



Institute of Policy Analysis
and Research - Rwanda

IPAR RESEARCH CONFERENCE

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19th June 2019



City of Kigali Commercial Real Estate Study Findings

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Presentation Outline

- Objectives of the study
- Methodology and Sample
- Findings on Occupancy rates
- Findings on Tenant preferences
- Findings on Commercial Building Rents
- Commercial Property Use by Business Activity
- Understanding the Drivers of Occupancy rates of commercial buildings in Kigali City
- Understanding the drivers of Rents of Commercial buildings in Kigali City
- The Supply side of the Commercial Real Estate market in Kigali City
- Market confidence within Commercial Real Estate Market
- Conclusions and Recommendations



Study Objectives

General Objectives

- Quantitative and qualitative analysis of current and expected market dynamics, highlighting current issues and proposed solutions to achieve better market performance

Specific Objectives

- Analysing of current market dynamics, focusing on current and projected supply, take up trends, pricing, etc.
- Understanding the supply and demand of the commercial real estate market in Kigali city.
- Determining whether the Kigali master zoning regulations have an affect on the pricing and the occupancy rates within commercial real estate markets in Kigali City
- Proposing policy recommendations to improve the performance of the commercial real estate market within the City of Kigali



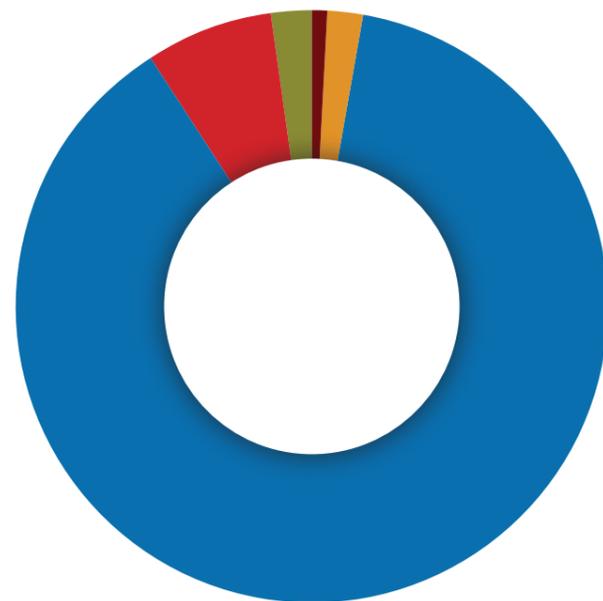
Methodology

- Surveyed 1476 tenants and 456 commercial buildings owners within 9 commercial centers in the city including Nyarugenge (CBD), Nyabugogo, Nyamirambo, Gisozi, Kacyiru, Remera, Kimironko, Nyamirambo.
- Information elicited from commercial real estate survey included;
 - Location specific aspects of commercial buildings;
 - Occupancy rates,
 - pricing in terms of rent and rent components,
 - Commercial real estate by usage type;
 - Construction costs and others;
- Conducted surveys among tenants in order to get some understanding of the demand side within Kigali's Commercial real estate market.
- Key informant interviews with architects, engineers etc.
- Supply side data obtained from Building Permits Information database

City of Kigali Permit application 2015-2018

Type of Permit	Freq.	Percent
Demolition Permit	5	0.1%
Extension of Permit	58	0.7%
Modification Permit	197	2.4%
New Construction Permit	7130	87.8%
Occupancy Permit	559	6.9%
Other Developments Permit	33	0.4%
Renewal Permit	20	0.2%
change of Building Use Permit	130	1.6%
Total	8122	100

City of Kigali Permit application 2015-2018



- 0% Demolition Permit
- 1% Extension of Permit
- 2% Modification Permit
- 88% New construction permit
- 7% Occupancy Permit
- 0% Other Developments Permit
- 0% Renewal permit
- 2% Change of the building Use Permit

City of Kigali Total floor space by Construction Permit(2015-2018

Permit type	Total floor space Sqm	Std. Err.
Extension permit	383,346	92412.48
Modification permit	3,243	
New construction permit	40,400,000	5419256

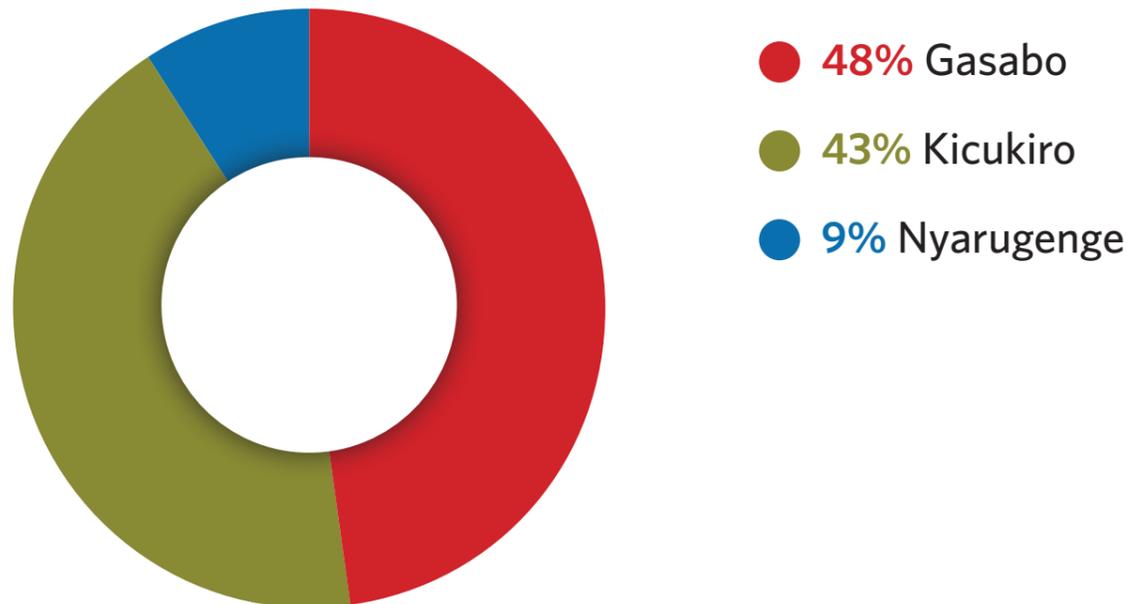
City of Kigali Total floor space Building Use 2015-2018

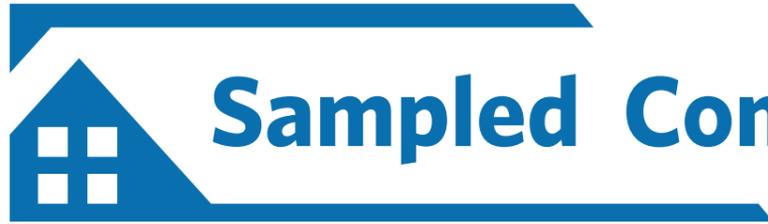
Building use	Total floor space (Sqm)	Percent
Agricultural building	13,137	0.03%
Commercial buildings	8,368,752	20.50%
Educational buildings	751,015	1.84%
Health buildings	328,436	0.80%
Industrial buildings	3,857,076	9.45%
Infrastructure buildings	61,197	0.15%
Mixed use buildiings	815,027	2.00%
Modified Buildings	767,921	1.88%
Office buildings	591,195	1.45%
Residential buildings	24,900,035	61.01%
Social and cultural building	304,906	0.75%
others	56,401	0.14%
Total	40,815,098	100%

Anticipated Floor Space supply by District (2015-2018)

District	Total Floor space	Percent
Gasabo	19,400,000	48%
Kicukiro	17,500,000	43%
Nyarugenge	3,862,285	9%
TOTAL	40,762,285	100%

Anticipated Floor Space supply by District (2015-2018)





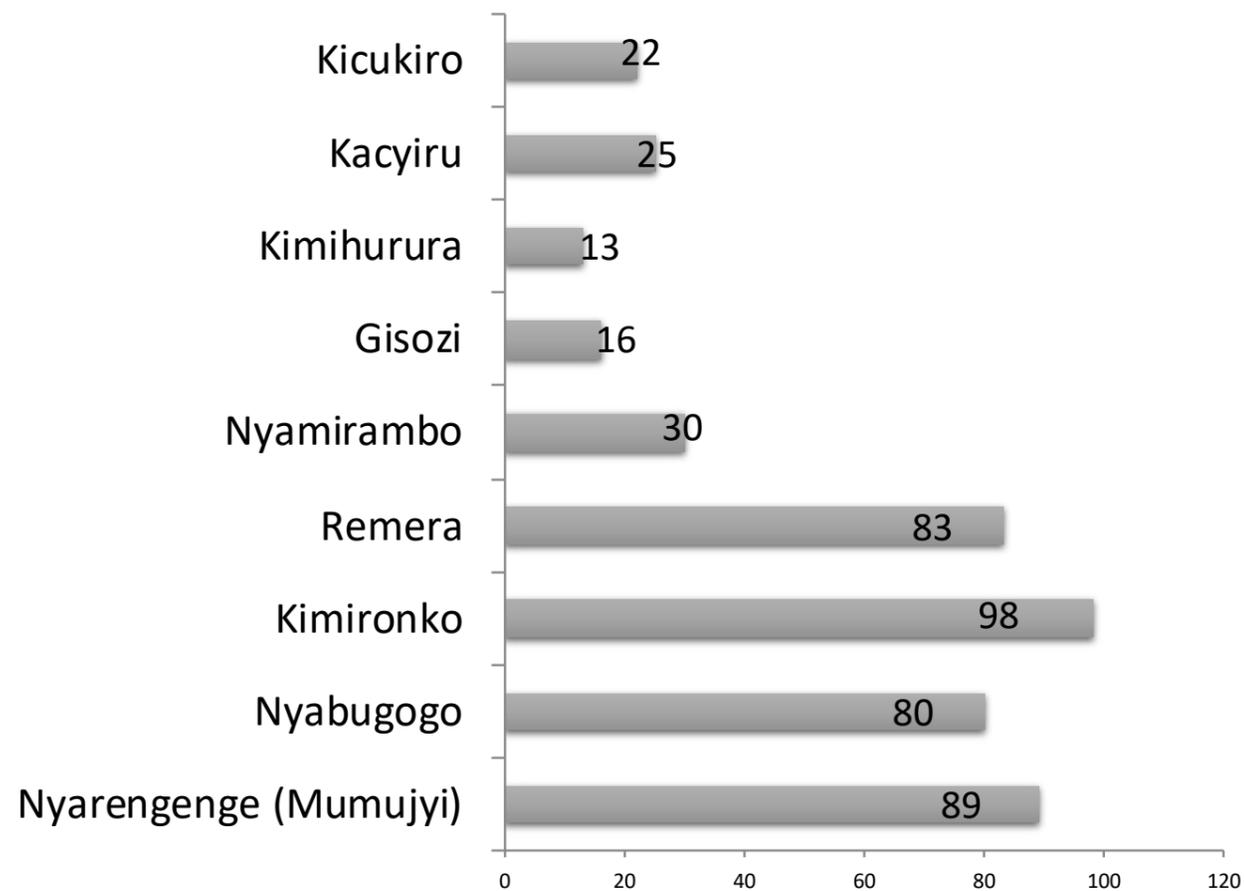
Sampled Commercial Buildings

Table1: Sampled Commercial buildings per District and Commercial center

No.	District	Number of buildings	Percent
1.	Nyarugenge	169	37.1
2.	Gasabo	255	55.9
3.	Kicukiro	32	7.0
Total		456	100.0

No	Commercial Center	Number of buildings	Percentage
1.	Nyarengenge (Mumuji)	89	19.5
2.	Nyabugogo	80	17.5
3.	Kimironko	98	21.5
4.	Remera	83	18.2
5.	Nyamirambo	30	6.6
6.	Gisozi	16	3.5
7.	Kimihurura	13	2.9
8.	Kacyiru	25	5.5
9.	Kicukiro	22	4.8
Total		456	100

Number of buildings sampled per Commercial Center

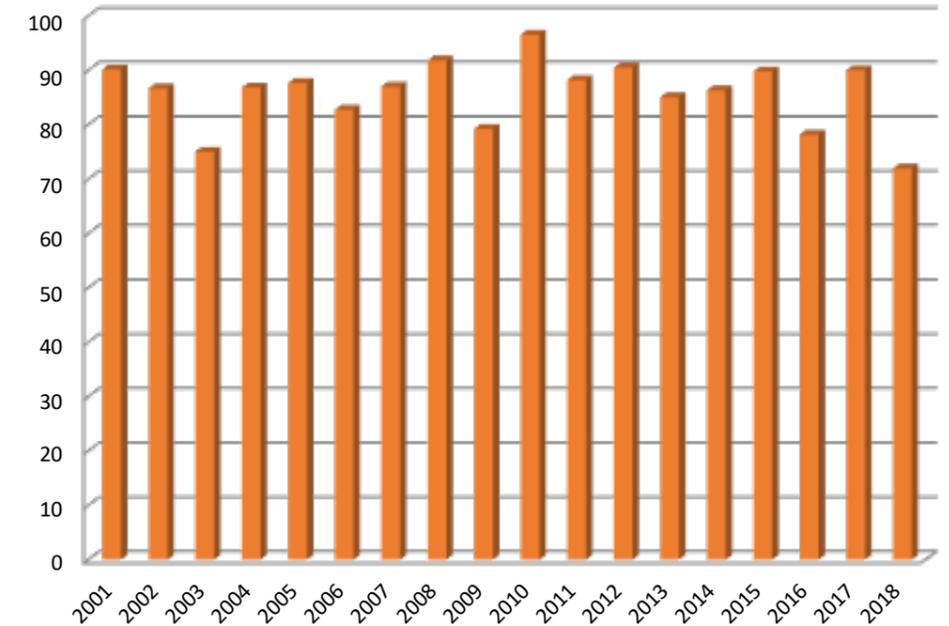




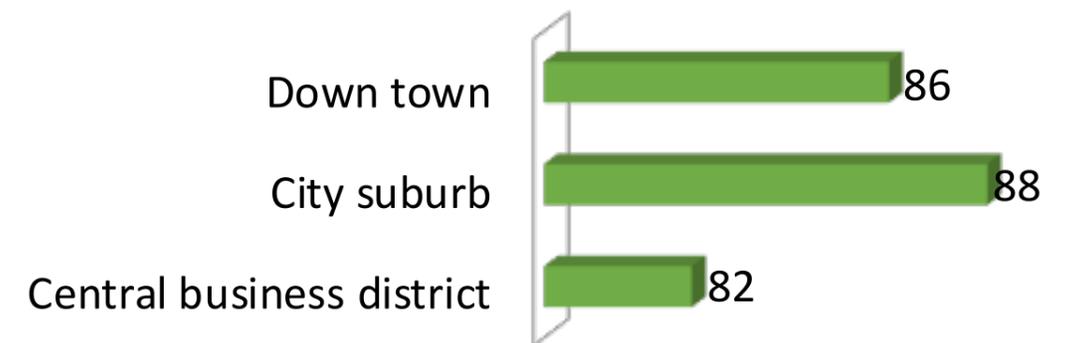
Findings on Occupancy Rates by Commercial Center

Commercial center	Number	Mean
1. Nyarengenge (Mumujyi)	89	82.1
2. Nyabugogo	79	89.5
3. Kimironko	97	86.3
4. Remera	83	93.1
5. Nyamirambo	30	86.4
6. Gisozi	16	77.6
7. Kimihurura	13	84.6
8. Kacyiru	25	89.3
9. Kicukiro	22	75.8
City of Kigali average Occupancy rate	454	85

Occupancy rates by Year Building was Opened for Business



Mean Occupancy rates by Metropolitan Statistical Area(MSA)



- Comparing Occupancy rates for buildings opened before and after 2012, there is a declining trend in occupancy rates after 2012.
- Occupancy rates are higher for buildings located in city suburbs and down town when compared to CBD



Findings on Occupancy Rates by Commercial Center

Commercial Center	Buildings occupied below 50%	Average Occupancy
Nyarengenge CBD	14	38
Nyabugogo	9	20
Kimironko	11	21
Remera	4	42
Nyamirambo	2	31
Gisozi	4	31
Kimihurura	2	0
Kacyiru	3	33
Kicukiro	5	20

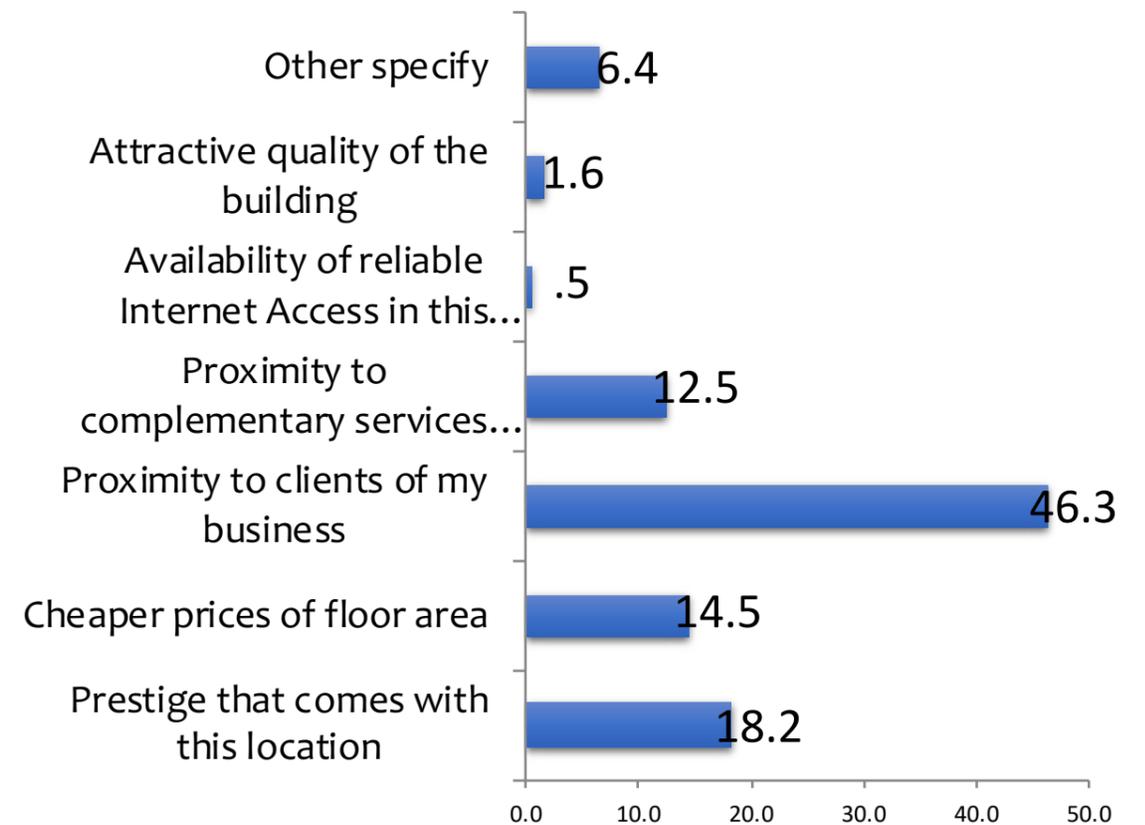


Findings on Tenant Preferences when renting Commercial Buildings

Reasons for renting buildings

Reasons	Number of tenants	Percentage
Prestige that comes with this location	269	18.2
Cheaper prices of floor area	214	14.5
Proximity to clients of my business	683	46.3
Proximity to complementary services to my business	184	12.5
Availability of reliable Internet Access in this building	7	0.5
Attractive quality of the building	24	1.6
Other specify	95	6.4
Total	1476	100

Reason for renting this building for your business purpose



- Proximity to clients ranks highest with (46% of tenants), while location prestige comes second with 18% of tenants. Given that client proximity and prestige are factors, location, design and quality of commercial buildings seem to matter more than price.
- Surprisingly, cheaper rents comes a distant 3rd with only 14.5% of client considering as a key criteria when renting commercial space. There is more to price of commercial rental space.



What factors drive Occupancy rates in Kigali City?

Regression Analysis

$$OR = \beta_0 + \beta_1 YB + \beta_2 PS + \beta_3 IR + \beta_4 AV + \beta_5 TB + \beta_6 FS + \beta_7 LnMR + \beta_8 C + \beta_9 I + \beta_{10} S + \beta_{11} EA + \beta_{12} R1 + \beta_{13} R2 + \beta_{14} R3 + \beta_{15} CBD + \beta_{16} DT + \beta_{17} CSU + \beta_{18} + \varepsilon \dots \dots \dots (2)$$

- where
- OR: Occupancy Rate
- YB: Year in which commercial building was opened
- PS: Parking space
- IR: Included in the rent (electricity, water...)
- AV: Average vacancy before new tenant moves in
- FS: Source of funds used to construct commercial building
- TB: Types of business renting the building
- MR: Monthly rent
- C: Commercial
- I: Industry
- S: Social
- EA: Economic Administration
- R1: Single Family Residential District
- R2: Low Rise Residential District
- R3: Medium Rise Residential District (R3)
- CBD: Central Business District
- DT: Down Town
- CSU: City Sub Urban



Findings on drivers of Occupancy rates in Kigali City

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. reg OR_occupancy_rate billsincluded remera gatsata R1 R3
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Source	SS	df	MS	Number of obs	=	454
Model	28643.951	5	5728.79021	F(5, 448)	=	10.12
Residual	253692.18	448	566.277186	Prob > F	=	0.0000
Total	282336.131	453	623.258566	R-squared	=	0.1015
				Adj R-squared	=	0.0914
				Root MSE	=	23.797

OR_occupanc~e	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
billsincluded	-10.17916	2.752602	-3.70	0.000	-15.58878 -4.769549
remera	9.766986	3.142558	3.11	0.002	3.591 15.94297
gatsata	15.51382	5.001264	3.10	0.002	5.684975 25.34267
R1	14.73227	4.476395	3.29	0.001	5.934934 23.52961
R3	-11.24962	3.127039	-3.60	0.000	-17.3951 -5.104132
_cons	87.27777	1.510328	57.79	0.000	84.30957 90.24598

- Being in Remera, being in Gatsata, being in an R1 zone increases occupancy rates.
- Factors that decrease occupancy rates: having electricity and/or water bills included in the rent bill (dummy of 1 for yes and 2 for no) and being in an R3 zone.



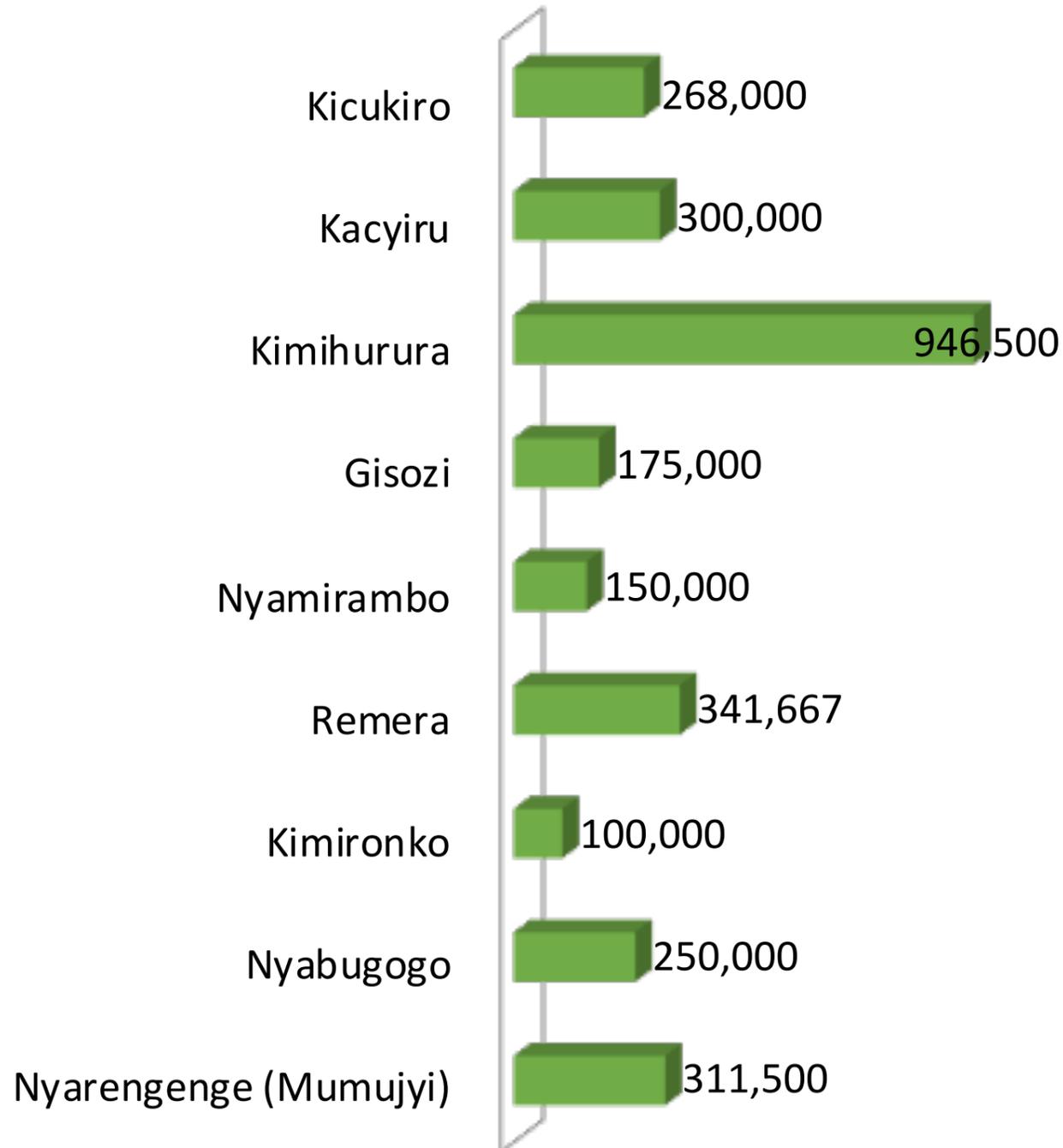
Findings on Commercial Building Rents

Monthly Rent per unit by Commercial Center (Rwf)					
Commercial center	N	Minimum	Maximum	Mean	Median Rents
Nyarengenge (Mumujiyi)	88	8,644	6,000,000	490,022	311,500
Nyabugogo	77	30,000	1,800,000	264,744	250,000
Kimironko	94	-	2,000,000	212,714	100,000
Remera	82	1,500	8,200,000	693,249	341,667
Nyamirambo	28	45,000	1,200,000	233,750	150,000
Gisozi	16	35,000	500,000	188,125	175,000
Kimihurura	10	-	2,000,000	921,050	946,500
Kacyiru	24	60,000	9,000,000	808,182	300,000
Kicukiro	22	50,000	3,613,400	658,609	268,000



Findings on Commercial Building Rents

Median rents in Rwf per Unit by Commercial Center



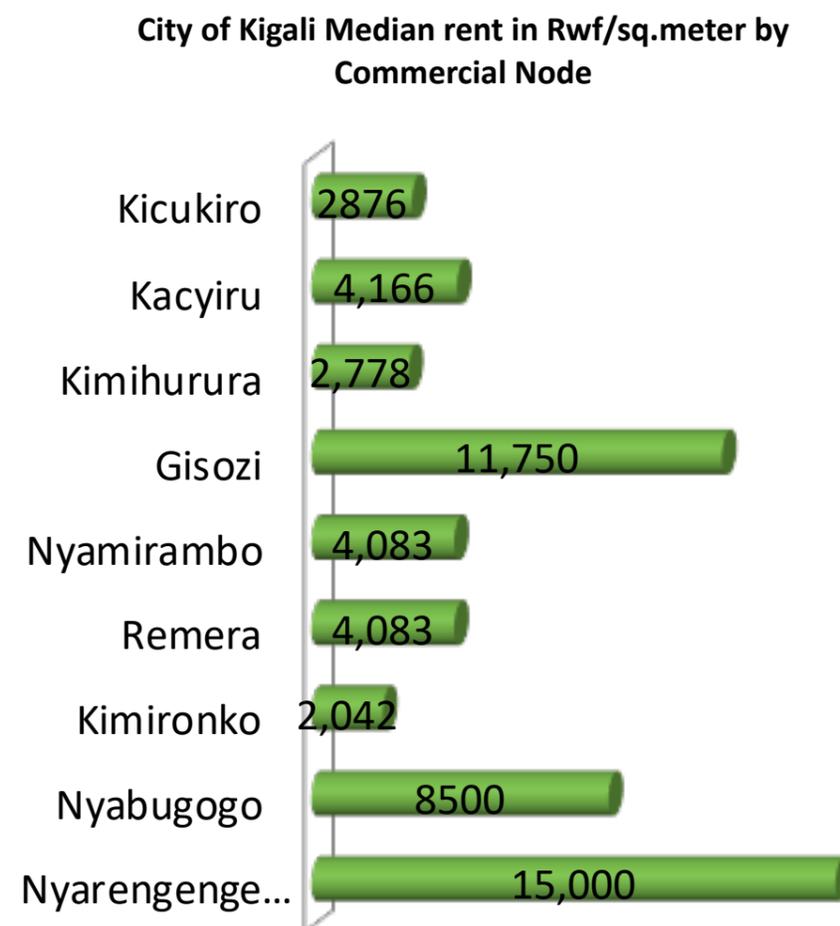
- Given that average rents are affected by the maximum and minimum rents in a given center, we consider median rents as a more reliable statistic for commercial rental space
- .The city surburbs of Kimironko, Nyamirambo , and Gisozi have the lowest median rents for commercial space per unit per month at 100,000Rwf, 150,000Rwf , 175,000Rwf and 250,000Rwf respectively.
- Medium rent commercial centers include Nyabugogo, Kicukiro, and Kacyiru with median rents of Rwf 250,000, 268,000,and 300,000 respectively
- High rent centers include Kimihurura, Remera and Nyarugenge with median rent per unit per month of 946,500Rwf, 341,667 and 311,500 respectively



Findings on on Commercial Building Rents per Square meter

Median rent cost per square meter (Rwf) by Commercial node

Commercial center	N	Median Rent(Rwf/sqm)
Nyarengenge (Mumuji)	89	15,000
Nyabugogo	80	8500
Kimironko	98	2,042
Remera	83	4,083
Nyamirambo	30	4,083
Gisozi	16	11,750
Kimihurura	13	2,778
Kacyiru	25	4,166
Kicukiro	22	2876



- Nyarugenge and Gisozi have the highest median rent per sq per month at 15,000Rwf and 11,750Rwf respectively.
- City suburbs of Kimironko, kicukiro have lower median rents ranging between Rwf 2000 and Rwf 2900.



What factors drivers Commercial Real Estate Rents in Kigali City? Regression Analysis

$$\begin{aligned} \ln R = & \beta_0 + \beta_1 YB + \beta_2 LB + \beta_3 ZB + \beta_3 IR + \beta_6 AV + \beta_7 PS + \beta_8 HB + \beta_9 PUT + \beta_{10} FS \\ & + \beta_{11} RY + \beta_{12} \ln MC + \beta_{13} \ln CB + \varepsilon \dots (3) \end{aligned}$$

where

- R: Rent (proxied by average rent per square meter)
- YB: Year in which commercial building was opened
- PS: Parking space
- ZB: Zoning of commercial building in the terms of 2013 City of Kigali Master plan.
- LB: Location of the commercial building
- IR: Included in the rent (electricity, water...)
- AV: Average vacancy before new tenant

moves in

- SF: Source of funds used to construct commercial building
- TB: Types of business renting the building
- HB: Height of building in terms of number of floors
- PUT: Property Usage Type
- RY: Renovated Year
- MC: Maintenance Cost
- CB: Cost of buildings



Findings on drivers Commercial Real Estate Rents in Kigali City

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. reg averagerent averagevacancy viable_med_term costofland multipurpose cbd nyarugenge
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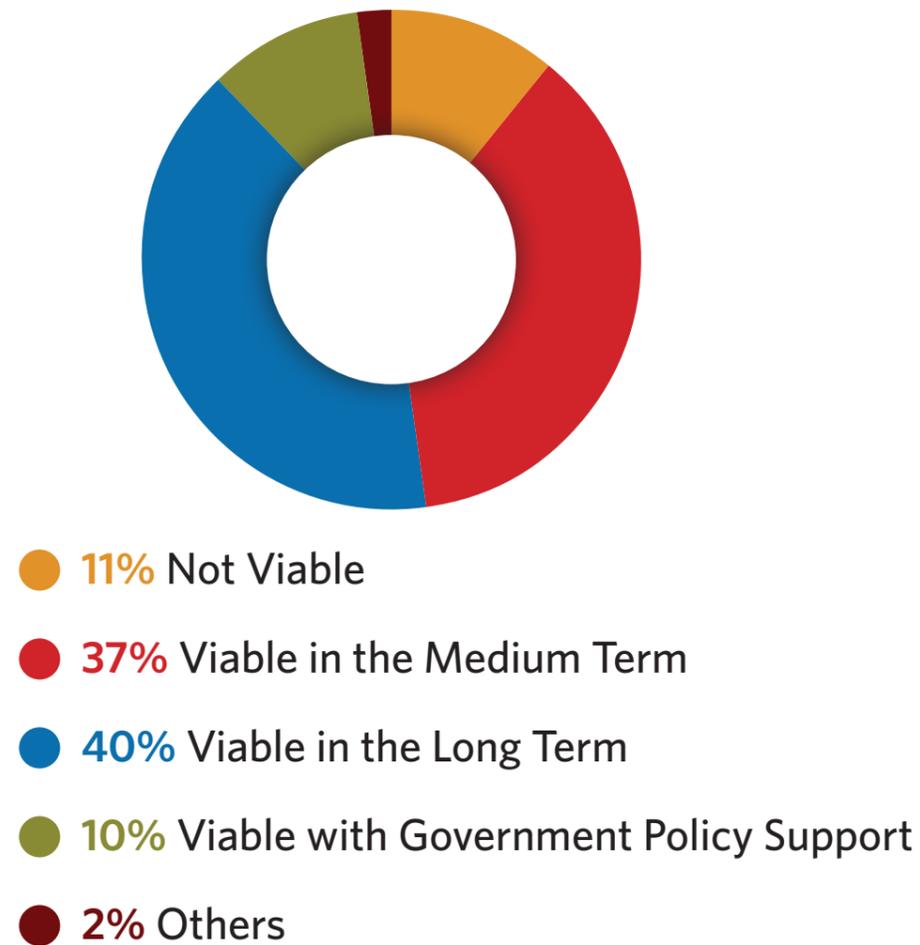
Source	SS	df	MS	Number of obs	=	456
Model	1.5920e+12	6	2.6533e+11	F(6, 449)	=	18.90
Residual	6.3024e+12	449	1.4036e+10	Prob > F	=	0.0000
Total	7.8943e+12	455	1.7350e+10	R-squared	=	0.2017
				Adj R-squared	=	0.1910
				Root MSE	=	1.2e+05

averagerentpe~m	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
averagevacancy	-2450.378	1500.62	-1.63	0.103	-5399.49 498.733
viable_med_term	33811.86	11610.12	2.91	0.004	10994.93 56628.78
costofland	-.0001039	.0000403	-2.58	0.010	-.0001831 -.0000247
multipurpose	83809.11	18866.52	4.44	0.000	46731.47 120886.8
cbd	75547.59	16975.4	4.45	0.000	42186.5 108908.7
nyarugenge	86408.63	19532.09	4.42	0.000	48022.97 124794.3
_cons	15003.77	8543.89	1.76	0.080	-1787.203 31794.75

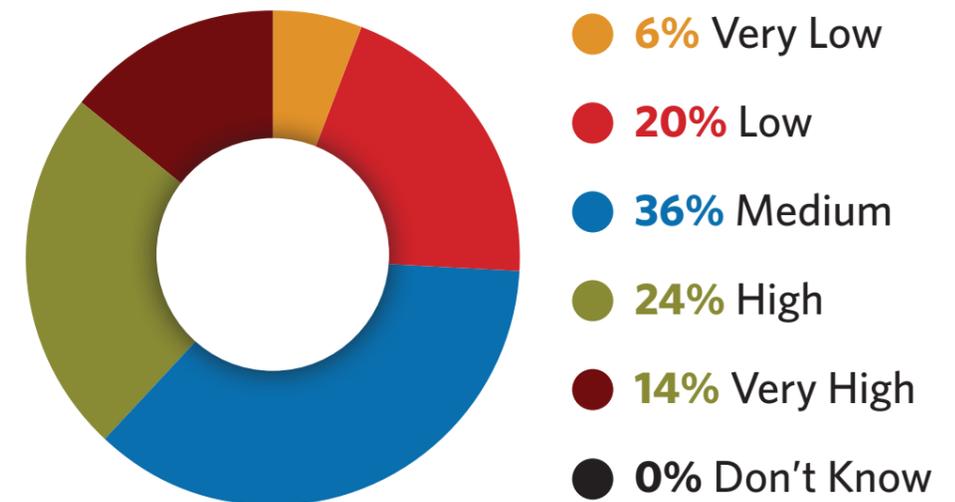
- Multipurpose buildings, buildings in the CBD, buildings in Nyarugenge, and buildings whose owners think are viable medium term , have higher rent,
- Buildings for which the average vacancy time is higher, and the cost of land is higher, have lower rent (magnitude of each effect is also important).

Owner Assessment of Commercial Viability and Confidence in Commercial Real Estate industry

Owner Assessment of Commercial Viability of Buildings



Owner assessment of confidence in Commercial real estate sector



- Majority of owners think that building will be commercially viable in the medium(37%) and long term(40%) . 10% need government policy support to improve viability
- Confidence in commercial real estate market is mainly medium(36%) to low (25%) among building owners



Conclusions & Recommendations

- Affordable rent costs for the majority of small and medium enterprises
- Increased need to accommodate low income SMEs in gazetted areas
- Zoning regulations matter: Flexibility of zoning regulations in order to respond commercial real estate market demands;
- Need for more flexibility in zoning when it comes to incremental commercial real estate development
- For tenants, rent is not the main consideration for taking up commercial space; proximity to clients and prestige of the building location matter as well.



Conclusions & Recommendations

- There are gaps in communicating changes in zoning and building regulations affects rates of return on commercial building which have financed by loans
- Financing landscape involves banks recovering about 3 times the principal on commercial real estate loans. This puts upward pressure on rental prices for developers to recover bank loans
- Maintain regulations to restore order while keeping an eye on realities involved in mobilizing funds for commercial real estate projects (profitability issues)

Murakoze!