received from Central Government, augmented from time to time by Council’s own revenues, according to prescribed policy guidelines” (KwaDukuza Municipality, 2018a).

These residential properties in the database that are valued at R130,000 and less have been flagged as Indigent to facilitate the rates modelling.

3.4.1.3 Pensioners

KwaDukuza Municipality’s draft Integrated Development Plan for 2019/2020 as submitted to the Department of Co-operative Governance and Land Reform indicates the following statistics extracted from the 2016 Community Survey undertaken by Statistics South Africa:

TABLE 3.3 KWADUKUZA MUNICIPALITY : BREAKDOWN OF PERSONS AGED 60YRS TO 85YRS PLUS

Age Group	Male	Female	Ratio Male to Female
60-64	2486	3731	
65-69	2584	3171	
70-74	1432	2385	
75-79	775	1522	
80-84	441	681	
85+	206	479	
Sub-total	7924	11969	
TOTAL		19893	1 : 1.51

Source : Stats SA Community Survey, 2016, cited in KwaDukuza Municipality's draft Integrated Development Plan (2019, p.98)

The Male to Female ratio is approximately 1 : 1.51. However, without access to the records indicating which properties enjoy a pensioners' rebate, we will assume that of the population of KwaDukuza (276,719) 7.2% qualifies for the pensioners' rebate on Residential property. However, with a total population of 19,893 elderly persons and a ratio of male to females of 1:1.51, we will assume that this constitutes only about 12,000 households or dwellings. This, as a percentage of the total number of residential dwellings is approximately 4.3% of the total as shown in Table 3.4.

TABLE 3.4 KWADUKUZA MUNICIPALITY : CALCULATION OF NUMBER OF DWELLINGS AS A PERCENTAGE OF RESIDENTIAL VALUE

Age Group	Dwellings	% of Res Value
60-64	3800	1.36167%
65-75	5500	1.9708%
>75	2700	0.96750%
Totals	12000	4.30000%

Source: Author compiled from Stats SA Community Survey, 2016, cited in KwaDukuza Municipality's draft Integrated Development Plan (2019, p.98)

3.5 Analysis of Rates Policies for Ray Nkonyeni, Umdoni and eThekwini Municipalities

The eThekwini, Umdoni and Ray Nkonyeni Municipalities have been selected as part of the study as they are all coastal towns with similar properties and Ingonyama Trust land within their municipal boundaries. The dwellings on this trust land are usually

exempt from property tax with commercial entities digitised and rated accordingly. However, they do have differing demographics, population sizes and economies.

A comparison of the Rates Policies for the KwaDukuza Municipality and the other municipalities selected for this study has been undertaken and is tabled below:

TABLE 3. 5 CATEGORIES OF PROPERTY IN RATES POLICIES

Municipality	Residential	Industrial	Business & Commercial (inc Privately run institutions)	Agriculture				Municipal Properties	Properties owned by an organ of state and used for public service	PSI	Vacant Land	Multiple Use
				Farms Used for Agriculture	Farms used for Residential	Farms used for Commercial	Farms used for any other purposes					
KwaDukuza	x	x	x	x				x	x	x	x	Differential Rating / Dominant Use
eThekwini	x	x	x	x				x	x	x	x	Differential Rating
Umdoni	x	x	x	x	x	x	x	x	x	x	x	Dominant Use
Ray Nkonyeni	x	x	x	x				x	x	x	x	Differential Rating

Categories of Properties (cont)

Municipality	Outside Urban Development Line	Unauthorised or Illegal development or use, and Abandoned Property or Building;	Rateable Rural	Rural Residential	Land Reform	Informal Settlements	Protected Areas	Places of Worship	Smallholdings used for Agric purposes	Smallholdings used for Residential purposes	Smallholdings used for any other purpose	Mining properties	Special Purposes	Public Benefit Organisations	ST garages /storerooms /carports	Communal Land
KwaDukuza								x								
eThekwini	x	x	x	x												
Umdoni					x	x	x	x	x	x	x	x				
Ray Nkonyeni								x				x	x	x	x	x

Source: Author compiled using information from KwaDukuza, eThekwini, Umdoni and Ray Nkonyeni Municipality Rates Policies (2018b, 2018)

While section 8 (2) of the MPRA (2004) provides for the categories of property that should be in a valuation roll, if existing within the Municipality, Section 8 (3) makes provision for the inclusion of additional categories upon application to the Minister in terms of section 8(4) of the Act. The four municipalities have certain categories in common, namely, Residential, Agricultural, Industrial, Business and Commercial, Vacant, Municipal, Public Service Infrastructure and properties owned by Public Service Organisations, while having other categories not included in section 8. These constitute variables that are not all contained in the rates modelling tool.

The Rates Policies (2018), indicating the Impermissible rates in terms of the MPRA (2004), together with further Rebates and Exemptions is tabled below:

TABLE 3. 6 COMPARISON OF RATES POLICIES

Municipality	Impermissible Rates	Further Exemptions- Residential	PSI	Rebates																
				General across all categories of property	Developers' Rebate / Residential	Developers' Rebate / Commercial & Industrial	Vacant Land / Indigent owned	Schools not for Gain	Excluded Services Rebate / Med - High Density Developments	PSI	Agricultural	Life Rights / Retirement	Disabled	Pensioners < 65yrs	Pensioners 65-75yrs	Pensioners > 75yrs	Newly Rateable Properties			
KwaDukuza	15000	85000	30%	6%	100% year 1 100% year 2 90% year 3 80% year 4 70% year 5 60% year 6 50% year 7	100% year 1 90% year 2 80% year 3 70% year 4 60% year 5	50000			15%	80%	50%				25%	30%	35%	75% year 1 50% year 2 25% year 3	
eThekweni	15000	> 230000 105000	30%				30000 Outside Urban Dev Line	50%					25%	4364	4364	4364	4364		75% year 1 50% year 2 25% year 3	
Umdoni	15000		30%		83.33% year 1 66.67% year 2 50% year 3 33.33% year 4 16.67% year 5		15000			4%				370000	370000	370000	370000		75% year 1 50% year 2 25% year 3	
Ray Nkonyeni	15000	85000	30%				50000												Income = 2 state pensions - 75% Income = 4 state pensions - 50% Income = 6 state pensions - 25%	75% year 1 50% year 2 25% year 3

Municipality	Exemptions							
	Protected Areas / Nature Reserves	Child-headed Households	Places of Worship	PBOs	Land Reform Beneficiaries	State Land	Residential	Indigents
KwaDukuza	100%	100%	100%	100%	100%	100%	< 130,000 100%	100%
eThekwini		4364		100%	100%		>230000	
Umdoni		370000			100%			370000
Ray Nkonyeni	100%	100%	100%		100%		< 320000 100%	

Source: Author compiled using the Rates Policies of KwaDukuza, eThekwini, Umdoni and Ray Nkonyeni Municipalities (2018b, 2018)

These rebates and exemptions, together with the Impermissible rates and rate randages in terms of the comparable policies below, will form the basis of the rates modelling on KwaDukuza Municipality's valuation roll:

TABLE 3. 7 COMPARISON OF RATE RANDAGES

Municipality	Impermissible Rates			Rate Randages									
	Residential	PSI	Further Exemptions	Residential	Residential Used for Commercial Purposes	Guesthouses with > 6 rooms	Industrial	Mining	Commercial	Agriculture	Special Purpose	State Owned	ST Garages / Storerooms / Carports
KwaDukuza	15000	30%	85000	0.00741	0.00812	0.02074	0.02292	-	0.02292	0.00186	-	0.02292	-
eThekwini	15000	30%	105000	0.011191	-	-	0.032748	-	0.025375	0.002798	-	-	-
Umdoni	15000	30%	60000	0.00994	-	-	0.01330	0.01330	0.0133	0.00249	-	Usage	-
Ray Nkonyeni	15000	30%	85000	0.010787	-	-	0.018338	0.021574	0.018338	0.002696	0.005394	0.017465	0.010787

Municipality	ST Garages / Storerooms / Carports	Communal Land	Municipal	Place of Worship	PSI	Protected Areas	PBO	Multiple Use / Dominant Use	Vacant	Urban Development Line	Rural Residential	Illegal Use	Indigent <130000	Land Reform Beneficiaries - 1st 10 years
KwaDukuza	-	-	Exempt	Exempt	0.00186	Exempt	0.02292	M	0.02292	-	-	-	Exempt	Exempt
eThekwini	-	-	Exempt	-	0.002798	Exempt	Exempt	M	0.050176	0.016558	1.11191	0.078337	-	Exempt
Umdoni	-	-	Exempt	Exempt	0.00249	Exempt	Exempt	D	0.02503	-	-	-	-	Exempt
Ray Nkonyeni	0.010787	0.001078	Exempt	-	0.002696	-	0.002696	M	0.21574	-	-	-	-	Exempt

Source: Author compiled using the Rates Policies of KwaDukuza, eThekwini, Umdoni and Ray Nkonyeni Municipalities (2018c, 2018d, 2018)

The rate randages, further exemptions and rebates extracted from the Rates Policies in the table above clearly indicate the differences. These form part of the independent variables in the model and will have an impact on the dependent variable.

3.6 Approved budget for KwaDukuza Municipality

At KwaDukuza Municipality's special council meeting held on the 31 May 2018, the final budget 2018/2019 Medium Term Revenue Expenditure Framework was presented by the Business Unit and approved (KwaDukuza Municipality, 2018). The projected rates revenue together with the revenue forgone in the various categories of property was presented as set out below:

TABLE 3. 8 PROPOSED RATES REVENUE AND REVENUE FORGONE

Function	Segment Description	2019 Final Budget
FAssessment Rates (Dept 10)	NV Assessment Rates SRA Expenditure 0102060972	10,000,000.00
FAssessment Rates (Dept 10)	Assessment Rates Special Rating Area (01000140)	-10,000,000.00
FAssessment Rates (Dept 10)	Assessment Rates Agricultural Property	-6,448,442.00
FAssessment Rates (Dept 10)	Assessment Rates Rev for Agricultural Property 010260971	3,417,682.00
FAssessment Rates (Dept 10)	Assessment Rates Business Commercial Property	-128,884,569.00
FAssessment Rates (Dept 10)	Assessment Rates Rev for Business Commercial Prop 010260971	10,001,920.00
FAssessment Rates (Dept 10)	Assessment Rates Municipal Properties	-13,207,873.00
FAssessment Rates (Dept 10)	Assessment Rates Rev for Municipal Properties 010260971	13,207,873.00
FAssessment Rates (Dept 10)	Assessment Rates National Monument Properties	-14,813.00
FAssessment Rates (Dept 10)	Assessment Rates Rev for National Monument Prop 010260971	14,813.00
FAssessment Rates (Dept 10)	Assessment Rates Public Benefit Organisations	-3,784,463.00
FAssessment Rates (Dept 10)	Assessment Rates Rev for PBOs 010260971	3,784,463.00
FAssessment Rates (Dept 10)	Assessment Rates Public Service Infrastructure Properties	-2,917,970.00
FAssessment Rates (Dept 10)	Assessment Rates Rev for Pub Serv Infra Props 010260971	1,268,551.00
FAssessment Rates (Dept 10)	Assessment Rates Residential Properties Developed	-259,061,718.00
FAssessment Rates (Dept 10)	Assessment Rates Rev for Res Prop Developed 010260971	36,616,044.00
FAssessment Rates (Dept 10)	Assessment Rates Residential Properties Vacant Land	-81,978,441.00
FAssessment Rates (Dept 10)	Assessment Rates Rev for Vacant Land 010260971	13,501,404.00
FAssessment Rates (Dept 10)	Assessment Rates Land Assistance Act Restitution of Land	-8,591,832.00
FAssessment Rates (Dept 10)	Assessment Rates Rev for Rest Red Prop 010260971	8,591,832.00
FAssessment Rates (Dept 10)	Assessment Rates State Owned Properties	-6,707,720.00
		-421,193,259.00

Source: KwaDukuza Municipality's Medium Term Revenue Expenditure Framework, 2018, p.31

However, whilst the rates policy provides for State Owned Properties to be rated, there are no properties designated as such in the valuation roll. The amount shown as

revenue from State Owned Properties in the budget is also not apparent from the valuation roll.

Further, there is a discrepancy in the rates income disclosed as part of the approved budget. In the final approved operating budget, the Rates Revenue is indicated as being R430,791,000 for the 2018/2019 budget (KwaDukuza Municipality, 2018, p. 30). However, Table 3.8 indicates net revenue as R421, 193,259. This amounts to a variance of R9,597,741 in the budgeted income. We will use the income of R430,791,000 as the rates income for the case study.

It must also be noted that there has been a 4th and 5th supplementary valuation since January 2019 and the values and numbers that the proposed budget was based on no longer exist in their original form.

3.7 Validity and Reliability of Data

Validity may be defined as the degree to which a tool calculates what is supposed to be calculated (Cresswell et al., 2016). A hallmark of good research design is both internal and external validity. While this applies to experimental research, and this study does not involve an experiment, the principles of rigour may still be applied. Internal validity refers to the strictness with which the researcher has implemented the research design (control over extraneous or confounding variables and careful consideration of the data required for purposes of the modelling) (Cresswell et al., 2016). External validity refers to the extent to which the outcome can be applied to the population (Cresswell et al., 2016).

Reliability is considered to be the degree of consistency of a tool ensuring the result is replicable (Cresswell et al., 2016). The data utilised in this study is secondary data which is in the public domain. A valuation roll is always a work in progress and, while the date of valuation is fixed, it is continually being updated with new subdivisions or consolidations, completed buildings and new townships and developments. It is also compiled by a third party consultant and to this extent, there is no guarantee that the information is one hundred percent accurate. However, as the same valuation roll was modelled (based on the different rates policies), the model outputs should be

consistent. The modelling tool output was reconciled to the valuation roll and was found to be accurate.

3.8 Ethical Clearance

As all data was secondary and within the public domain and no confidential information was gathered, no gatekeepers' consents were required from KwaDukuza Municipality.

Ethical Clearance was applied for through and received from the Human and Social Sciences Research Ethics Committee and is attached at Appendix 1.

3.9 Conclusion

In this chapter, the approach to the study was discussed and the Rates Policies for eThekweni, Umdoni and Ray Nkonyeni Municipalities which will form the basis of the comparison for this case study located in KwaDukuza Municipality were analysed. Assumptions were made based on the demographics for KwaDukuza Municipality from Stats SA's Community Survey undertaken in 2016. This was necessitated as a consequence of the confidential nature of the municipality's registers for Indigent persons and Pensioners. In the next chapter, KwaDukuza Municipality's valuation roll will be modelled using the Rates Policies for the subject municipality as well as the comparable municipalities to determine the most appropriate outcome in respect of Revenue. The demographics for each of the selected municipalities will be considered and assumptions will be made based on Stats SA's data in a similar fashion to that undertaken for KwaDukuza Municipality. All the model results will be presented.

4. CHAPTER FOUR : MODELLING OF RATES POLICIES : A PRESENTATION OF RESULTS

4.1 Introduction

The purpose of this chapter is to report on a modelling tool that was developed in Access to assist Umzimkulu Municipality in the drafting of their rates policy and the determining of their rate randages. This model can also assist in determining appropriate randages based on the income required by a municipality and their proposed policy. This tool will model, based on KwaDukuza Municipality's valuation roll, the policies of KwaDukuza Municipality, eThekweni Municipality, Umdoni Municipality and Ray Nkonyeni Municipality.

4.2 Overview

The independent variables, *viz*, the rate randages, exemptions and rebates are all captured from the Rates Policies into the modelling tool. There are five tabs on the Access modelling tool: "Category Base Rate and Weighting", "Exemptions", "Rebates", "Summary Report" and "Impermissible" tabs. The base rate is captured together with the increase allocated to the various categories of property (weighting) on the first tab. The various exemptions relating to statutory provisions in terms of the MPRA as well as any additional amounts are captured into the model on the "Exemptions" tab. The "Rebates" tab is for the capture of both statutory and discretionary rebates considered by the municipality in terms of their proposed rates policy. This then creates a scenario to be modelled. Each scenario is then loaded into the modelling tool and run, i.e. calculated, individually. The model will deduct the exemptions, rebates and reduction to get to a rateable value to which the base rate for residential property and the weighted rate for the other rates categories will be applied. The results are presented in two tables: "Summary Report" and "Impermissible". The first table, Summary Report, gives the category of property, the number of these properties in the roll ("count"), the total value of the category of property, the median value ("average value"), the total rates before any exemptions and rebates, total exemptions per category, total rebates per category, and the total rates after rebates and exemptions per category ("dependent variable"). The second table, Impermissible, provides the results of the calculation of Impermissible Rates (first and second) which are usually provided for in the Act (MPRA, 6 of 2004) for

residential (first R15,000 of the value of residential property) and public service infrastructure properties (the first 30% of the value) and Reductions (rebates) which are discretionary and provided for in a rates policy.

The categories of property in the modelling tool include: Residential Vacant, Industrial Vacant, Commercial Vacant, Industrial, Commercial, State owned properties, State Trust Land, Municipal Properties, Protected Areas, Public Service Infrastructure, Places of Worship, Farms used for various purposes, Formal and Informal Settlements, Communal land, Land Restitution properties, Properties subject to Communal Property Associations, Properties on which National Monuments are proclaimed, Properties owned by Public Benefit Organisations and Other.

The exemptions provided for in the model relate to properties used for Housing purposes (rands), properties used for Protected and Environmentally sensitive areas (percentage), Land Reform Beneficiaries (percentage), Places of Worship (percentage), Indigent Person (percentage), Public Benefit Organisation (percentage) and Municipal owned (percentage).

The rebates provided for in the model include percentages for Newly Rateable Property, Public Service Infrastructure, State Properties, Commercial Properties, Industrial Properties, Recipients of old age, pension and disability grants where the income is less than R 24,000 and the value of the property less than R 50,000 and Pensioner with total income less than R 75000.

Whilst the categories are not exhaustive, they were included in the model prior to 2014 where the MPRA (2004) was amended to restrict the categories of property as discussed in Chapter Five. This chapter under section 4.3 presents the model outputs for KwaDukuza Municipality, based on their rates policy. Section 4.4 discusses the application of eThekweni Municipality's rates policy to KwaDukuza Municipality's valuation roll and presents the model outputs. Section 4.5 presents the model outputs from the application of Umdoni Municipality's rates policy to KwaDukuza Municipality's valuation roll and section 4.6 presents the results from applying Ray Nkonyeni Municipality's rates policy. Section 4.7 concludes this chapter.

4.3 Modelling of KwaDukuza Municipality's policy

The model has produced the report for KwaDukuza Municipality (see Table 4.1)

TABLE 4. 1 TOTAL RATES INCOME AFTER REBATES AND EXEMPTIONS – KWADUKUZA MUNICIPALITY RATES POLICY

Category	Count	Total Value	Average Value	Total Rates Before Rebates and Exemptions	Total Exemptions	Total Rebates	Total Rates After Rebates and Exemptions
AGRICULTURE	2116	R4,444,866,000	R2,100,598	R8,234,114	R14,633	R0	R8,219,481
COMMERCIAL	2013	R6,134,240,000	R3,047,312	R140,600,535	R0	R8,436,032	R132,164,503
INDUSTRIAL	418	R660,371,000	R1,579,835	R15,136,107	R0	R908,166	R14,227,941
MUNICIPAL	333	R114,355,000	R343,408	R2,621,087	R2,621,087	R0	R0
NATIONAL MONUMENTS	1	R19,000	R19,000	R0	R0	R0	R0
PARKING	19	R4,261,000	R224,263	R0	R0	R0	R0
PLACE OF WORSHIP	66	R78,980,000	R1,196,667	R1,810,270	R1,810,270	R0	R0
PRIVATE OPEN SPACE	2	R0	R0	R0	R0	R0	R0
PROTECTED AREA	275	R20,936,000	R76,131	R0	R0	R0	R0
PUBLIC SERVICE INFRASTRUCTURE	512	R3,214,303,000	R6,277,936	R5,954,496	R0	R4,763,597	R1,190,899
RESIDENTIAL	37718	R43,108,732,500	R1,142,922	R375,823,902	R23,976,567	R0	R351,847,335
ROAD	284	R1,026,000	R3,613	R0	R0	R0	R0
WORSHIP	5	R1,290,000	R258,000	R0	R0	R0	R0
TOTALS	43762	R57,783,379,500		R550,180,511	R28,422,556	R14,107,796	R507,650,160

Source : Rates Modelling Tool based on KwaDukuza Municipality Rates Policy (2018b)

There are 43,762 properties in KwaDukuza Municipality's valuation roll. The total value of all properties, before exemptions and rebates is R57,783,379,500. This value will remain constant regardless of the "scenario" being run. The total rates before rebates and exemptions is shown per category of property, with the total exemptions and total rebates listed separately. These figures are deducted from the Total Rates (before rebates and exemptions column) to give the Total Rates after Rebates and Exemptions column (net rates based on the scenario). However, the model does not cater for all rebates in terms of the Rates Policy (KwaDukuza Municipality, 2018).

The next table (Table 4.2) indicates the "Impermissible" Rates (statutory) and the "Reductions" (discretionary):

TABLE 4. 2 IMPERMISSIBLE RATES AND REDUCTIONS – KWADUKUZA MUNICIPALITY RATES POLICY

Category	Impermissible No. Erfs	Impermissible 1st	Impermissible No. Erfs	Impermissible 1st	Reduction No. Erfs	Reduction
	R15,000	R15,000 Valuation	30%	30% Valuation	R85,000	R85,000 Valuation
AGRICULTURE						
COMMERCIAL						
INDUSTRIAL						
MUNICIPAL						
NATIONAL MONUMENTS						
PARKING						
PLACE OF WORSHIP						
PRIVATE OPEN SPACE						
PROTECTED AREA						
PUBLIC SERVICE INFRASTRUCTURE			512	R964,290,900		
RESIDENTIAL	37718	R557,725,000			37129	R2,563,018,500
ROAD						
WORSHIP						
TOTALS	37718	R557,725,000	512	R964,290,900	37129	R2,563,018,500

Source : Rates Modelling Tool based on KwaDukuza Municipality Rates Policy (2018b)

The model results in Table 4.1 do not take into account two specific rebates. Table 4.3 adds a 50% rebate on Agricultural properties and a Pensioners' rebate at 4.3% of residential value.

TABLE 4.3 ADDITIONAL REBATES NOT PROVIDED FOR IN MODEL – KWADUKUZA MUNICIPALITY RATES POLICY

Category	Count	Total Value	Average Value	Total Rates Before Rebates and Exemptions	Total Exemptions	Rebates		Sub-total	Additional Rebate 50%	Pensioners Rebate	Total Rates After Rebates and Exemptions
AGRICULTURE	2116	R4,444,866,000	R2,100,598	R8,234,114	R14,633	R494,047	6%	R7,725,434	R3,862,717		R3,862,717
COMMERCIAL	2013	R6,134,240,000	R3,047,312	R140,600,535	R0	R8,436,032	6%	R132,164,503	R0		R132,164,503
INDUSTRIAL	418	R660,371,000	R1,579,835	R15,136,107	R0	R908,166	6%	R14,227,941	R0		R14,227,941
MUNICIPAL	333	R114,355,000	R343,408	R2,621,087	R2,621,087	R0	R0	R0	R0		R0
NATIONAL MONUMENTS	1	R19,000	R19,000	R0	R0	R0	R0	R0	R0		R0
PARKING	19	R4,261,000	R224,263	R0	R0	R0	R0	R0	R0		R0
PLACE OF WORSHIP	66	R78,980,000	R1,196,667	R1,810,270	R1,810,270	R0	R0	R0	R0		R0
PRIVATE OPEN SPACE	2	R0	R0	R0	R0	R0	R0	R0	R0		R0
PROTECTED AREA	275	R20,936,000	R76,131	R0	R0	R0	R0	R0	R0		R0
PUBLIC SERVICE INFRASTRUCTURE	512	R3,214,303,000	R6,277,936	R5,954,496	R0	R4,763,597	80%	R1,190,899	R0		R1,190,899
RESIDENTIAL	37718	R43,108,732,500	R1,142,922	R375,823,902	R23,976,567	R22,549,434	6%	R329,297,235	R0	R16,160,428	R313,136,807
ROAD	284	R1,026,000	R3,613	R0	R0	R0	R0	R0	R0		R0
WORSHIP	5	R1,290,000	R258,000	R0	R0	R0	R0	R0	R0		R0
TOTALS	43762	R57,783,379,500		R550,180,511	R28,423,223	R37,151,276		R484,606,012	R3,862,717	R16,160,428	R464,582,867

Source : Author compiled using information from Rates Modelling Tool and KwaDukuza Municipality Rates Policy (2018b)

This has reduced the “Total Rates after Rebates and Exemptions” from R507,650,160 in Table 4.1 to R464,582,867 (Table 4.3). The current base rate in the model for improved residential property is 0.741 cents in the rand (rate randage).

To achieve the budgeted rates income of R430,791,000 the model has predicted a base rate of 0.006288. If this base rate (0.006288) is captured in the above scenario, without the further rebates of 50% on Agricultural properties and a Pensioners’ rebate at 4.3% of residential value, the model will produce a total income of R430,791,000.

This is particularly useful for under-resourced municipalities who do not have the financial skills to determine the base rate that should be used for their Rates Policy. If they know how much income they require to balance their budget, the model can calculate the base rate that is required.

There are 11,655 properties valued at less than R130,000 in the valuation roll. In terms of KwaDukuza Municipality’s Rates Policy, these properties are exempt from property rates and are considered to belong to Indigent persons.

KwaDukuza Municipality’s policy is well-balanced in respect of the interests of all ratepayers. Consideration of the role of agriculture in the economy and job creation is acknowledged by the 50% rebate on the rates for agricultural properties.

4.4 Modelling of eThekweni Municipality’s Rates Policy on KwaDukuza Municipality’s valuation roll

eThekweni Municipality is a metropole and much larger than KwaDukuza Municipality at 2,556 square kilometres (KwaDukuza 735 square kilometres) according to Municipalities of South Africa (Media, 2019). The population size is also more than 13 times that of KwaDukuza Municipality at 3,702,231 in 2016. eThekweni Municipality’s demographics are shown in Table 4.4:

TABLE 4. 4 ETHEKWINI MUNICIPALITY : DEMOGRAPHIC INFORMATION

	2016	2011
Population	3 702 231	3 476 686
Age Structure		
Population under 15	29.50%	25.30%
Population 15 to 64	64.80%	69.90%
Population over 65	5.70%	4.80%
Dependency Ratio		
Per 100 (15-64)	54.4	43
Sex Ratio		
Males per 100 females	96.2	95.5
Population Growth		
Per annum	1.43%	n/a
Labour Market		
Unemployment rate (official)	n/a	30.20%
Youth unemployment rate (official) 15-34	n/a	39.00%
Education (aged 20 +)		
No schooling	4.70%	4.20%
Matric	43.10%	36.90%
Higher education	10.90%	11.80%
Household Dynamics		
Households	1 125 767	963 011
Average household size	3.3	3.4
Female headed households	42.10%	40.10%
Formal dwellings	81.50%	78.80%
Housing owned	74.00%	54.60%
Household Services		
Flush toilet connected to sewerage	69.30%	63.00%
Weekly refuse removal	78.10%	85.60%
Piped water inside dwelling	60.80%	59.80%
Electricity for lighting	95.70%	89.60%

Source :Author compiled using information from Municipalities of South Africa (Yes Media, 2019) and Statistics SA Census 2011 (StatsSA, 2011)

Table 4.4 shows that approximately 2.4million people fall within the age group of 15-64 years, with a dependency ratio of 54.4 per 100 people. The unemployment rate in 2016 is 38.30% for this municipality. People over 65 years of age constitute 5.7% of the population at approximately 211,000 residents.

eThekwini Municipality's Rates Policy plans on making the additional residential rebate of R105,000 per property with a value of more than R230,000 an application based

rebate from next financial year. Properties valued at R230,000 and below are exempt from rates (eThekweni Municipality, 2018).

eThekweni Municipality's rates policy (2018) only offers a rate randage at the prescribed rate of 25% of the residential randage for Agricultural properties. No further exemptions or rebates are offered to *bona fide* farmers. The policy also appears to categorise properties in a demarcated area called "outside the urban development line" where services are mostly not provided and development is not encouraged. These properties are rated at a higher randage than normal residential dwellings. The results from modelling eThekweni Municipality's policy are presented in Table 4.5.

TABLE 4. 5 APPLICATION OF ETHEKWINI MUNICIPALITY RATES POLICY TO KWADUKUZA MUNICIPALITY VALUTION ROLL

Category	Count	Total Value	Average Value	Total Rates Before Rebates and Exemptions	Total Exemptions	Total Rebates	Total Rates After Rebates and Exemptions
AGRICULTURE	2116	R4,444,866,000	R2,100,598	R12,435,624	R22,099	R0	R12,413,524
COMMERCIAL	2013	R6,134,240,000	R3,047,312	R164,777,783	R0	R0	R164,777,783
INDUSTRIAL	418	R660,371,000	R1,579,835	R22,903,535	R0	R0	R22,903,535
MUNICIPAL	333	R114,355,000	R343,408	R1,279,747	R1,279,747	R0	R0
NATIONAL MONUMENTS	1	R19,000	R19,000	R0	R0	R0	R0
PARKING	19	R4,261,000	R224,263	R0	R0	R0	R0
PLACE OF WORSHIP	66	R78,980,000	R1,196,667	R883,865	R883,865	R0	R0
PRIVATE OPEN SPACE	2	R0	R0	R0	R0	R0	R0
PROTECTED AREA	275	R20,936,000	R76,131	R0	R0	R0	R0
PUBLIC SERVICE INFRASTRUCTURE	512	R3,214,303,000	R6,277,936	R8,992,816	R0	R2,697,845	R6,294,971
RESIDENTIAL	37718	R43,108,732,500	R1,142,922	R624,158,077	R39,943,531	R0	R584,214,546
ROAD	284	R1,026,000	R3,613	R0	R0	R0	R0
WORSHIP	5	R1,290,000	R258,000	R0	R0	R0	R0
TOTALS	43762	R57,783,379,500		R835,431,447	R42,129,242	R2,697,845	R790,604,360

Source: Rates Modelling Tool

In all instances, KwaDukuza Municipality's valuation roll will be used to model the rates based on the different rates policies of the municipalities selected as part of this study, namely eThekwini, Umdoni and Ray Nkonyeni Municipalities. This will result in the first four columns having constant values: the categories remain the same while the "Count", "Total Value" and "Average Value" values remain the same in all the model output tables. The "Total Rates before Rebates and Exemptions", "Total Exemptions", "Total Rebates" and "Total Rates after Rebates and Exemptions" values are based on eThekwini Municipality's Rates Policy (2018).

KwaDukuza Municipality's threshold for exemption of Indigent persons, in terms of their rates policy (2018b), was R130,000 whereas eThekwini Municipality's policy (2018) provides for a threshold of R230,000. There are 15,805 properties in KwaDukuza Municipality's valuation roll valued at R230,000 or less, with a total value of R1,171,873,500. However, some are company owned and some are garages and storerooms in sectional title complexes – these have been excluded. Therefore, for the purposes of modelling eThekwini Municipality's Rates Policy (2018), a total of 13,253 properties with a value of less than R230,000 have been flagged as Indigent.

TABLE 4. 6 IMPERMISSIBLE RATES AND REDUCTIONS – ETHEKWINI MUNICIPALITY RATES POLICY

Category	Impermissible No. Erfs	Impermissible 1st	Impermissible No. Erfs	Impermissible 1st	Reduction No. Erfs	Reduction
	R15,000	R15,000	30%	30%	R90,000	R90,000
		Valuation		Valuation		Valuation
AGRICULTURE						
COMMERCIAL						
INDUSTRIAL						
MUNICIPAL						
NATIONAL MONUMENTS						
PARKING						
PLACE OF WORSHIP						
PRIVATE OPEN SPACE						
PROTECTED AREA						
PUBLIC SERVICE INFRASTRUCTURE			512	R964,290,900		
RESIDENTIAL	37718	R557,725,000			37129	R2,686,258,500
ROAD						
WORSHIP						
TOTALS	37718	R557,725,000	512	R964,290,900	37129	R2,686,258,500

Source: Author compiled using Rates Policies (2018b, 2018d, 2018) and Rates Modelling Tool

However, we have again added in a Pensioners' rebates that the model does not take into account: 12000 households at R4364 per household (eThekwini, 2018), as shown in Table 4.7

TABLE 4. 7 ADDITIONAL REBATES NOT PROVIDED FOR IN MODEL – ETHEKWINI MUNICIPALITY RATES POLICY

Category	Count	Total Value	Average Value	Total Rates Before Rebates and Exemptions	Total Exemptions	Total Rebates	Sub-total	Pensioners Rebate	Total Rates After Rebates and Exemptions
AGRICULTURE	2116	R4,444,866,000	R2,100,598	R12,435,624	R22,099	R0	R12,413,525	R0	R12,413,525
COMMERCIAL	2013	R6,134,240,000	R3,047,312	R164,777,783	R0	R0	R164,777,783	R0	R164,777,783
INDUSTRIAL	418	R660,371,000	R1,579,835	R22,903,535	R0	R0	R22,903,535	R0	R22,903,535
MUNICIPAL	333	R114,355,000	R343,408	R1,279,747	R1,279,747	R0	R0	R0	R0
NATIONAL MONUMENTS	1	R19,000	R19,000	R0	R0	R0	R0	R0	R0
PARKING	19	R4,261,000	R224,263	R0	R0	R0	R0	R0	R0
PLACE OF WORSHIP	66	R78,980,000	R1,196,667	R0	R0	R0	R0	R0	R0
PRIVATE OPEN SPACE	2	R0	R0	R0	R0	R0	R0	R0	R0
PROTECTED AREA	275	R20,936,000	R76,131	R0	R0	R0	R0	R0	R0
PUBLIC SERVICE INFRASTRUCTURE	512	R3,214,303,000	R6,277,936	R8,992,816	R0	R2,697,845	R6,294,971	R0	R6,294,971
RESIDENTIAL	37718	R43,108,732,500	R1,142,922	R624,158,077	R39,943,531	R0	R584,214,546	R52,368,000	R531,846,546
ROAD	284	R1,026,000	R3,613	R0	R0	R0	R0	R0	R0
WORSHIP	5	R1,290,000	R258,000	R0	R0	R0	R0	R0	R0
TOTALS	43762	R57,783,379,500		R834,547,582	R41,245,377	R2,697,845	R790,604,360	R52,368,000	R738,236,360

Source: Author compiled using information from eThekwini Municipality's Rates Policy (2018) and Rates Modelling Tool

Those categories of property that do not form part of the KwaDukuza Municipality, such as the Urban Development Line, have not been modelled.

The higher base rate of 0.011191 for improved residential property as per eThekwini Municipality's rates policy (2018), has increased the modelled rates income for KwaDukuza Municipality by more than 63 percent. The Pensioners' rebate, based on a fixed amount per property, has increased more than three-fold, resulting in an overall increase in net income of almost 59 percent.

The current base rate in eThekwini Municipality's Rates Policy (2018) for improved residential property is 0.011191. To achieve a rates income of R430,791,000 as indicated in KwaDukuza Municipality's approved budget (2018c) and utilising eThekwini Municipality's Rates Policy (2018), the model has predicted a base rate of 0.006098. If this base rate (0.006098) is captured in the eThekwini Municipality scenario in the model, without the Pensioners' rebate of R4,364, the model will produce a total income of R430,791,000.

4.5 Modelling of Umdoni Municipality's Rates Policy on KwaDukuza Municipality's valuation roll

Umdoni Municipality is a local municipality (Category B) and part of Ugu District Municipality. While it covers a larger area than KwaDukuza Municipality at 994 square kilometres, it has a population size of just more than half that of KwaDukuza Municipality. The demographics of Umdoni Municipality is shown in Table 4.8.

TABLE 4. 8 UMDONI MUNICIPALITY DEMOGRAPHICS

	2016	2011
Population	144 551	130 413
Age Structure		
Population under 15	36.40%	31.20%
Population 15 to 64	58.70%	61.60%
Population over 65	4.90%	7.20%
Dependency Ratio		
Per 100 (15-64)	70.2	62.3
Sex Ratio		
Males per 100 females	92.9	90.8
Population Growth		
Per annum	2.34%	n/a
Labour Market		
Unemployment rate (official)	n/a	n/a
Youth unemployment rate (official) 15-34	n/a	n/a
Education (aged 20 +)		
No schooling	10.60%	15.10%
Matric	32.60%	25.60%
Higher education	7.50%	5.70%
Household Dynamics		
Households	35 433	34 191
Average household size	4.1	3.6
Female headed households	47.80%	47.20%
Formal dwellings	63.00%	56.60%
Housing owned	69.40%	56.80%
Household Services		
Flush toilet connected to sewerage	23.50%	23.80%
Weekly refuse removal	20.80%	35.60%
Piped water inside dwelling	23.50%	28.90%
Electricity for lighting	80.20%	60.6

Source :Municipalities of South Africa (Yes Media, 2019)

In order to encourage property ownership and to assuage hardship amongst the owners of low-cost housing, the municipality has exempted a further R60,000 rand on residential property, over and above the R15,000 that the MPRA (2004) prescribes. This means that no rates are payable on the first R75,000 of residential property (Umdoni Municipality, 2018). Umdoni Municipality has not provided any further relief for Agricultural property other than the prescribed restriction of 25% of the residential base rate. The model has produced the following report utilising Umdoni Municipality's policy (see Table 4.9)

TABLE 4. 9 APPLICATION OF UMDONI MUNICIPALITY RATES POLICY TO KWADUKUZA MUNICIPALITY'S VALUATION ROLL

Category	Count	Total Value	Average Value	Total Rates Before Rebates and Exemptions	Total Exemptions	Total Rebates	Total Rates After Rebates and Exemptions
AGRICULTURE	2116	R4,444,866,000	R2,100,598	R11,045,492	R19,629	R0	R11,025,863
COMMERCIAL	2013	R6,134,240,000	R3,047,312	R85,666,612	R0	R0	R85,666,612
INDUSTRIAL	418	R660,371,000	R1,579,835	R9,619,228	R0	R0	R9,619,228
MUNICIPAL	333	R114,355,000	R343,408	R1,136,689	R1,136,689	R0	R0
NATIONAL MONUMENTS	1	R19,000	R19,000	R0	R0	R0	R0
PARKING	19	R4,261,000	R224,263	R0	R0	R0	R0
PLACE OF WORSHIP	66	R78,980,000	R1,196,667	R0	R0	R0	R0
PRIVATE OPEN SPACE	2	R0	R0	R0	R0	R0	R0
PROTECTED AREA	275	R20,936,000	R76,131	R0	R0	R0	R0
PUBLIC SERVICE							
INFRASTRUCTURE	512	R3,214,303,000	R6,277,936	R7,987,543	R0	R7,987,543	R0
RESIDENTIAL	37718	R43,108,732,500	R1,142,922	R440,570,380	R21,619,919	R0	R418,950,460
ROAD	284	R1,026,000	R3,613	R0	R0	R0	R0
WORSHIP	5	R1,290,000	R258,000	R0	R0	R0	R0
TOTALS	43762	R57,783,379,500		R556,025,943	R22,776,237	R7,987,543	R525,262,163

Source: Author compiled using information from Rates Policy (Umdoni, 2018) and Rates Modelling Tool

While the number of economically active residents has declined between 2011 (61.60%) and 2016 (58.70%), the dependency ratio has increased from 62.3 persons per 100 in 2011 to 70.2 Persons per 100 in 2016. The municipality further incorporates 7 Traditional Authority areas, which do not pay rates as a rule (Umdoni, 2019). This places further financial constraints on the local municipality in so far as rates income is concerned.

TABLE 4. 10 IMPERMISSIBLE RATES AND REDUCTIONS – UMDONI MUNICIPALITY

Category	Impermissible	Impermissible	Impermissible	Impermissible	Reduction	Reduction
	No. Erfs	1st	No. Erfs	1st	No. Erfs	Valuation
	R15,000	R15,000	30%	30%	R45,000	R45,000
		Valuation		Valuation		Valuation
AGRICULTURE						
COMMERCIAL						
INDUSTRIAL						
MUNICIPAL						
NATIONAL MONUMENTS						
PARKING						
PLACE OF WORSHIP						
PRIVATE OPEN SPACE						
PROTECTED AREA						
PUBLIC SERVICE INFRASTRUCTURE			512	R964,290,900		
RESIDENTIAL	37718	R557,725,000			37129	R1,511,743,000
ROAD						
WORSHIP						
TOTALS	37718	R557,725,000	512	R964,290,900	37129	R1,511,743,000

Source: Rates Modelling Tool based on Umdoni Municipality's Rates Policy (2018)

However, we have again added in the pensioners' rebate at 4.3% of Residential rates that the model does not take into account, as shown in Table 4.11

TABLE 4. 11 ADDITIONAL REBATES NOT PROVIDED FOR IN MODEL – UMDONI MUNICIPALITY RATES POLICY

Category	Count	Total Value	Average Value	Total Rates Before Rebates and Exemptions	Total Exemptions	Total Rebates	Sub-total	Additional Rebates not Inc in Model		Total Rates After Rebates and Exemptions
AGRICULTURE	2116	R4,444,866,000	R2,100,598	R11,045,492	R19,629	R0	R11,025,863	R0		R11,025,863
COMMERCIAL	2013	R6,134,240,000	R3,047,312	R85,666,612	R0	R0	R85,666,612	R0		R85,666,612
INDUSTRIAL	418	R660,371,000	R1,579,835	R9,619,228	R0	R0	R9,619,228	R0		R9,619,228
MUNICIPAL	333	R114,355,000	R343,408	R1,136,689	R1,136,689	R0	R0	R0		R0
NATIONAL MONUMENTS	1	R19,000	R19,000	R0	R0	R0	R0	R0		R0
PARKING	19	R4,261,000	R224,263	R0	R0	R0	R0	R0		R0
PLACE OF WORSHIP	66	R78,980,000	R1,196,667	R785,061	R785,061	R0	R0	R0		R0
PRIVATE OPEN SPACE	2	R0	R0	R0	R0	R0	R0	R0		R0
PROTECTED AREA	275	R20,936,000	R76,131	R0	R0	R0	R0	R0		R0
PUBLIC SERVICE INFRASTRUCTURE	512	R3,214,303,000	R6,277,936	R7,987,543	R0	R7,987,543	R0	R0		R0
RESIDENTIAL	37718	R43,108,732,500	R1,142,922	R440,570,380	R21,622,007	R0	R418,948,373	R18,944,526	4.3%	R400,003,847
ROAD	284	R1,026,000	R3,613	R0	R0	R0	R0	R0		R0
WORSHIP	5	R1,290,000	R258,000	R0	R0	R0	R0	R0		R0
TOTALS	43762	R57,783,379,500		R556,811,004	R23,563,386	R7,987,543	R525,260,076	R18,944,526		R506,315,550

Source: Author compiled using information from Umdoni Municipality Rates Policy (2018) and Rates Modelling Tool

The total income after further rebates and exemptions based on Umdoni Municipality's Rates Policy (2018) has increased the revenue to R506,315,550 for KwaDukuza Municipality.

The current base rate for improved residential property is 0.00994 in Umdoni Municipality's Rates Policy (2018).

To achieve a rates income of R430,791,000 as indicated in KwaDukuza Municipality's approved budget (2018c), utilising Umdoni Municipality's Rates Policy (2018), the model has predicted a base rate of 0.8152 cents in the rand. If this base rate (0.008152) is captured in the Umdoni Municipality scenario in the model, without the 4.3% Pensioners' rebate, the model will produce a total income of R430,791,000.

4.6 Modelling of Ray Nkonyeni Municipality's Rates Policy on KwaDukuza Municipality's valuation roll

Ray Nkonyeni Local Municipality, a Category B municipality, is located within Ugu District Municipality. It has a population approximately 26% greater than KwaDukuza Municipality whilst covering an area of approximately 1,487 square kilometres (Yes Media, 2019). It has 6 Traditional Authorities located within its boundaries after Eziqoleni Municipality was incorporated into Hibiscus Coast Municipality to form the new Municipality. It too, has experienced a decline in the economically active population while having an increased dependency ratio (Ray Nkonyeni, 2019).

A very healthy Macadamia Nut export market has seen sugar cane replaced by Macadamia Nut trees, bringing good revenue into the region (Wright, 2018). It also has a large industrial node in Port Shepstone with a healthy seasonal influx of tourists to the coastal towns.

TABLE 4. 12 RAY NKONYENI MUNICIPALITY DEMOGRAPHICS

	2016	2011
Population	348 533	308 675
Age Structure		
Population under 15	34.40%	29.80%
Population 15 to 64	61.00%	63.20%
Population over 65	4.70%	7.00%
Dependency Ratio		
Per 100 (15-64)	64	58.2
Sex Ratio		
Males per 100 females	91.2	88.9
Population Growth		
Per annum	2.76%	n/a
Labour Market		
Unemployment rate (official)	n/a	n/a
Youth unemployment rate (official) 15-34	n/a	n/a
Education (aged 20 +)		
No schooling	5.10%	8.30%
Matric	35.70%	26.70%
Higher education	9.90%	9.50%
Household Dynamics		
Households	90 409	83 644
Average household size	3.9	3.5
Female headed households	48.30%	47.70%
Formal dwellings	65.70%	80.70%
Housing owned	70.30%	62.70%
Household Services		
Flush toilet connected to sewerage	28.70%	26.00%
Weekly refuse removal	26.60%	33.50%
Piped water inside dwelling	29.90%	35.90%
Electricity for lighting	88.60%	84.80%

Source: Yes Media, 2019

The dependency ratio has increased since 2011. This is supported by an increase in children under the age of 15 years. The economically active population has declined by 2.2% from 2011 to 2016. The elderly (over the age of 65 years) are 4.7% of the population in 2016.

The model has produced the following report utilising Ray Nkonyeni Municipality's policy (2018) as shown in Table 4.13.

TABLE 4. 13 APPLICATION OF RAY NKONYENI MUNICIPALITY RATES POLICY TO KWADUKUZA MUNICIPALITY'S VALUATION ROLL

Category	Count	Total Value	Average Value	Total Rates Before Rebates and Exemptions	Total Exemptions	Total Rebates	Total Rates After Rebates and Exemptions
AGRICULTURE	2116	R4,444,866,000	R2,100,598	R11,986,692	R21,302	R0	R11,965,391
COMMERCIAL	2013	R6,134,240,000	R3,047,312	R113,678,825	R0	R0	R113,678,825
INDUSTRIAL	418	R660,371,000	R1,579,835	R12,347,043	R0	R0	R12,347,043
MUNICIPAL	333	R114,355,000	R343,408	R1,233,547	R1,233,547	R0	R0
NATIONAL MONUMENTS	1	R19,000	R19,000	R0	R0	R0	R0
PARKING	19	R4,261,000	R224,263	R0	R0	R0	R0
PLACE OF WORSHIP	66	R78,980,000	R1,196,667	R851,957	R851,957	R0	R0
PRIVATE OPEN SPACE	2	R0	R0	R0	R0	R0	R0
PROTECTED AREA	275	R20,936,000	R76,131	R0	R0	R0	R0
PUBLIC SERVICE INFRASTRUCTURE	512	R3,214,303,000	R6,277,936	R8,668,172	R0	R2,600,451	R6,067,720
RESIDENTIAL	37718	R43,108,732,500	R1,142,922	R504,229,594	R30,292,647	R0	R473,936,947
ROAD	284	R1,026,000	R3,613	R0	R0	R0	R0
WORSHIP	5	R1,290,000	R258,000	R0	R0	R0	R0
TOTALS	43762	R57,783,379,500		R652,995,831	R32,399,453	R2,600,451	R617,995,926

Source: Rates Modelling Tool

TABLE 4. 14 IMPERMISSIBLE RATES AND REDUCTIONS – RAY NKONYENI MUNICIPALITY

Category	Impermissible No. Erf	Impermissible 1st	Impermissible No. Erf	Impermissible 1st	Reduction No. Erf	Reduction
	R15,000	R15,000	30%	30%	R70,000	R70,000
		Valuation		Valuation		Valuation
AGRICULTURE						
COMMERCIAL						
INDUSTRIAL						
MUNICIPAL						
NATIONAL MONUMENTS						
PARKING						
PLACE OF WORSHIP						
PRIVATE OPEN SPACE						
PROTECTED AREA						
PUBLIC SERVICE INFRASTRUCTURE			512	R964,290,900		
RESIDENTIAL	37718	R557,725,000			37129	R2,184,873,000
ROAD						
WORSHIP						
TOTALS	37718	R557,725,000	512	R964,290,900	37129	R2,184,873,000

Source: Rates Modelling Tool

However, we have again added in the further rebates that the model does not take into account: 60% for Agricultural properties and 4.3% for pensioners, as shown in Table 4.15 below.

TABLE 4. 15 ADDITIONAL REBATES NOT PROVIDED FOR IN MODEL – RAY NKONYENI MUNICIPALITY RATES POLICY

Category	Count	Total Value	Average Value	Total Rates Before Rebates and Exemptions	Total Exemptions	Total Rebates	Sub-total	Additional Rebates		Total Rates After Rebates and Exemptions
AGRICULTURE	2116	R4,444,866,000	R2,100,598	R11,986,692	R21,302	R0	R11,965,391	R7,192,015	60%	R4,773,376
COMMERCIAL	2013	R6,134,240,000	R3,047,312	R113,678,825	R0	R0	R113,678,825	R0		R113,678,825
INDUSTRIAL	418	R660,371,000	R1,579,835	R12,347,043	R0	R0	R12,347,043	R0		R12,347,043
MUNICIPAL	333	R114,355,000	R343,408	R1,233,547	R1,233,547	R0	R0	R0		R0
NATIONAL MONUMENTS	1	R19,000	R19,000	R0	R0	R0	R0	R0		R0
PARKING	19	R4,261,000	R224,263	R0	R0	R0	R0	R0		R0
PLACE OF WORSHIP	66	R78,980,000	R1,196,667	R851,957	R851,957	R0	R0	R0		R0
PRIVATE OPEN SPACE	2	R0	R0	R0	R0	R0	R0	R0		R0
PROTECTED AREA	275	R20,936,000	R76,131	R0	R0	R0	R0	R0		R0
PUBLIC SERVICE INFRASTRUCTURE	512	R3,214,303,000	R6,277,936	R8,668,172	R0	R2,600,451	R6,067,720	R0		R6,067,720
RESIDENTIAL	37718	R43,108,732,500	R1,142,922	R504,229,594	R30,292,647	R0	R473,936,947	R21,681,873	4.30%	R452,255,074
ROAD	284	R1,026,000	R3,613	R0	R0	R0	R0	R0		R0
WORSHIP	5	R1,290,000	R258,000	R0	R0	R0	R0	R0		R0
TOTALS	43762	R57,783,379,500		R652,995,831	R32,399,453	R2,600,451	R617,995,926	R28,873,888		R589,122,038

Source: Author compiled using information from Ray Nkonyeni Municipality's Rates Policy (2018) and Rates Modelling Tool

The Ray Nkonyeni Municipality's base rate used for improved residential property is 0.010787 which is higher than KwaDukuza and Umdoni Municipalities, but lower than eThekweni Municipalities. This has resulted in an income for KwaDukuza Municipality, after all rebates and exemptions, of R589,122,038 notwithstanding the 60 percent rebate for agricultural properties and pensioner's rebate of 4.3% being applied.

To achieve a rates income of R430,791,000 as indicated in the KwaDukuza Municipality's approved budget (2018c), applying Ray Nkonyeni Municipality's Rates Policy to the KwaDukuza Municipality's valuation roll, the model has predicted a base rate of 0.7519 cents in the rand.

4.7 Conclusion

The purpose of this chapter was to model KwaDukuza Municipality's potential rates revenue by applying the eThekweni, Umdoni and Ray Nkonyeni Municipalities' rates policies (2018) to KwaDukuza Municipality's valuation roll. The model outputs, as anticipated, are varied due to the differences in the rates policies and will be discussed further in Chapter Five.

5. CHAPTER FIVE : DISCUSSION

5.1 Introduction

The purpose of this chapter is to discuss the model outputs for each municipality's rates policy as applied to KwaDukuza Municipality. Whilst very little research has been undertaken into the categories of property and rebates provided by municipalities, the model outputs together with practices elsewhere, both locally and internationally, will be considered.

Municipalities are required to budget annually with property rates forming part of the revenue generated. As found by Cromwell and Ihlenfeldt (2015), where property markets decline and property values are impacted, the millage rates are increased and expenditure curtailed by local authorities. KwaDukuza Municipality budgeted for a net rates revenue (after exemptions and rebates) of R430,791,000 for the 2018/2019 financial year (KwaDukuza Municipality, 2018c).

Section 5.2 looks at the categories of property that will yield the greatest income, while section 5.3 looks at the criteria for rebates and exemptions and usually relates to a category of owner. Section 5.4 discusses optimal rate ranges and Section 5.5 concludes the chapter.

5.2 The categories of property that will yield the greatest income

The first research objective relates to the categories of property that will yield the greatest income.

KwaDukuza Municipality's model output provides a total revenue after adjusted rebates and exemptions of R464,582,867, which is closest to the budgeted income of R430,791,000 for the year (KwaDukuza, 2018c). However, the application of eThekweni Municipality's Rate Policy (2018) to KwaDukuza Municipality's valuation roll resulted in an adjusted income of almost R740,000,000 which is substantially more than the budget income for KwaDukuza Municipality (2018c). Umdoni Municipality's Rates Policy (2018) applied to KwaDukuza Municipality's valuation roll yielded an adjusted income of R506,315,550 for the year, which is approximately 17.5% more than that budgeted for the year (KwaDukuza Municipality, 2018c). Ray Nkonyeni Municipality's Rates Policy (2018) when applied to KwaDukuza Municipality's

valuation roll yielded an adjusted income of R589,122,038 which is more than R158,000,000 in excess of the budgeted income for the year (KwaDukuza, 2018c).

Section 8 (2) of the MPRA sets out the categories of property that must be determined by a Municipality as follows:

- “ (a) Residential properties;
(b) industrial properties;
(c) business and commercial properties;
(d) agricultural properties;
(e) mining properties;
(f) properties owned by an organ of state and used for public service purposes;
(g) public service infrastructure properties;
(h) properties owned by public benefit organisations and used for specified public benefit activities;
(i) properties used for multiple purposes, subject to section 9; or
(j) any other category of property as may be determined by the Minister, with the concurrence of the Minister of Finance, by notice in the *Gazette*”.

The differentiation between multiple purpose property uses is important for properties where shops are on street level with residential units above. The dominant use principle will see the entire building rates as Residential.

Section 8 (3) further provides that a Municipality may determine additional categories of property to be rated, provided that they can motivate the necessity for such further category / sub-category and obtain the required authorisation from the Minister.

All of the municipalities that were considered in this study are located along the coast of KwaZulu-Natal and count tourism amongst the industries of their regions (KwaZulu-Natal Top Business. 2019). There are numerous Bed and Breakfast establishments, hotels, lodges and other holiday accommodation that form part of these tourism initiatives (Where To Stay, 2019). However, categorising these initiatives as Commercial entities will act as a deterrent to those offering these establishments for holiday accommodation. A balance should be struck between the Residential nature of the Bed and Breakfast establishments and other self-catering holiday accommodation and the commercial nature of hotels and other lodges. KwaDukuza

has a sub-category of Residential Used for Commercial Purposes, which levies a rate less than a Commercial category, but more than that for a Residential category. This increases the revenue without inhibiting the tourism initiative in the region (KwaDukuza Municipality, 2018c).

eThekwini Municipality has taken this into consideration by offering a rebate for those establishments that fulfil certain criteria, *inter alia*, registration with Durban Tourism and a Community Tourism Organisation (eThekwini Municipality, 2018).

Umdoni Municipality does not consider any rebates for holiday accommodation and rates these establishments as Commercial (Umdoni Municipality, 2018).

Ray Nkonyeni Municipality rates holiday accommodation as Commercial with a 20% rebate offered (Ray Nkonyeni Municipality, 2018).

Tourism provides significant income to the KwaZulu-Natal economy and should be encouraged, while the Municipalities can benefit from additional rates without destroying the industry by rating these properties as Commercial.

Agriculture is also an important industry of the municipalities that are in this study and special consideration has to be given to this category of property. Generally, no municipal services are provided to these properties due to their rural locations outside of the towns. They provide employment to the locals and are significant for their contribution to feeding the population as well as bringing export revenues into the economy. South Africa is one of the largest exporters of Macadamia nuts and expects to increase production twofold by 2020 (Wright, 2018). Whilst the regulations to the MPRA restricts the rate range on agricultural property to 25% of that for residential property, a Municipality is free to determine the base rate for residential property. They are also free to provide a further reduction to this category of property, which is what KwaDukuza Municipality has done with a further 50% rebate on Agricultural properties (Kwadukuza Municipality, 2019a). All the other municipalities have either decided not to provide any further relief or have made such relief conditional upon application for such relief. Umdoni Municipality further sub-categorises Agricultural Property into Farms used for Agricultural Properties, Farms used for Commercial Purposes, Farms Used for Residential Purposes. This would be useful in limiting the rebates applied to Agricultural property to properties where *bona fide* farming operations are undertaken.

Where farms and smallholdings are occupied for lifestyle purposes only, these rebates would not apply and a residential randage could be applied. Where commercial activities are undertaken on farm properties, for example brick-making activities, a commercial randage could be applied.

Municipalities have a development imperative in terms of sections 152(1)(b), 153(a) and 195(1) of the Constitution of the Republic of South Africa (1996). They also have to provide services to their communities in a sustainable manner and as such require a return on capital expenditure on services by recovering the costs on a “pay for use” basis. Electricity and water usage are billed by the local municipalities on a monthly basis. However, vacant land does not attract such charges and the rate randage for this category of property is usually higher than that for improved properties to encourage development. Residential and industrial development increases a local municipalities rates base and should be promoted. However, the cost of large scale residential and industrial development is prohibitive, especially in economically constrained times such as the country in currently experiencing. In order to lessen the financial burden of holding costs on development land, which would be rated as vacant land, the KwaDukuza Municipality has provided incentives over 5 years for industrial developments and 7 years for residential development to ease the rates burden (KwaDukuza Municipality, 2019b). eThekweni Municipality has deferred rates in the Waterfront area (Special Zone 91 in terms of their Scheme) and provides for Greenfields and Brownfields development incentives for a defined period from date of plan approval (eThekweni Municipality, 2018). Umdoni Municipality provides relief for developers and subsequent owners of qualifying large scale developments in terms of their rates policy. This has been implemented to promote residential development within the local municipality (Umdoni Municipality, 2019). Ray Nkonyeni Municipality makes no provision for developers’ incentives in their current rates (Ray Nkonyeni Municipality, 2019).

Whilst the MPRA (2004) previously provided municipalities with unfettered discretion to determine the categories of property (de Visser, 2013), an amendment to the Act in 2014 has curtailed this by including the categories of property that may be adopted in a valuation roll, if they exist within a municipality. Additional categories may only be added upon application to the Minister and providing adequate motivation for their inclusion (MPRA, 2004).

Also, unlike in Denmark (Muller, et al., 2010) and California (Ihlanfeldt, 2011), the only limits placed on property values and tax rates are the determination of certain ratios imposed by central government (MPRA Regulations, 2009)

5.3 The criteria that should be considered for rebates and exemptions

Section 3 (3) of the MPRA (2004) prohibits the granting of discounts on rates, and exclusion from the liability for rates, to owners on an individual basis and only permits a municipality to do so based on a category of owners as provided for in a Rates Policy. This is to ensure impartial treatment of property owners and provide for the mitigation of adverse social and financial conditions experienced within a municipal area.

Some of the categories of owners listed at section 15 (2) of the MPRA (2004) include:

- “(a) indigent owners;
 - (b) owners dependent on pensions or social grants for their livelihood;
 - (c) owners temporarily without income;
 - (d) owners of property situated within an area affected by-
 - (i) a disaster within the meaning of the Disaster Management Act, 2002 (Act 57 of 2002); or
 - (ii) any other serious adverse social or economic conditions;
 - (e) owners of residential property with a market value lower than an amount determined by the municipality; or
 - (f) owners of agricultural properties who are *bona fide* farmers.
- [Sub-s. (2) amended by s. 11 (a) of Act 29 of 2014.]”

KwaDukuza (KwaDukuza Municipality, 2018c) and eThekweni Municipalities (eThekweni Municipality, 2018) have provided for exemptions for Indigents: in KwaDukuza all improved residential property valued at R130,000 or less is exempt from paying rates while in eThekweni Municipality, the threshold is R280,000 or less. Umdoni Municipality provides for an application driven exemption where the household income does not exceed R6,000 per month (Umdoni Municipality, 2018). Ray Nkonyeni Municipality (Ray Nkonyeni Municipality, 2018) provides in their policy for indigent owners with an income equivalent of, or less than, two state pensions to receive a hundred percent exemption.

Similarly, the disabled and pensioners have been considered in the municipalities' rates policies.

KwaDukuza Municipality provides for a rebate based on a sliding scale of 25% to 35%, based on the age of the disabled or pensioner (KwaDukuza Municipality, 2018c). eThekweni Municipality allows a fixed rebate of R4,364 for those receiving a disability grant and old-age pension (eThekweni Municipality, 2018). Umdoni Municipality provides the same application driven exemption on rates for the disabled and pensioners as for indigent persons, i.e. where the household income is less than R6,000 per month and the value of the property does not exceed R370,000 (Umdoni Municipality, 2018). Ray Nkonyeni grants pensioners a rebate equivalent to a R200,000 reduction on the value of residential property. It also provides for a deferment of rates for indigent, disabled and pensioners, subject to certain conditions (Ray Nkonyeni Municipality, 2018). This is in line with the practice in Australia where rates are deferred for elderly owners until such time as their property is sold (McLaren, 2014). There is a growing number of elderly caring for their grandchildren who have lost their parents to HIV and AIDS, relying only on an old age pension. There are also a large number of child-headed households due to the impact of HIV and AIDS (Mturi, 2012). These vulnerable members of the community also need to be considered by municipalities when determining categories of owners for rebates and exemptions.

Bona fide farmers are also granted certain rebates in terms of the municipalities' rates policies. Ray Nkonyeni grants a 60% rebate to farmers upon application and the provision of a tax certificate issued by South African Revenue Services confirming taxation as a farmer (Ray Nkonyeni Municipality, 2018).

5.4 Rate randages that will yield optimal income

A comparison of the base rates used in the model and the suggested base rate to achieve the required income of R430,791,000 for KwaDukuza Municipality, based on the respective municipalities policies is shown in Table 5.1.

TABLE 5.1 COMPARISON OF BASE RATES AND TOTAL MODEL INCOME

Policy	Total Rates - Model				Policy Base Rates	Suggested Base Rate
	Agriculture	Commercial	Industrial	Residential		
KwaDukuza Municipality	R3,862,717	R132,164,503	R14,227,941	R313,136,807	0.00741	0.006288
eThekwini Municipality	R12,413,525	R164,777,783	R22,903,535	R531,846,546	0.011191	0.006098
Umdoni Municipality	R11,025,863	R85,666,612	R9,619,228	R400,003,847	0.00994	0.008152
Ray Nkonyeni Municipality	R4,773,376	R113,678,825	R12,347,043	R452,255,074	0.010787	0.007519

Source: Author compiled using information from Rates policies and Rates Modelling Tool

Whilst the rebate for Agricultural properties is highest in respect of Ray Nkonyeni Municipality's Policy (2018) at 60 percent, it is calculated off a higher base rate providing an income of R4,773,376 versus R3,862,717 for KwaDukuza Municipality.

Umdoni and Ray Nkonyeni Municipalities' rates policies (2018) have the lowest income for Commercial and Industrial properties due to a lower rate randage for this category of property. KwaDukuza Municipality has a generous income after a 6 percent rebate for these two categories with eThekwini Municipality's rates policy (2018) yielding the highest income.

Residential rates income is the lowest based on KwaDukuza Municipality's rate randage (2018d). Whilst this is calculated off a higher base rate than eThekwini Municipality, there is a 6 percent rebate and a pensioner's rebate

The income forgone based on the policies is as follows:

TABLE 5.2 INCOME FORGONE BASED ON MODEL DATA

Model Data			
Policies	Income before Exemptions and Rebates	Income after Exemptions and Rebates	Income Forgone
KwaDukuza Municipality	R550,180,511	R464,582,867	R85,597,644
eThekwini Municipality	R834,547,582	R738,236,360	R96,311,222
Umdoni Municipality	R556,811,004	R506,315,550	R50,495,454
Ray Nkonyeni Municipality	R652,995,831	R589,122,038	R63,873,793

The least income forgone is based on the Umdoni and Ray Nkonyeni Municipalities' rates policies. However, Umdoni and Ray Nkonyeni Municipalities have fewer exemptions than KwaDukuza Municipality. eThekwini Municipality has the greatest

income forgone for pensioners rebates, based on a flat rate per household. The 4,3% rebate for pensioners yielded the lowest rebate for KwaDukuza Municipality due to the lower base rate used to calculate the residential rates.

5.5 Conclusion

In this chapter we looked at the specific research objectives as stated in Chapter one in light of the model output. Based on the model output, there is room to adjust the base rate for the rates calculations. However, it should be borne in mind that the model does not cater for all forms of rebates applied in terms of the various rates policies. In the final chapter we will provide our conclusions reached, address limitations and implication for this study and recommendations for future research.

6. CHAPTER SIX : CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

In this chapter the conclusions and recommendations will be discussed. Whilst the model data supports the contention that different rates policies will yield different results when applied to the same valuation roll, it is important that municipalities consider these impacts on their projected income for budget purposes.

This chapter under section 6.2 provides conclusions reached based on the model outputs and presents recommendations to achieve the objectives of this study. Section 6.3 addresses the limitations of this study while section 6.4, in conclusion, considers the implications of this study.

6.2 Conclusion and Recommendations

At the outset of this study, there were three objectives formulated. These were to :

1. identify the most appropriate categories of property to optimise revenue;
2. develop appropriate criteria for exemptions and rebates based on categories of owners; and
3. to determine the most appropriate rate randage to be applied to the various categories of property in the roll.

It is quite apparent from the model output that the greatest income is derived from Residential property by virtue of sheer numbers, albeit not the highest rate randage. This income can be increased marginally by rating Residential property used for holiday accommodation as Residential used for Commercial Purposes and with a different rate randage. The current practice of rating these properties used for holiday accommodation as Commercial risks the loss of potential income derived from tourism to the region as the national economy stagnates.

Commercial property as a category is substantially secondary to Residential property in terms of revenue generated, again purely by virtue of the numbers of property in a category in the roll. The loss of the holiday accommodation revenue should be considered as many Bed & Breakfast establishments are closing down due to the increased service charges levied by some municipalities (eThekweni Municipality levies electricity charges at a business tariff for these properties). The writer is aware

of many timeshare and share block companies converting to sectional title and disinvesting, due to the increased municipal rates and services charges causing this holiday segment to change as owners of these shares are no longer able to afford the levies required to maintain the properties. Tourism brings financial inflows into a regions economy and should be encouraged.

The remaining categories of property, while yielding lesser revenue, are an important factor in the economy of a region. The presence of quarries and mines within municipal boundaries provides an opportunity to rate these properties at a rate somewhere between commercial and industrial, based on the prevailing economy of the region. It is however imperative that municipalities encourage industrial investment within their jurisdiction to increase their rates base. This requires a good knowledge of the economy and how it is performing, with due sensitivity to the financial challenges faced by the owners of these properties.

Places of Worship, Nature Reserves / Protected Areas, are exempt from property rates in terms of the MPRA. Municipalities can also resolve whether to value and rate their own properties.

Certain types of Public Service Infrastructure will no longer be rateable from 2020 due to the phasing out of such rates in terms of the amendment to the MPRA in 2014 (Act 29 of 2014).

In determining the categories of owners for rebates and exemptions, Municipalities need to be sensitive to the needs of their communities, especially insofar as the indigent, disabled, child-headed households and pensioners are concerned. These households usually depend on a fixed income or grant to survive and with ever increasing costs, find it very difficult survive. Reliance on cross-subsidy is usually required to balance the competing needs of society in general, and municipalities in particular.

The Categories of Owners exempt from rates or who receive rebates must include the vulnerable in the community to assist them financially.

The rate randages will always be subject to the particular demographics and economics prevailing within a municipality and will change over time. These factors must be taken into account when formulating a rates policy.

6.2.1 Objective 1 : Categories of Property in a Valuation Roll

To optimise revenue from rates and in addition to the categories of property in terms of Section 8 (2) of the MPRA (2004), it is recommended that the following categories of property be included in a rates policy:

1. Residential used for Commercial Purposes;
2. Farms used for Residential Purposes;
3. Farms used for Commercial Purposes; and
4. Farms used for Industrial Purposes.

A separate rate randage, higher than the primary use category (Residential and Agriculture), but lower than Residential, Commercial and Industrial as secondary use categories be implemented. This will limit the income forgone where a blanket rebate is provided for in a rates policy.

6.2.2 Objective 2 : Categories of Owners for Rebates and Exemptions

It is recognised that municipalities will benefit from making certain rebates application driven. However, cognisance should be taken of the personal circumstances of many of the potential recipients of these rebates and how requiring them to make application each year could impact on their lives, especially if they have to travel long distances to do so. It is perhaps more equitable to provide a fixed rebate based on property value or age as the case may be. Notwithstanding the aforesaid, the municipalities in the study appear to take all the necessary categories of owner into account for exemptions and rebates.

6.2.3 Objective 3 : Rate Randages for Optimal Income

While KwaDukuza Municipality's Rates Policy appears to be well-balanced and takes into consideration the appropriate categories of property and owners, due to the economic, demographic variances, as well as the extent of Traditional Authority land within municipal boundaries, it is difficult to prescribe a rate randage that would be appropriate for all municipalities.

However, the model suggests a base rate of between 0.006288 and 0.008152 to achieve the budgeted income of R430,791,000 for KwaDukuza, based on the policies modelled.

Further research could deliver a more consistent approach, notwithstanding the variables involved in determining a rates policy for a local municipality.

6.3 Limitations of the Study

The Rates Modelling Tool has provided the income achievable based on the subject Municipalities rates policies utilising KwaDukuza Municipality's valuation roll. There are certain limitations as the raw data used in compiling the valuation roll was not available. It must be further noted that application driven rebates could not be taken into account, nor could the actual ages of pensioners be determined for purposes of the rates modelling. However, an assumption on the number of households in KwaDukuza Municipality of persons over the age of 60 years was made based on the demographics for the area. The consequent number of households was reduced to a percentage of the population for application in each municipality's scenario. The registers for Indigent owners and grant recipients (disabled and child grants) are confidential and this information was also not available for modelling purposes.

6.4 Implications of this study

It is in the interests of all stakeholders that a municipality collects sufficient revenue to balance its budget as this will ensure a lower allocation of funds from central government, the provision of reliable services to the community and the well-being of communities. However, it becomes apparent that many municipalities are failing in their constitutional duties due to the lack of human resources and wasteful expenditure, to such an extent that National Treasury has gazetted regulations on cost containment measures to promote better governance and management of finances by municipalities (National Treasury, 2019). It is contended that the development of a suitable model that can be used by a municipality to develop an effective rates policy would contribute significantly to their responsibilities by ensuring sufficient revenue.

6.5 Recommendations for future research

An opportunity for further research and further development of the model to include the various permutations of rebates exists. This would refine the model and could greatly assist the lesser resourced municipalities in their rates modelling for budget and rates policy purposes.

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APPENDIX 1 : ETHICAL CLEARANCE

APPENDIX 2 : TURNITIN REPORT