The location and the nature of Airbnb listings in Johannesburg and their impact on property prices and the availability of long term rental stock

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DECLARATION

I declare that this is my own unaided work. It is being submitted for the requirements of the Degree of Masters in Development Studies (by coursework and research report), at the University of the Witwatersrand, Johannesburg. It has not been submitted for any degree or examination at any other university.

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Date

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List of Abbreviations

CBD- Central Business District

CoJ- City of Johannesburg

CPI- Consumer Price Index

FEDHASA- The Federated Hospitality Association of South Africa

FNB- First National Bank

MEC- Minerals and Energy Complex

NDP- National Development Plan

RDP- Reconstruction and Development Programme

SAPOA- South African Property Owners Association

SDF- Spatial Development Framework

TBCSA- Tourism Business Council of South Africa

TMR- Transformation, modernisation and reindustrialisation

UK- United Kingdom

USA- United States of America

USD- US Dollar

WTTC- World Travel and Tourism Council

ABSTRACT

The popularity of the digital or the 'shared economy' has become almost ubiquitous amongst the middle and upper classes in developing and developed countries. Many people wonder how they managed before ride hailing applications such as Uber and short-term accommodation rental applications such as Airbnb. These technologies have changed the face of commuting and travelling within cities as well as travel for business people and holiday makers. Despite the relative novelty of these technologies, there have been concerns raised about their impact on labour rights and housing prices in some countries. Regulators in several of the world's tourism hotspots such as London, New York and Amsterdam have stepped in to create controls around Airbnb to mitigate concerns about rising property prices affecting locals.

In South Africa, there has been anecdotal reportage in the media about the link between the popularity of Airbnb and rising property prices in Cape Town. While Cape Town has received more attention, the number of Airbnb listings in Johannesburg is growing, though still relatively small compared to other metropolitan cities in the world. No large-scale study has been undertaken into the phenomenon in both cities by government authorities or academic scholars. This research report looks at the nature and location of Airbnb listings in Johannesburg as well as data on rental and property prices in Johannesburg and nationwide over the last five years.

In the report, I also make use of interviews with real-estate agents and city planning authorities to consider whether Airbnb has impacted housing prices or spatial patterns. This report concludes that most Airbnb listings are located within areas in Johannesburg that are already well connected to economic opportunities and infrastructure. In addition, the research shows that Johannesburg, a city in a state of flux and ever evolving, is not like cities within developed countries with relatively stable economies. Due to difficult economic conditions in recent years and weaker property prices as well as rental incomes, it is not possible to find a correlation between the rise of Airbnb and property prices.

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CHAPTER ONE

INTRODUCTION

This research report looks at Airbnb's impact on the Johannesburg housing market. Airbnb's rise internationally and in South Africa has captured a great deal of media attention, both positive and negative. While there has been some media reference to Airbnb's impact on cities such as Cape Town and Johannesburg, there have not been any studies of its impact on Johannesburg. In this research I provide the history of the short-term rental accommodation application, globally and in Johannesburg. The reports questions whether Airbnb's growth in the city has impacted housing prices and the availability of long-term rental stock for residents.

Airbnb is perhaps one of the most well-known short-term accommodation digital applications[1] and is growing as a travel phenomenon around the world and in South Africa. Hundreds of thousands of people around the world rely on the application to book both business and leisure travel trips. Others use the platform-based technology to generate extra income from their homes. It has also been a form of investment by individuals and businesses who have multiple properties on the site and operate in the hospitality industry, without many of the regulations that businesses within the traditional sector face.

Cape Town, a key tourism destination in South Africa had 20 305 active Airbnb listings in December 2018 (AirDNA, 2018). The number of listings in Johannesburg is far lower than this but has been steadily increasing with 5 271 active rentals as per December 2018, from 90 in 2010 (Airdna, 2018). This represents a 550 percentage increase in eight years. Cape Town, the second most populous city in South Africa had a population of 3.8 million people in 2016, below Johannesburg's population of 4.4 million (World Population Review, n.d.). These figures indicate there is a much higher number of listings per capita in Cape Town, than

[1] The digital economy is also referred to as peer-to-peer, collaborative and shared economy in various academic texts. It is a set of practices that facilitate trusted transactions between strangers on a digital platform (Lobel, 2016). As there are debates as to whether these practices are in fact shared due to their profit taking nature, the study refers to on-demand online applications as the 'digital economy' and considers the arguments around the phrasing of the digital economy in Chapter Two.

Johannesburg. Cape Town also has more Airbnb listings than popular tourism hotspot Barcelona in Spain, Barcelona which had 17 719 active rentals as of December 2018 (AirDNA, 2018). Barcelona's administrative area had a relatively small population of 1.7 million in 2016 (World Population Review, n.d.) indicating a very high number of Airbnb listings per capita. The effects of Airbnb on Barcelona's housing market and residents will be discussed further in Chapter Two. This study focused on Johannesburg and property economists interviewed in this study said they did not believe Airbnb has impacted the property market in either Cape Town or Johannesburg.

Airbnb listings in South Africa trail behind other major metropolitan cities such as London in the United Kingdom which had 60 979 listings and New York City in the United States of America, which had 39 713 listings as of December 2018 (Airdna, 2018). London and New York however have higher populations than Johannesburg and Cape Town with London's population estimated to be 8.7 million in 2016 and New York's population counted at 8.5 million (World Population Review, n.d.)

The story of Airbnb's rise in popularity is similar to other start-ups which have seen phenomenal success, such as Facebook and Uber. Airbnb, established in San Francisco, California in 2008, famously began with two founders Joe Gebbia and Brian Chesky, who were struggling to pay rent on their apartment. There was a massive design conference being held in San Francisco in 2007 and the city's hotels were fully booked and the pair decided to rent out three airbeds on the floor of their flat and cook their guests breakfast (Salter, 2012). The name of the company, Airbnb, is thus short for airbed and breakfast. The application has since seen tremendous growth and there are reports of a stock exchange listing soon. According to Team, Trefis & Speculations (2018), the hospitality sharing application was valued at $31 billion (R426.25 billion)[2] during its last round of private fund raising in March 2017 and operates in 81 000 cities with nearly five million accommodation options around the world. Airbnb also has a higher valuation than many international hotel chains such as the Hyatt or the Marriott (Team et al.,2018) and much is made of the fact that the company does not own any beds but is worth more than decades old hospitality multinationals.

[2] The exchange rate calculated in this study is at an average of R13.75 to the USD in 2018 (exchange rates-org, 2018)

The technology behind Airbnb is an internet-based peer-to-peer marketplace that allows individuals to list, discover, and book nearly five million accommodation listing in over 81 000 cities across the world (Airbnb press room, n.d). The platform acts as an intermediary between guests and hosts to reduce the risk and cost of offering a home as a short-term rental option. Airbnb derives revenue from both guests and hosts for the service it provides. Guests pay a service fee of between five percent to nine percent for each reservation they make, depending on the length of their stay, and hosts pay a three percent service fee to cover the cost of processing payments. Airbnb is not the first service to act as an intermediary in this way. There are other examples of technology for short-term accommodation such as Bookings.com and HomeAway but they are less popular than Airbnb. This can be seen in data traced by short-term accommodation performance website AirDNA (January 2019). According to AirDNA (January 2019), 98 percent of short-term rental accommodation in Johannesburg, with over 5 000 listings in the city are on Airbnb and just one percent are on HomeAway. Airbnb's user friendly technology, extensive database of listings, and rapid growth have become a popular tale of a startup idea while also a concern for regulators internationally, particularly in developed[3] countries.

Airbnb has an ambitious vision and the website details that its "mission is to create a world where people can belong through healthy travel that is local, authentic, diverse, inclusive and sustainable" (Airbnb, 2018, para.1). The short-term accommodation application is described in various literature as a house-sharing app, a short-term accommodation platform, a peer-to-peer accommodation site, a disruptor, part of the sharing economy and part of the digital economy. There are both positive and negative effects associated with Airbnb which this report will explore further. The positive aspects are seen as providing people with an opportunity to earn extra income from their largest and often most expensive asset, their homes. It is also viewed as providing more affordable, convenient and authentic travel experiences compared to the traditional hotel industry. However, Airbnb is also described in a negative light in numerous media articles internationally and several covering Cape Town. The negative media coverage centres around concerns from the traditional hotel sector and regulators that

[3] The World Economic Situation and Prospects (WESP) Report, a project of the United Nations, classifies South Africa as a developing, middle-income country. In the report, countries are classified by their level of development as measured by their per capita gross national income (GNI), as measured by the World Bank (WESP, 2018). There are a number of terms associated with developing countries such as 'low and middle-income' and emerging markets. A developing country can be defined as one that scores relatively low on the Human Development Index (HDI) and has low levels of industrialisation (MBN, n.d.).

Airbnb is circumventing paying taxes and undercutting traditional tourism platforms while also leading to an increase in property prices and a shortage of long-term rental stock for residents in urban areas. Some international cities such as London, New York and Barcelona have instituted regulations for short-term rentals to try prevent the negative effects.

In a developing country like South Africa, there has only been anecdotal research on the impact of Airbnb rentals on the Cape Town housing market and no research conducted in Johannesburg. This report will consider the response by the City of Johannesburg's authorities to the short-term rental accommodation. Based on interviews with Johannesburg officials, the research shows that they have not planned for it and have not attempted to study its impact. One of the sectors which is affected by Airbnb is the traditional hotel industry and the Tourism Business Council of South Africa (TBCSA) called for government to regulate Airbnb, citing unfair competition as it believes the digital platform largely bypasses regulations and taxation (Njobeni, 2018).

The context of where Airbnb operates is also of importance. This report considers Johannesburg which is the economic powerhouse of Africa. The city still retains much of the structure of apartheid planning and spatial patterns, nearly 25 years after democracy, for reasons which will be discussed in Chapter Three. The city is also ever changing and evolving while still retaining remnants of the apartheid structure. The economic power has largely shifted away from the Johannesburg Central Business District (CBD) to Sandton and the broader Northern Suburbs. Bremner (2010) writes that black people in the large majority continue to live in townships on the edge of the city, with one exception being Alexandra township, close to Sandton. Furthermore, Sandton and the surrounding suburbs are difficult and expensive to reach for people living on the edges of Johannesburg due to a lack of affordable and reliable public transport. The decline in the CBD as an economic centre with well-established transport routes and a central location has decreased accessibility to economic opportunities. This report will consider the nature and location of Airbnb listings, largely clustered in the prosperous Northern Suburbs with pockets of listings in the CBD or in Jeppestown, on the eastern edge of the CBD which are becoming more attractive to middle and upper income consumers due to gentrification[4]

[4] Sociologist Ruth Glass in 964 is credited for coining the term gentrification as a description for working class neighbourhoods undergoing change, when middle and upper income classes occupy it (Hamnett & Williams,2013). Maboneng in Jeppestown, surrounded by hostels and poor areas has been described as part of a global trend of gentrification (Myambo,2017)

This report further considers whether Airbnb's rise in Johannesburg has had any impact on housing prices and the availability of long-term rental stock, key concerns for other international cities in the developed world. The study makes use of interviews with real estate agents, property economists, government officials and data from housing price and rental income websites. This report aims to provide a clear picture of where Airbnb listings are in Johannesburg. They are largely in the middle to upper income areas, which historically had access to economic opportunities and amenities. Furthermore, the report shows that Airbnb has not had an impact on housing prices in Johannesburg, which contrasts markedly to studies on international experience where Airbnb has impacted on housing prices. While my research suggests that the housing prices in Johannesburg have not been affected by Airbnb, the reasons are difficult to ascertain as the country and the city have experience tight economic conditions over the past few years. Whatever the impact, the issue of Airbnb is not yet on the radar of the City of Johannesburg and there seems to be little planning for a massive rise in Airbnb's listings and the possible effects this could have on the city's housing market.

Research questions

This research has two primary questions: What is the location and the nature of Airbnb listings in Johannesburg? And do they have an impact on property prices and the availability of long-term rental stock?

Outline of Report

In the next chapter, Chapter Two, I engage the literature on the digital economy, which focuses on the debates, whether it has positive or negative effects on societies and countries and whether these technologies lower barriers of entry or create new sites of accumulation for those who already have resources. This chapter also delves into arguments over the phrasing and labelling of the digital economy. In this chapter, I consider the studies conducted on the effect of Airbnb internationally and the application's impact on housing prices, rental prices and the traditional hotel industry. As the importance of the digital economy grows , it is important to study the phrasing of the services that they offer and whether they are presented as positive or negative. It is further of relevance to consider the impact that these digital applications have on people and economies. The study of the impact of the digital economy in general and Airbnb in particular, in developing countries has thus far been relatively new. This chapter further examines the regulatory environment Airbnb faces in many tourism hotspots in developed countries. The literature also considers the importance and linkages between tourism and Airbnb and this sector's growth in South Africa.

Chapter Three, 'Johannesburg: a city in transition', delves into the history of spatial patterns in the city, since it was founded after the gold rush in 1886. Racial divisions have existed since then, both during the segregation years and the later apartheid era. This chapter considers the continuation of these spatial patterns 25 years into democracy. I further examine the changing nature of Johannesburg's economy away from mining and manufacturing to the services industry and the impact this has had on planning and the vision for the city to be 'World Class'. Lastly, this chapter considers the various plans by national, provincial and national spheres of government to change the spatial patterns in the country's economic hub. It is important to consider the spatial patterns of Johannesburg when undertaking a study of Airbnb in the city as this is a short-term accommodation applications and has impacted the housing market in other countries where it has been studies, as discussed further in Chapter Two. The unique history of colonialism, the Gold Rush and apartheid structured Johannesburg spatial patterns, housing patterns and prices. It is therefore crucial to consider the history of Johannesburg spatial patterns as well as the current plans by various spheres of government when undertaking a study of Airbnb in the city.

Chapter Four, 'Airbnb: a Johannesburg Story', details the nature and location of the 5 271 Airbnb listings in Johannesburg. In this section, I demonstrate that the majority of Airbnb listings are located in areas with high average incomes and low unemployment rates. The exception to this are the Airbnb listings in gentrifying areas in and around the Johannesburg CBD. The data shows that Airbnb listings reinforces existing legacies of unequal economic opportunities in Johannesburg. I also consider whether the composition of Airbnb in Johannesburg is a room within a house or flat or whether it is an entire dwelling place. This is relevant to the study as international examinations of Airbnb show that the short-term rental of entire homes can lead to property price increases and several cities have regulations for this, whereas a room in a house is seen as an extra source of income for the homeowner or tenant and international regulators have not been as eager to ascribe this phenomenon to housing price increases or rental stock shortages.

Chapter Five, "Airbnb: Housing Prices and Rental Stock', considers the impact of Airbnb on Johannesburg's housing market. Through interviews with property economists and real-estate agents, I show that Airbnb has not had a discernible impact on housing and rental prices in Johannesburg and the availability of long-term rental stock. Due to weak economic conditions in recent years, affecting both housing prices and rental incomes, it is not possible to isolate Airbnb as a contributing factor to changes in the housing market in South Africa, unlike other studies internationally which were undertaken during relatively stable periods in the housing market.

Research methodology

In order to answer my questions, different information was needed. I first had to locate the neighbourhoods and areas where Airbnb listings exist in Johannesburg. I then had to see if these were rooms, apartments, homes or some other type of rental. Once I was confident of the areas in which Airbnb has a large number of listings, I sought to find out the impact this has on property prices and availability of rental stock. There was no available data on the correlation between housing prices and long-term rental stock availability and Airbnb listings. I therefore had to use various methods to collect the necessary data. Qualitative interviews were conducted with real estate agents operating in selling properties and those in rentals. All the estate agents approached were located in areas with high number of Airbnb listings. Following several interviews where estate agents in both sales and rentals said Airbnb was not having an impact on the property market, I sent emails to other real estate firms to survey this in the form of questions. They all replied they had not noticed any impact to the housing market.

The study also makes use of semi-structured interviews with property economists and asked whether Airbnb has an impact on housing prices or the availability of rental stock in areas with a high number of Airbnb listings. These interviews were conducted as property economists have a far broader view of the property market than estate agents focusing on specific neighbourhoods. Qualitative methods were also used in interviews with the City of Johannesburg's urban planning unit to consider the vision of the city for areas with a high number of Airbnb listings. The semi-structured interviews with City of Johannesburg officials were also aimed at finding out whether they have studied Airbnb's impact on the housing market and whether there are any plans to regulate the application.

This study aimed to find out which sectors have been affected by Airbnb and interviewed three residential property developers in areas with a high numbers of Airbnb listings to consider whether the application is a factor in investment in these neighbourhoods. I also interviewed ward councillors in areas with a high number of Airbnb listings to ascertain whether there had been any impact to residents from Airbnb listings and whether any residents had commented about the short-term rental application.

Below is a table listing the various interviews I conducted for this study, the types of interviews conducted, the dates they were held and the location

Table 1: list of interviews conducted for this study

Interviewee	Type of interview	Date	Place
City of Johannesburg Officials 1 & 2	Personal Interview	15 November 2018	Braamfotein
Developers 1-3	Telephonic Interview	20 -21 September	N/A
Estate Agent 1	Personal interview	6 September 2018	Hyde Park
Estate Agents 2-5	Email interviews	1-6 September 2018	N/A
Property economist 1	Telephonic interview	15 November 2018	N/A
Property economist 2	Telephonic interview	15 November 2018	N/A
Ward councillor 1-3	Telephonic interview	1-2 September 2018	N/A

I make use of data from Airdna, a website used by investors, property developers and academics for data and analytics to consider the occupancy rate, popular periods and short-term rental prices in cities and neighbourhoods around the world. According to the website's information page, "AirDNA presents market reports and other data products that feature occupancy rates, seasonal demand, and revenue generated by short-term rentals" (AirDNA n.d, para. 1). AirDNA provides this data at a cost of $100 (approximately R1 375) for a month of access. AirDNA tracks the performance of over 10 million listings in 80 000 markets in the short-term accommodation market. The website tracks Airbnb in Johannesburg which has 98 percent of all short-term accommodation listings on Airbnb and just 1 percent on another holiday booking application, HomeAway. AirDNA measures data on several issues pertaining to short-term accommodation rental. These are the number and location of Airbnb listings in Johannesburg, the overall pricing in areas, the occupancy rate and seasonality. This report analyses the data for descriptive purposes and draws conclusions based on the location of Airbnb listings largely in middle to upper income areas as well as the pricing and occupancy rating which are affected by the location of the listing.

This study also used data from Census 2011, by Statistics South Africa and collated by mapping website Wazimap to consider the average annual household income, unemployment rate and living conditions in areas with a high number of Airbnb listings. The data is compared to other areas in Johannesburg which are centrally located, such as Alexandra township which is close to Sandton and areas around the CBD , such as Berea and Yeoville. All these areas are shown to have a low number of Airbnb listings. The study also considers data from areas which are far from economic networks such as Soweto which has very few Airbnb listings and Orange Farm which has none. Neighbourhoods with few or zero Airbnb listings also generally have higher unemployment rates and lower average household incomes. The exception to this is shown by the data in Maboneng and Marshalltown , areas on the edges of the CBD which have recently been gentrifying and represent isolated pockets of prosperity in the CBD.

The data used to assess living conditions in Johannesburg was from Census 2011, which was the last census conducted by Statistics South Africa. This was almost 10 years ago and as the city is constantly in flux, this is relatively dated. I deemed data pertaining to internet access from 2011 too old to make use of , given the rapid rise of mobile phones and it would be interesting to make use of newer data, when available and the correlation between the digital economy and areas with high rates of internet access. Another census will be performed in 2021.

Lastly, this study also made use of secondary documentary analysis and I consider the various layers of national, provincial and municipal policies governing spatial planning in Johannesburg. This shows the deep structural spatial inequalities in Johannesburg and the plans of the three spheres of government, national, provincial and municipal to change this and give people greater access to economic opportunities.

Airbnb is a relatively new phenomenon and has only been the subject of nascent study internationally and has not been researched in South Africa. This made finding other studies on Airbnb's impact in developing countries impossible and I had to use a mixed methods approach by trial and error to understand whether Airbnb's rise in Johannesburg has impacted the housing market. The mixed methods approach which combines qualitative interviews and the analysis of data for descriptive purposes can assist with developing insights into phenomena that cannot be fully studied, using only one method, according to Venkatesh, Brown & Bola (2013).

Ethical Considerations

There were no ethical issues that arose in this research. I provided information sheets and consent forms to everyone interviewed. All interviewees signed consent forms before the interview. Consent was agreed upon in emailed surveys and verbal consent was granted during telephonic interviews. While all participants agreed to have their names published in the report, I have chosen not to use names and have labelled them by their professional description instead.

Conclusion

In this report, I aim to show that although the digital revolution and peer-to-peer economy have been hailed as a great equaliser by some authors in the literature, a considered approach is required when looking at the impact on certain sectors such as housing or labour rights. In this study, I consider Johannesburg, city that is already divided along historic racial and income lines. The spatial patterns and access to economic opportunities do not allow many in the lower income areas to access Airbnb as an additional revenue stream and the travel application remains largely popular within the well- off areas that have access to infrastructure and economic opportunities. The exception to this is areas which are newly gentrifying and have received an economic boost from private developers such as Maboneng in Jeppestown on the east of the CBD and Marshalltown on the southern edge of the CBD which is close to the banks and mining companies' headquarters.

CHAPTER TWO

LITERATURE REVIEW

Introduction

In this chapter, I discuss existing literature pertaining to the debates around the digital economy, which includes Airbnb, Uber and other technological platforms. The scholarship grapples with the question whether the rise of the digital economy allows for greater opportunities and lowers barrier to access or whether it leads to the informalisation of labour and accrues the largest benefits for those who already have access to resources.

This chapter furthermore consider five international studies on the impact of Airbnb. One examines the impact of Airbnb on the rise in rental prices in popular tourism hotspot, Barcelona in Spain. Another examines the effect of Airbnb on resident in neighbourhoods in Barcelona with a high number of Airbnb listings. Two other studies link Airbnb rentals to an increase in housing prices in cities in USA and in New York City in particular. One study conducted in Texas in the USA found that an increase in Airbnb listings led to a decline in hotel prices. This chapter also considers efforts by countries in the developed world to regulate Airbnb and their concerns around its impact on the local property market. It is important to note that the scholarship and arguments relating to the digital economy are still relatively nascent as countries and studies begin to grapple with an understanding of digital technologies and their effects.

This chapter also considers the impact of tourism in South Africa and Johannesburg in particular. I examine the rising importance of this sector in the country's economy as it shifts from mining and manufacturing to dependence on the services sector. The impact of tourism is important when studying Airbnb as the short-term rental accommodation application is primarily used by travellers, both for business and pleasure.

Digital economy dilemma

The digital economy is referred to by various terms such as peer-to-peer or shared economy and there is much scholarship and debate on which term accurately portrays this relatively new phenomenon. This will be explored further in this section. The debate around the various terms to describe the digital economy can also be viewed through the lens of the arguments whether the digital economy can uplift society or damage development. While the benefits and negative effects of the digital economy are explored further in this chapter, much of the scholarship agrees (Kenney & Zysma, 2016) that many of these platforms disrupt the existing organisation of economic activity by changing entry barriers and redefining value and labour.

The positive aspects of the digital economy are highlighted by Zervas, Georgios & Prosperio (2017). They argue that peer-to-peer platforms, which can also be referred to as the sharing economy, enable people to collaboratively make use of underutilised inventory such as their homes on Airbnb or cars, driving for Uber and accrue fees. They posit that that these innovations have lowered the barriers of entry for providers while keeping transaction costs low for consumers. There is also flexibility for providers as they can remove their names or listings from the technologies at any time. Schor & Fitzmaurice (2017) also argue that the digital platform reduces transaction costs and creates a level of trust with users relying on ratings to mitigate the risk of using the services, usually provided by strangers. It can also lead to economic efficiencies, in the case where the goods are not being fully utilized, such as an empty room in a house, listed on Airbnb (Barron, Kung & Prosperio, 2017).

There are, however, concerns about labelling the digital economy a form of sharing. Lee (2015) writes that this form of economic transaction is being used by technological giants such as Uber and Airbnb to tap into an earlier sentiment of people opposed to large corporations such a hippies and activists living in communes. However the digital economy is "more about self-realisation through cooperation than it is about redistribution or mobilisation," (Lee, 2015, p.2). Platforms such as Airbnb and Uber generate profits for the companies while there are other forms of peer produced products which are not for profit and are free, such as open source software and crowd sourced knowledge such as Wikipedia, which can be referred to as truly part of the sharing economy, according to Schor & Fitzmaurice (2017).

Another term for the digital economy is collaborative consumption which emphasises the commercial nature of the transactions and involve 'coordinating the acquisition and distribution of a resource for the fee or other compensation' (Belk, 2014b, p. 1597). Belk (2014) is further scathing of the digital economy and advances that it is a form of 'pseudo-sharing'. He argues that it is fact a business relationship hiding behind communal sharing and the conflation of the two produces distortions and delusions (Belk, 2014). This has the effect according to Belk (2014) of creating a façade of a "feel good" form of sharing, while obscuring the profit motive within the companies themselves who are often large multi-nationals and individuals who accrue profit from their involvement in the transactions. This study considers Airbnb referred to as part of the sharing economy while generating billions of rands in profits for the company itself and providing a revenue stream for hosts with properties to list. There are further concerns about the unequal shared nature of the sharing economy and this will be discussed further in the literature and the study in Chapter Four on the nature and location of Airbnb listings in Johannesburg.

The profit motive within digital platforms such as Uber and Airbnb, Schor & Fitzmaurice (2017) argue, makes it incorrect to refer to them as part of the sharing economy as people are not sharing without accruing gains. These are transaction between individuals for profit, such as a driver and a rider using Uber and a host and a guest on Airbnb. A percentage of this fee also goes to the digital platform provider. An advantage of the digital economy, Schor & Fitzmaurice (2017) note is that the platforms reduce transaction costs and creates a level of trust with users relying on ratings to mitigate the risk of using the services usually provided by strangers. They however note that while some digital platforms earn money for providers and offer cheaper rates for consumers, their focus is on their own profit margins and managing other costs cheaply, such as labour, rather than the warm or feel-good concepts of community and sharing.

Arthurs (2018) notes that the digital economy does have some benefits, otherwise it would be eradicated by market forces. He writes that the winners are mostly the founders of the new technologies as well as consumers who have goods and services at lower costs and with greater convenience. However Arthurs (2018) argues that digital economy users are not as well protected by regulations as they are with traditional businesses and they could be exposed to health hazards and anti-social hosts, in the case of Airbnb. Workers are another of the categories, according to Arthurs (2018) which have been identified as the losers in the digital economic environment with greater consumer choice and lower costs, creating more precarious working conditions. There is also concern by Arthurs (2018) that the digital economy could undermine public policy and eradicate competition by undercutting traditional industries, in order to achieve a monopoly over certain sectors. The digital economy is also seen as a threat to governments' traditional revenue models where they rely on taxes to levied at the source. The altered nature of the digital economy, spanning multi-national corporations requires a shift in operations by revenue agencies. The European Union has been clear about the need to implement a digital tax and is considering different models to levy revenue on digital giants who operate cross border, without having an actual physical presence in the country or a permanent establishment as it is known in revenue terms (Reuters, 2018). The digital economy has thus raised difficult legal questions for governments because the services provided do not fall neatly into categories, according to Katz (2015) and these business models have caused confusion for traditional insurance, tax and employment policies.

As developed countries begin to study the impact of the digital economy, there is concern that the effects, according to Seg'u (2018) are understudied in developing countries. These nations are typified by inequality and weak regulatory systems (Acquier et al., 2016; Mair and Reischauer, 2016; Martin, 2016). Of significance, Dreyer, Ludeke-Freund, Hamann & Faccer (2017) argue, is that state capacity in developing countries is often limited and cannot be relied upon to protect economically vulnerable groups of people from the new business models that the digital economy creates.

South Africa is an example where authorities are trying to put measures in place to regulate Uber after a series of deadly attacks between traditional taxi drivers and drivers associated with the e-hailing application (Businesstech, 2018). The legislation is not yet in place and its impact has thus not yet been assessed. Chapter Five will consider the response of authorities in Johannesburg to Airbnb and shows they are yet to consider this a concern to the housing market. Cape Town has begun to implement regulations for short-term rental accommodations (Nkanjeni, 2017) and this will also be considered further in Chapter Five. There are already concerns in South Africa by the traditional hotel industry who have called for tighter regulations (Njobeni, 2017) highlighting the apprehension by the traditional hospitality industry over the disruption the shoter-term rental accommodation application poses to established businesses.

The debates around the digital economy are relatively nascent but some of their theoretical underpinnings are rooted in historic changes in production patterns. Kenney & Zysma (2016) posit that it has hallmarks of the putting-out economy, which was a value chain prior to the introduction of factories in the 1760's. Businesses then, would send materials to people's homes to create clothes, firearms and shoes and generate value, according to Kenney & Zysma (2016). Some aspects of the digital economy, such as ride-hailing application Uber maintain control over compensation, as did the putting out economy. This would indicate that the digital economy in some forms is similar to a pre-industrial phase where people were able to accrue income, while being part of an economic value chain, from their homes. This raises questions about sites of accumulation and income as production and value chains evolve towards the Fourth Industrial Revolution.[5] A home, until recently has been an appreciating asset and a car, a depreciating asset. The digital economy offers users an opportunity to accumulate income from their home or car, at their own time and format preference. In the case of Airbnb, hosts decide on the price to charge guests. However, the changing ways of using both appreciating and depreciating assets as well as procuring goods and services using the digital economy have also raised concerns about the informalisation of labour and the possibility of creating greater inequalities, which will be discussed further in this chapter.

The scholarship further highlights one of the varying effecting of digital technologies between developing and developed countries. In a study undertaken by Dreyer et al. (2017), Uber drivers interviewed in South Africa used the e-hailing application as their primary form of employment, whereas in the US, most Uber driver provide the service as a second or third income stream. This points to the high levels of unemployment in South Africa, of 27.7 percent in the third quarter of 2018 (Statistics South Africa, 2018), while the jobless rate in the US was at 3.9 percent in August 2018, according to the US Bureau of Labour Statistics. Despite the low official unemployment rate, it is important to note the high cost of living and precarious nature of work in the US means that some people find it necessary to supplement their income with other jobs and the digital economy provides the flexibility to do this. This study is but one example of the different impacts that digital technologies have on different countries, each typified by their own economic structure and labour markets.

[5] The First Industrial Revolution used water and steam power to mechanise production. The Second made use of electric power to allow for mass production. The Third Industrial Revolution used electronics and information technology to allow for the automation of manufacturing. . The Fourth Industrial Revolution continues from the Third with technology advancing at a far greater pace, such as robotics and artificial intelligence (World Economic Forum, 2017).

It is therefore clear that while the digital economy has provided some benefits for consumers and a flexible labour market, there are also broader concerns about informalisation of labour and the impact on tax revenues and traditional modes of production. This study considers the effects of the still nascent but growing Airbnb market in Johannesburg and shows that the people who largely benefit from the option of an additional revenue stream, using their properties are those in areas already close to economic opportunities, infrastructure and in areas with high living standards. The full impact of the digital economy is understudied in developing nations despite concerns of the impact on countries that do not have strong regulatory frameworks. This study considers the lack of response by the City of Johannesburg to Airbnb's growth and shows that officials have no plans in the immediate future to undertake an investigation into its impact. The concerns around Airbnb effect on the local housing market and the traditional hotel industry have been studied internationally and will be discussed in the next section.

Airbnb: The International Case

The major studies on Airbnb's impact have been undertaken in developed countries and are reflected in this chapter. As Airbnb is primarily urban based, residents of cities around the world, largely in the developed world are both in favour and against Airbnb's model. Those in favour support being able to generate extra revenue from their homes on the short-term accommodation application. Others are opposed to Airbnb arguing that it leads to an increase housing prices and other costs in areas which attract high number of tourists. according to Sheppard and Udell (2018).

> Airbnb forces neighbourhoods and cities to bear the costs of its business model. Residents must adapt to a tighter housing market. Increased tourist traffic alters neighbourhood character while introducing new safety risks. Cities lose out on revenue that could have been invested in improving the basic quality of life for its residents. Jobs are lost and wages are lowered in the hospitality industry (Samaan 2015, p. 2).

It is important to differentiate between hotels and other forms of traditional short term accommodation objections to Airbnb. These views by the traditional hotel industry are often premised on the fact that the short-term accommodation application is unregulated and is therefore able to undercut the traditional market, which is subjected to taxes and safety regulations. Those who argue in favour of Airbnb advance the positive economic aspects, including new income streams for residents and boosting tourism within non-traditional markets according to Kaplan & Nadar (2015).

Seg'u (2018), studied the impact of short-term rent platforms on rental prices in Barcelona in Spain and argued that the extent of the impact on a city's housing market, depends on the density of the Airbnb listings and their profitability. She concluded that the Airbnb market had increased housing prices in certain areas in Barcelona.

> Profitability of the short-term rentals is also a key factor that determines the proliferation of this type of market. In 2015, the average long term rental price in Barcelona was €28 per night or €856 a month while the average Airbnb price (short term rental) was €71 per night. Hence, an owner had to rent their unit 11.5 days a months in average (138 days a year) in order to earn the same than with a long term rental. According to Coles et al. (2017), this same figure for the city of New York is 18 days per month (215 in a year). The fact that Airbnb was quite profitable in Barcelona may be one of the reasons behind the high density of listings, (Seg'u, 2018, p. 12)

Further concerns about Airbnb's impact on Barcelona's residents were investigated in a study by Sans & Quaglieri (2016) who found that the neighbourhoods with the highest number of Airbnb listings were also losing the largest number of local residents. Sans & Quaglieri (2016) argue that local residents were being forced out by the higher cost of living in the city where landlords could receive higher rental incomes from short-term accommodation guests than long-term local residents and state that their study proves Airbnb's promise to "revitalise neighbourhoods" is false.

Barron et al. (2017) considered the impact of Airbnb on rental and housing prices for all cities in the USA. They used Google trends of the search of 'Airbnb' as an instrument to identify the causal effect. They made provisions for variations at a geographic level using a measure of 'touristness' across space. Their study revealed that a 10 percent increase in Airbnb listings in cities in the USA, increased rental prices by 0.38 percent.

A study on the impact of Airbnb on housing prices in New York City in the USA, by Sheppard & Udell (2018) shows that properties that are listed on Airbnb, experienced an increase in prices of 31 percent. Examining the reasons for possible house price increases, as the number of Airbnb listings grow, Sheppard and Udell (2018) posit that property developers or buyers can purchase homes or unit for speculative purposes of generating rental income in the future, thus driving up prices. Investors could also buy homes, not for their own use and they could remain with a property for longer due to potential short-term rental income by Airbnb. These considerations would effectively drive up demand for housing and therefore increase property prices. Furthermore, the Airbnb units could increase the local tourist population and generate greater tourism revenues, which is usually viewed as positive, however this according to Sheppard and Udell (2018) could have the effect of driving up demand for goods and services and increased prices for residents.

The concerns about the impact of Airbnb in New York City were considered in a study by the Attorney General's Office in 2014. Schneiderman (2014) wrote that 72 percent of Airbnb listings violated property use and safety laws and were therefore illegal and over 4 600 units were booked for more than three months of the year which led to questions related to the impact that Airbnb has on the supply of housing stock and affordability. Henwood (2015) maintains however that the impact is hard-to-measure however as property prices are not dependent on a single factor. Further, there is no single factor in a city that can represent an increase in demand, for housing according to Sheppard and Udell (2018). This will be shown in Chapter Five in this study on Airbnb in Johannesburg where a number of factors influenced the local housing market in recent years, such as weak economic growth in the country.

In a study conducted on Airbnb's impact on the traditional hotel industry, in Texas USA, Zervas et al. (2016), showed that a 10 percent increase in the number of listings available on Airbnb was associated with a 0.34 percent decrease in monthly hotel revenues using data from before and after Airbnb entered the city. This was measured against a baseline of changes in hotel room revenue in other cities with no Airbnb presence over the same period of time. The study also found that independent hotels , on the lower-end who do not cater to business travellers are more affected by Airbnb.

Zervas et al. (2016) maintain that their study is among the first to provide empirical evidence that the digital economy is significantly reshaping consumption patterns and is not necessarily generating new economic activity. They applied Say's Law which refers to generating demand that did not previously exist through the provision of new goods and services. They conclude that Airbnb lowers travel costs and increases tourism spend and economic gains for cities. Zervas et al. (2016) howver caution that these benefits should be measured against other costs such as rising housing prices and the reshaping of neighbourhoods.

The studies above, all having been undertaken in developed countries and show that Airbnb has impacted on housing prices, rental costs residents in neighbourhoods and the traditional hotel industry. These concerns are expressed by residents in cities with a high number of Airbnb listings and government authorities who in the case of Barcelona and New York have stepped in to regulate the short term accommodation application The regulatory environment for Airbnb internationally will be explored further in the next chapter. In this report howver, I show that there are other factors impacting housing prices in developing countries such as South Africa, which has in recent years experienced weak economic growth and changes in the property market cannot be directly linked to the popularity of the short-term accommodation application.

Airbnb's Regulatory Environment

The regulatory environment for Airbnb is complex and authorities are grappling with the definition and scope of the digital economy as well as the various arguments for and against regulations. It is important to consider the international regulatory environment as these could be possible policy decisions that authorities in Johannesburg or South Africa could contemplate if they found that Airbnb is impacting housing prices and rental stock. The reason for the complexity of regulating the digital economy accordingng to Stemler (2017) is that is does not fall easily into existing legal categories. Miller (2014) argues further that companies operating in the digital economic environment believe themselves primarily to be in the realm of the internet and regulated by internet law. However Miller (2014) posits that many of the services the digital companies offer, such as shoter-term rental accommodation in the case of Airbnb or taxi services by Uber exist in the realm of physical services, and are provided in the offline world. Authorities are also concerned about balancing the need to encourage innovation and whether the rules for the digital economy should be similar to existing commercial enterprises

(Ranchordas 2015). Furthermore, the digital economy is continually evolving, making it difficult for regulator to keep up (Ranchordas, 2015)

Regulating the digital economy is especially challenging in developing countries as Einav, Levin, Popov & Sundaresan (2014) write that local business are often subjected to licencing and regulatory standards while international companies such as Airbnb and Uber who have large budgets for legal and tax experts are able to evade the regulations. Some of the arguments in favour of regulating Airbnb view the market mechanism as a failure and the need to protect the housing market while others see regulations as reducing competition by favouring traditional businesses. Einav et al. (2015) highlight the importance of cities undertaking empirical research to create a firm foundation for policies and legislation for the digital economy while innovation and changes in this sphere are continuous. Sandarajan (2014) noted that many arguments in favour and against the digital economy have thus far been ideological and are not based on empirical evidence.

Several cities in developed nations have begun studying the impact of Airbnb on the local housing market and effects on housing prices and long-term rental accommodation stock. Some of the cities, mostly in developed countries have imposed varying regulations on Airbnb to try limit what is believed to be its negative impact. San Francisco in the USA, Berlin in Germany, Barcelona in Spain, Paris in France, and Vancouver in Canada all require operating permits for hosts to make use of the short-term accommodation application. Vancouver has also restricted Airbnb activity to owner-occupied apartments. Other cities have sought to cap the number of days allowed for short-term rental accommodation per annum. Paris in France allows short term rentals for a maximum of 120 days, Amsterdam in the Netherlands allows 60 days, London permits 90 days and New York restricts short term rentals to 30 days in a row. These regulations have been difficult to enforce, according to Seg'u (2018) and this reveals that attempts to understand and legislate around the digital economy remain nascent and require further study.

Tourism hotspot Barcelona has used legal action and in 2017, administered a fine of €600 000 to the California headquartered Airbnb. The city claimed the company violated local regulations by continuing to advertise unlicensed listings on its website (Burgen, 2017). At the same time, a special protocol has been developed by Barcelona in order to identify illegal tourist apartments and file the information to tax authorities, writes Seg'u (2018). The Spanish city has also doubled its team of inspectors from 20 to 40 and they use technology to identify whether properties are licenced for short-term rentals. They do this by cross-referencing the listings on Airbnb with city data. Owners who are found to be in breach of the licencing requirements can face a fine of up to €60 000 (Burgen, 2017).

Airbnb is yet to pay the fine to Barcelona (Poole, 2018) and denies wrongdoing. The company claims it works closely with all city authorities around the world and adheres to local regulations. The company further argued that the majority of their listings internationally are homeowners or renters, trying to use their properties as a source of extra income and to make ends meet (Burgen, 2017).

It is a contentious issue whether Airbnb allows people to use their homes as a form of revenue or if it creates a model for investors with a large number of properties to bypass revenue and regulations associated with the traditional hospitality industry. This issue was examined by a report to the Attorney General in New York City and Governor Andrew Cuomo in October 2016 signed into law a bill providing for a range of fines to be imposed on those who advertise entire apartments or dwellings for time periods of less than 30 days. The issue of the impact on housing prices was presented as a central argument for passage of the law, as noted by Brustein & Berthelsen (2016). Liz Krueger, the state senator who sponsored the bill, said in a statement that this was a victory for residents over a multi-national corporation. She had argued that Airbnb had contributed to the city's affordable housing crisis. Brustein & Berthelsen (2016) report that Airbnb responded by accusing New York City of bending to the interests of the traditional hotel industry and had ignored the wishes of residents who wish to generate extra income from renting out their properties on Airbnb.

Developing countries present a different picture to Barcelona and New York City, where the effects of Airbnb are yet to be studied.. In South Africa, the traditional hotel industry wants government to act. The Tourism Business Council of South Africa (TBCSA) has called for policy makers to regulate Airbnb, arguing that it should operate within a regulatory framework (Njobeni, 2018). The Federated Hospitality Association of South Africa (FEDHASA) also wants rules for Airbnb as it believes the company has an unfair advantage by not having to adhere to licencing rules.

South Africa already has precedent for beginning the legislative process when the effects of the digital economy become clear. Amidst a number of violent attacks on Uber and Taxify drivers by the metered taxi industry (Phakathi, 2018), government moved to amend the National Land Transport Act (NLTA), which for the first time makes provision for ride hailing as a mode of transport. It requires vehicles and drivers on ride hailing applications to be licenced, in the same way as metered taxis and will address complaints by the metre taxi industry that the ride hailing industry is not compliant with regulations. It was passed by the National Assembly in 2017 and is making its way through the National Council of Provinces (NCOP) processes, after which, it will require the signature of the president before becoming law (Phakathi, 2018)

However, despite calls from the traditional hotel industry, consideration of regulations at a national level for Airbnb are yet to take place in South Africa. Cape Town addresses the popularity of the Airbnb platform through City's Municipal Planning By-law[6] which states that any owner wishing to do short-term holiday letting from a flat or a block of flats – irrespective of the platform (an electronic platform such as Airbnb or otherwise) facilitating such letting – must ensure that this is compliant with Body Corporate rules and ensure that the property is appropriately zoned, and must apply to the City's Development Management Department for approval (Nkanjeni, 2017). It however has not yet been measured whether this regulation his has been effective. No by-laws relating to short-term rental accommodation exist in Johannesburg, according to city authorities and this will be considered further in this study.

While Cape Town has started to regulate Airbnb, the city has not yet studied its impact on the housing market. Authorities in Johannesburg and Cape Town have welcomed Airbnb into their cities. A Memorandum of Understanding has been signed between Cape Town and Airbnb to promote the city further on the application (Nkanjeni, 2017). Johannesburg Executive Mayor Herman Mashaba, in 2017 held a joint event with Airbnb where he said that Airbnb is an initiative to be embraced as it will promote tourism and economic development (Dlwati 2017).

The literature on the regulatory environment for Airbnb shows that there is precedent to impose restrictions on the short-term accommodation application internationally, where authorities believe it has negative impacts on the housing market or residents of local neighbourhoods. However this should be based on empirical research which has not yet been undertaken in Johannesburg or Cape Town. Chapter Five considers whether Airbnb has impacted

[6] A regulation made by a local authority (City of Cape Town, n.d)

Johannesburg's housing market and reveals that the housing market in recent years has been affected by other factors such as weak economic growth and not the rise of Airbnb. The next section will consider the growth of the tourism sector in Johannesburg and its importance in the economy. This is an important consideration when examining future Airbnb trends and whether the short-term accommodation application is likely to increase in popularity.

Tourism: A New Arena for Growth

When considering Airbnb in Johannesburg, it is also important to look at tourism trends in South Africa and Johannesburg as the application is designed for short-term accommodation and most of the users or guests are travellers for either business or pleasure. Tourism is playing an increasingly important role in the South African economy. According to the Tourism Satellite Account for South Africa (Statistics South Africa, 2018), the tourism sector created 31 752 net new jobs in 2017. A longer-term analysis of labour statistics shows that the tourism sector is playing a larger role in job creation than other major industries, such as mining and manufacturing. Between 2014 and 2017, tourism created just over 64 000 net new jobs, outperforming larger industries such as transport and communication, mining, utilities (electricity, gas and water) and manufacturing, (Statistics South Africa, 2018). The finance and other business services industry was the largest contributor to job creation overall, increasing employment by about 407 000 jobs between 2014 to 2017.

Statistics South Africa (2018) data shows tourism contributed 2.9 percent to South Africa's gross domestic Product (GDP) in 2016. Statisticians used a variety of methods to arrive at this figure as tourism related activities occur across multiple industries such as food and beverage, travel and hospitality. Tourism is not listed as a distinct industry in the Standard Industrial Classification (SIC) system. The contribution by tourism to GDP is estimated to be far higher in a report by the World Travel and Tourism Council (WTTC). This found the total contribution of travel and tourism to South Africa's GDP was R402bn in 2016 (9.3 percent of GDP) and is expected to grow by 2.5 percent to R412.2 billion (9.4 percent of GDP) in 2017 (WTCC, 2018). Despite the difficulties in providing an exact figure for the contribution that tourism makes to economic performance, it is clear the tourism industry is important to South Africa for employment and economic output.

The rise in tourism and financial services jobs indicate the increasing importance of the tertiary or services sector over the primary (agriculture and mining) and secondary (manufacturing and construction) sectors in South Africa broadly and in Johannesburg specifically. This will be considered in greater detail in Chapter Three. Tourism is of particular importance to Johannesburg which is Africa's most visited city by international guests, surpassing Cape Town, according the Mastercard Global Destination Cities Index (Mastercard, 2018).

According to the Mastercard (2018) survey, Johannesburg in 2017 received 4.05 million international overnight visitors, Marrakech in Morocco is the second most popular African destination, welcoming 3.93 million visitors . Polokwane, in Limpopo was third and received 1.88 million and Cape Town came in fourth with had 1.73 million international guests. Cape Town has close to four times the number of Airbnb listings as Johannesburg. According to AirDNA (2018), Johannesburg had 5 271 listings while Cape Town had 20 305 listings. This indicates that visitors to Johannesburg used other forms of accommodation. The popularity of Johannesburg amongst international guests shows the potential for Airbnb to grow in the city. Johannesburg also recorded the highest international overnight visitor expenditure among African cities. The majority of these visitors were from neighbouring countries and not overseas and it would seem from the data available that the main reason for these arrivals in Johannesburg, a city littered with malls, is shopping. Mozambique was the number one country that sent visitors to Johannesburg, accounting for 809 000 visitors or 20 percent of the total, followed by Lesotho (12.4 percent), Zimbabwe (12 percent), Botswana (6.7 percent) and Swaziland (6.1 percent). On average, international visitors stayed 10.9 nights and spent US$48 (R660.48) per day in Johannesburg, with shopping accounting for more than 50 percent of their total spend.

In tourism literature, Johannesburg is labelled a "non-traditional" tourism destination, and according to Rogerson & Kaplan, (2005) attracts travellers for various reasons. Leisure travellers, who originate either domestically or from Sub-Saharan Africa make their way to the city's many malls and casinos, located in the city's middle to upper class suburbs of Rosebank, Sandton and Fourways. Another major reason for tourist arrivals in Johannesburg is business related activities, as the city is the finance capital of Africa and houses many corporate headquarters and the majority of business tourism activity is concentrated around Sandton and Rosebank (Greenberg & Rogerson, 2015). The importance of Rosebank and Sandton to tourism in Johannesburg is demonstrated by Rogerson & Rogerson (2016) who found that over half of total tourism spend in Johannesburg is concentrated in only two regions of the city; Region E (Sandton) and Region B (Rosebank and Randburg). The inner city of Johannesburg, unlike many central business districts globally is only third in terms of tourism spend. The authors further write that the two areas which are least important in terms of tourism spend are lower income areas further from economic networks and amenities, Region D (Soweto) and Region G (the south, which includes Orange Farm).

Authorities have stressed the importance of tourism as a contributor to the economy of South Africa. President Cyril Ramaphosa used his maiden State of the Nation Address in February 2018 to highlight the tourism sector's economic importance and potential, stating that the country could double the 700 0000 people currently employed in the sector and it has shown superior performance to other sectors of the economy (Brophy, 2018). Johannesburg Executive Mayor Herman Mashaba welcomed the city being declared the most visited destination in Africa by Mastercard in 2018 (Mastercard, 2018). Local and national authorities are clearly keen to grow the sector and recognise its economic benefits. There is however some scholarship cautioning about the effect of tourism in developing countries such as the sustainability of resource supply, global economic instability, political instability and changing demographics, according to Telfer & Sharpley (2015).

Tourism in the last 60 years has evolved into a powerful socio-economic force, as more people have the ability, means and freedom to travel (Larsen, Urry & Axhausen, 2007). According to the World Travel and Tourism Council, tourism is the world's fifth largest industry in terms of direct GDP after financial services, mining, communication services and education. Reid (2003 however suggests that tourism is highly susceptible to external forces and events, such as political instability, natural disasters or disease outbreaks, which makes it a risky sector for developing countries to be dependent on for economic growth. Telfer & Sharpley (2015) warn that developing countries may find tourism only benefits the local elite or multinational corporations and welcoming travellers could cause economic, social and environmental strains.

On the positive side, Brown (1998) states that tourism can sometimes be the only realistic path for developing countries to improve economically and can assist with a contribution to balance of payments (Mihalič, 2016). Developing countries in particular are affected by low foreign currency reserves as they usually import a large amount of manufactured products while exporting raw commodities. Tourism is also a labour intensive industry and a source of both direct and indirect employment (Farver 1984; Cukier and Wall 1994).

This section has considered tourism trends in South Africa and the importance of the industry to the country and Johannesburg. Airbnb as it gains in popularity is an important aspect of the tourism sector in the country. The literature outlines some of the concerns and benefits tourism holds for developing countries. These apprehensions, similar to Airbnb or the broader digital technology have been understudied in developing countries and could impact on the socio-economic environment.

Conclusion

The existing literature in this report reveals the nascent debates on the effects of the digital economy such as Airbnb which has yet to be studied in developing countries like South Africa. There are both benefits and negative effects from the digital economy and further empirical study is required by policy makers and legislators to understand its impact.. Airbnb has been regulated in several cities in the developed world due to concerns about the travel application's impact on the housing market and residents. It has not yet been studied fully whether these laws have had any impact and these policies should not be adopted without question by developing countries. Creating a possible regulatory environment for Airbnb should only be undertaken by developing countries after greater research is undertaken to understand whether the local housing market has been impacted. This will be explored further in Chapter Five of this report. The literature further highlights the importance of tourism as an economic sector in South Africa broadly and in Johannesburg . While local and national authorities have welcomed tourism and promised to grow the industry further, more research could be undertaken as to the possible negative effects of over-reliance on this sector as an economic contributor.

CHAPTER THREE

JOHANNESBURG: A CITY IN TRANSISTION

Introduction

Johannesburg formed as a mining town in 1886 and is viewed a dynamic, global and cosmopolitan city by the Spatial Development Framework (SDF) 2040 (CoJ, 2016). This chapter considers the history of Johannesburg's rise in importance globally, the impact of the segregation and apartheid eras on spatial planning and the city's transition from economic reliance on mining to manufacturing to the services sector. Furthermore, this chapter reviews several of the national, provincial and municipal documents that are pertinent to Johannesburg's planning and development for the next twenty or so years.

Johannesburg: from Gold to Banks

The discovery of gold on the Witwatersrand in the 1886 changed the country's and city's fortunes and as Freund (2010), writes the Minerals Revolution dominated the South African economy. Houghton (1960), saw the Mineral Revolution as being the first stage in Rostow's theory of Modernisation and the manufacturing or secondary sector as leading off the gold mining or primary sector. He believed manufacturing would be the next boom, however he opined that the mining industry would remain a catalyst for growth, indefinitely, which was proven incorrect.

Nattrass (1990), said that even if the country were to experience a manufacturing or industrialisation boom, this would not be able to fully absorb the population in terms of employment due to its low skills base and the small domestic market, in part due to the artificially low wages which were paid to the African majority. Legassick (1974), showed that the gold mining industry was entirely reliant on cheap labour, and showed the linkage between manufacturing which he wrote had a diverse base but added that industrialists relied on re-investment from the mining industry. The discussion around cheap labour will be important in the later section about housing and spatial patterns in Johannesburg.

South African capitalist history of massive profits began slipping in the 1970s when the gold standard was dropped internationally and the price of oil rose becoming an increasingly valuable commodity.

South Africa’s importance as a gold producer was also tarnished by increased resistance to apartheid and the spotlight of the world on the country, following the 1976 Soweto Uprising. This event saw scores of schoolchildren killed, injured and arrested for taking part in protests Afrikaans being the medium of instruction in schools. The resistance to apartheid spreads across the country and international concerns about the crackdown by the apartheid government grew (Nieftagodien, 2012.

The importance of mining to the South African economy is explored in some of the scholarship around the Minerals and Energy Complex (MEC). Fine (2018) shows that due to mining, South Africa was heavily dependent on electricity and that the MEC left the economy with some strengths in terms of infrastructure in the primary and secondary sectors. However, the MEC failed to integrate into other sectors of the economy. The prominence of Eskom and its importance in the economy and creating skilled jobs for white people was also essential to the MEC (Fine, 2018) and the power utility became one of the world largest publicly owned electricity companies in the world.

Towards the end of apartheid, in the 1980s and 1990s, the government continued to focus on the MEC according to Jones & Muller, (1992), which saw the manufacturing industry weaken, leaving the ANC to inherit an economy with myriad structural problems according to Gelb (1990). The influence of the MEC remains in modern day South Africa, according to Padayachee & Hart (2013), despite a decline in mining production since the 1980s. Mining finance houses have been spun off and companies have moved their headquarters overseas, contributing to capital flight, according to Freund (2010) who concludes that the MEC remains the basis for both private and public sector policy under the democratic government.

Johannesburg, according to the SDF 2040 (CoJ, 2016) has undergone a slew of changes in its relativity short history. The city transformed from a mining town heavily reliant on the primary sector (extraction of raw materials, such as agriculture and mining) to an industrial city making up the secondary sector (manufacturing and output of finished goods) to the centre of the tertiary sector (providing services) and is an important regional and global gateway (CoJ, 2016). Johannesburg’s economy is currently dominated by the services sector with Trade, Transport, Finance and Community services making up 76 percent of the city’s economic output. Mining production has declined nationally and especially in Johannesburg which went from being at the centre of the gold rush in 1886. In recent times the mining sector contributed nine percent to economic output in South Africa and manufacturing has also decreased in importance from 20 percent in 1996 to 16 percent in 2018, according to Statistics SA (2017)

Financial Services dominate Johannesburg's economy. The sector contributed 32 percent of economic output in Johannesburg while Community, Social and Personal Services contribute 20 percent while Wholesale and Retail Trade, Catering and Accommodation (16 percent), Manufacturing (16 percent), followed at some distance by Transport Storage and Communication (eight percent), Construction Contractors (four percent), Electricity, Gas and Water (two percent), Mining and Quarrying (one percent) and Agriculture less than 1 percent (CoJ, 2016).

Johannesburg 's economy has transformed in the last one hundred and thirty years or so from its inception as a mining town, to a strong manufacturing base to dependence on the services sector and in particular, the financial services sector. This has implications for jobs as the tertiary sector usually requires more skilled personnel than the primary and secondary sectors The changing nature of the economy in the country's economic hub has also affected the spatial patterns in Johannesburg, having shifted away from the Johannesburg CBD to the prosperous Northern Suburbs. The changes have impacted access to economic opportunities and infrastructure and this will be explored further in the next section.

Johannesburg: A Divided City Still

Since gold was discovered on the Witwatersrand in 1886, then there has been varying forms of racial segregation. Black miners working in gold mines were housed in compounds while white workers were not controlled in this manner. More formalised patterns of segregation began in the 1920s and 1930s where Maylam (1995) wrote about the "Sanitation Syndrome" and black people, forced by cheap labour and lack of housing to live in desperate conditions in slum yards and were seen as unhygienic and undesirable for urban spaces.

These efforts however were largely unsuccessful as the various spheres of the government were unwilling to provide alternative housing. The grassroots urban movements began in the 1940s and as Bonner & Nieftagodien (2012) describe, shack settlements demanded urban space and land from the government. One of the most famous of these was the shack settlement movement led by James Sofasonke Mpanza (SA History Online, 2016). Mpanza is sometimes referred to as the 'Father of Soweto' for forcing the government to provide permanent housing to the back population and his actions were seen as a victory when authorities agreed to house the black population in permanent urban settlements and townships being built on the peripheries of cities (Bonner & Nieftagodien, 2012).

Bonner & Nieftagodien (2012) details the National Party's electoral success in 1948, on the back of promises to improve enforcement of racial segregation by erecting industrial buffer zones between white and black areas. The townships clustered around the country and Johannesburg were uniform in nature, with a single road leading in and out that could easily be closed by authorities should the situation warrant it and were distant from economic activity and educational opportunities. In this way, the apartheid government was able to ensure that the CBD and surrounding white suburbs were the preserve of whites and the townships were viewed as dormitory towns (Bonner &Nieftagodien).

Towards the collapse of apartheid in the 1990s, influx controls were reduced and the pressure on the homeland's areas increased due to drought conditions and the difficult financial situation the apartheid government found itself in with international sanctions. Hundreds of thousands of people flocked to the cities, in search of jobs. It was currently according to Bremner (2010) that there was capital flight from the CBD toward the Northern Suburbs, including the very symbol of capital, the Johannesburg Stock Exchange (JSE) moving to Sandton. Nieftagodien (2018) explains that banks redlined or refused to finance buildings in Hillbrow in the 1990's, thus sealing its fate to becoming overcrowded and dilapidated.

Bremner (2010) explains that some corporates remained in the CBD and were praised for being patriotic. However, they created islands of their own security and services such as coffee shops and hairdressers, while the streets of the CBD were dirty, unsafe and not maintained well by the City of Johannesburg. It was mostly black professionals with small businesses who snapped up the available office space in the CBD. Mbeme and Nutall (2008) decry the move away from the CBD to the north as they believe this part of the city, central to public transport could have been an equaliser and instead, the areas with the highest levels of economic activity have been moved even further away from the already distant townships. There has since then been even greater expansion of and investment in Sandton and Rosebank, as Chapter Five will reveal.

Furthermore, the spatial patterns which existed under apartheid, with black people living far from the urban centers largely remains in place today. Harber (2014) writes how the democratic government's Reconstruction and Development Programme (RDP) purchased land, usually far from cities as it was cheaper. The state built single story units very similar to the apartheid government (often using the same engineers) which resulted in urban sprawl, making it difficult to provide public transport due to low volumes of passengers. Harber (2014) also decries the lack of the use of town planners or architects to fashion the new urban settlements with access to recreational and economic facilities, instead the engineers worked to create the housing along existing service lines which reproduced the dormitory areas of the apartheid era.

Despite the capital flight in the early 1990s, the CBD is still economically crucial to Johannesburg (CoJ, 2016) and still serves as a connection between two dominant development corridors in Gauteng. The east-west corridor encompassing important rail, road and industrial areas and the former mining belt and residential areas, south of the east-west corridor which have formed a buffer zone between the northern and southern parts of the city. The south-west of the city has low to medium density human settlements, with relatively low levels of economic activity and there is a lack of infrastructure connecting these areas to the economically strong north and eastern quadrants. The northern corridor of Johannesburg is considered economically strong with superior road infrastructure and a rapid rail system in the form of the Gautrain. The areas south of the CBD are dominated by low income residential settlements, separated by the mining and industrial belt. To the west of the CBD is an area of mainly residential sprawling developments, predominantly medium to upper income, structured around the N1 (or the ring road). There are still pockets of under-utilised land, close to the north-eastern quadrants of the city in Modderfonein and Frankenwald areas (CoJ, 2016).

The history of segregation and apartheid spatial patterns as well as the changing nature of the economy have left a city structure that displays an inverted polycentric structure, unique to Johannesburg (CoJ, 2016). This is characterised by residential areas on the periphery which disconnected from the CBD. It also displays uneven population density (CoJ, 2016) with core economic areas surrounded by low to medium density areas while higher density areas, such as Soweto, Diepsloot and Orange Farm are on the outskirts of the city and far from economic and educational opportunities.

The apartheid's government policy was to build black housing settlements on the periphery of the city with industrial areas acting as buffer zones between white and black areas (Nieftagodien, 2007). This policy, according to the SDF 2040 has largely continued under the democratic dispensation since 1994 as large provision of housing has been done on cheap and available land on the edge of the city. The City of Johannesburg acknowledges that continuing to build human settlements on the edges of city will continue to enforce spatial and income inequality in an already divided city (CoJ, 2016)

Building human settlements in Johannesburg post-apartheid has been riddled with challenges. The democratic authorities have faced massive urbanisation due to the demand for urban settlement being supressed- albeit unsuccessfully- by the pass system and legislation such as the Group Areas Act of 1950. The end of apartheid in 1990 saw the number of people moving to cities soar and much of the demand for urban settlement took place in large metropolitan municipalities such as Johannesburg which represent economic and educational opportunities.

Johannesburg: A City of Plans

Johannesburg's importance in the province, country, region and continent is continually emphasised in the SDF 2040, with Johannesburg contributing 17 percent of South Africa's GDP. The city is important commercially and internationally, hosting two thirds of all South African corporate headquarters (United Nations, 2011) . There are thus a number plans which outline a vision for the next twenty or so years, for the city by national, provincial and local spheres of government.

The National Development Plan (NDP) adopted by Parliament in 2012 lays out a grand vision for the country to 2030. It expressed concern about urban sprawl and stated that to prevent further development of housing in areas on the edges of cities, increased densification which will support public transport is required. (National Planning Commission, 2012). The NDP advocated for the state to incentivise economic activity in and around townships and involve the private sector to provide low income and gap housing[7].

[7] Gap housing refers to the shortfall in the market between homes supplied by the state through the Reconstruction and Development Programme (RDP) and houses financed by the private sector. This segment typically refers to people who earn between R3 500 and R15 000 per month, which is too high to be entitled to a state funded hoe and too low to qualify for a bank bonded home (Gov.za, n.d.)

On a provincial level, the Gauteng Transformation, Modernisation, Reindustrialisation (TMR) roadmap was tabled in 2014. It identified apartheid spatial patterns as a key structural challenge in the province (Gauteng province, 2015). The TMR policy document cites ten pillars in order to create integrated and socially cohesive development: radical economic transformation, decisive spatial transformation, accelerating social transformation, transformation of the state and governance, modernisation of the economy, modernisation of the public service and the state, modernisation of human settlements and urban development, modernisation of public transport and other infrastructure, reindustrialising The TMR demarcates five development corridors with Johannesburg designated as the central corridor and the hub of financial services, information and communication technologies (ICT) as well as pharmaceutical industries.

At a municipal level, the SDF 2040 exists as blueprint for Johannesburg. The mandatory planning document maps the future of development for Johannesburg until 2040 and is reviewed every five years. The document envisions a compact polycentric' model as a form of spatial justice and promotes the vision of a densified city with easy access to economic opportunities and amenities. The plan commits to creating metropolitan cores in Johannesburg by 2030 which each have access to transit infrastructure. This will require a focus on the CBD as the metropolitan core of Johannesburg by increasing housing, economic activities and diversifying the usage of land. The City of Johannesburg foresees the creation of local economic activity in relatively higher density areas such as townships. The SDF states that public investment should be focused in areas where the potential for developing and sustaining mixed use urban usage is great and the CBD, Soweto and central public transport corridors are deemed as areas that are best suited for this (CoJ, 2016).

The SDF 2040 states that the move to a polycentric city model will require the upgrading of infrastructure such as water, electrification and sewerage in certain areas which the SDF commits to doing in order to attract private sector investment. The SDF 2040 maintains that this will be more cost effective in the longer term than continually expanding infrastructure outwards in the ever growing urban sprawl. The polycentric development strategy in the SDF 2040 foresees the majority of development being directed towards Transformation Zones which will create a more compact urban dynamic and support economic growth (CoJ, 2016).

There are parts of the city, labelled as Deprivation Areas, such as informal settlements and low income formal areas which require infrastructure in order for them to access urban services.

The SDF (2040) states that these areas should fall under Consolidation Zones and foresees that infrastructure should improve their connectivity to economically active nodes. The City of Johannesburg warns against developing ad-hoc housing , which has been done in the past as this can add to increased marginalisation and urban sprawl. To this end the City of Johannesburg will only approve bulk infrastructure upgrades within the Consolidation Zone if it supports the compact city principles (CoJ, 2016)

The Transformation Zones are where the city intends to focus much of its public investment as well as attract private sector investment until 2040. The Transformation Zones will promote densification and the diversification of spatial usage, through incentives to the private sector. The areas outside the Urban Development Boundary are seen as priority areas by the SDF 2040 for ecological protection, food production, low intensity social services and leisure and tourism. Development and infrastructure investment will be limited in these areas (CoJ, 2016).

The massive build programmes in Rosebank and Sandton are taking place within the Transformation Zone and these areas are top priority for the city of Johannesburg to install bulk infrastructure and attract private investors and development, according to City of Johannesburg Officials 1 and 2 (personal interviews, September 12, 2018). These are also areas which have some of the highest number of Airbnb listings due to the proximity to the Gautrain and other leisure and business activities. The location of Airbnb listings largely in economically strong areas in Johannesburg, will be explored further in Chapter Four.

Conclusion

The effects of Johannesburg's segregation and apartheid eras linger on, as characterised by deep divisions in the city's spatial patterns nearly 25 years after democracy. The city has undergone many transitions in its economic nature but still remains fundamentally exclusionary as the rise of the services sector requires more skilled workers than the primary and secondary sectors. Johannesburg tries to market itself as a world class city and appeal to international corporations as well as tourists by promoting Sandton as the centre of Johannesburg, instead of the CBD (City of Johannesburg, n.d.). This has had a profound impact on further excluding areas on the periphery who find it difficult to access Sandton due to lack of public transport. The patterns of Airbnb listings, as discussed in Chapter Four also reveal that travellers are most attracted to areas where middle and upper income people reside, with the exception of small pockets of gentrified areas in the CBD. Ambitious plans have been drawn up by several spheres of government to change the spatial patterns but there is yet to be much impact from them. The last 25 years served to largely entrench spatial patterns in Johannesburg amidst changes to its economy (Harber,2014) and it is unclear how the next 20 years will change this, while the focus remains on areas such as Sandton and Rosebank and the services sector dominating the city's economy.

CHAPTER FOUR

AIRBNB: A JOHANNESBURG STORY

Introduction

Johannesburg has been described as a vastly unequal city, still battling to shrug off the legacies of apartheid spatial planning and housing policies post-democracy (Nieftagodien, 2007). Some of the scholarship cited in Chapter Two considered whether the digital economy lowers barriers to entry and creates convenience while others in the literature argue that is reinforces inequality and allows people who have resources to accrue further, thus increasing inequality. In this chapter I explore whether Airbnb in Johannesburg allows residents to equally access the opportunity to generate extra revenue from their homes or whether Airbnb listings largely follow historic spatial patterns.

The chapter maps where the majority of the 5 271 Airbnb listings across the city's 56 wards are located and then considers the data for several wards within these areas to highlight trends around income levels, home ownership and employment. The chapter then looks at how income, ownership, and employment patterns correlate with Airbnb's popularity and the number of listings. This chapter shows that Airbnb listings are largely clustered in Johannesburg's prosperous Northern Suburbs with small pockets in the CBD in areas undergoing gentrification. These findings were expected as Airbnb internationally is more popular in areas that are close to infrastructure and attractions as can be seen in the study of Barcelona discussed in Chapter Two. However Johannesburg's unique spatial patterns and the ongoing legacy of apartheid, considered in Chapter Two further makes it clear where the patterns of accumulation lie and the access to economic opportunity from the relatively new digital economy.

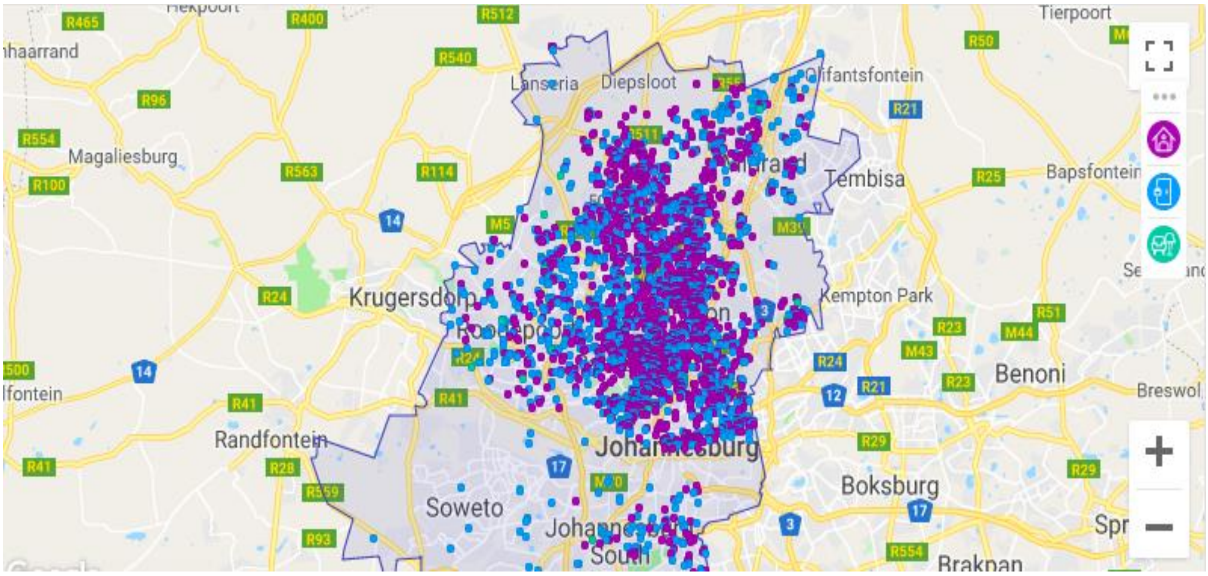
A 'ward' refers to the division of a city or town, especially an electoral district for administrative and representative purposes at local government level (CoJ, n.d). The level of focus on wards is due to areas being grouped together, according to the City of Johannesburg's definition of regions, such as Sandton and Alexandra which have vastly different average household incomes and infrastructure and therefore require greater granular breakdown due to the disparities between them. These discrepancies can be seen in the average annual household income in Sandton in Census 2011, which was R461 000, compared to Alexandra's R29 400 (Statistics South Africa, 2012).

Unequal sharing in Johannesburg

The City of Johannesburg divides the city into six regions for planning purposes (CoJ, 2016) and the Airbnb listings in Johannesburg will be noted broadly according to the regions. It is important to note here that the AirDNA tool only maps areas which have over 10 Airbnb listings. For a variety of socio-economic reasons, areas such as Hillbrow, Berea, Alexandra are all high-density areas but do not register on the website as rentals in these areas work through different relational networks. A search on Airbnb in September 2018 revealed just a couple accommodation listings in Soweto but invited users to pay for experiences such as dinner in a Soweto home, a guided tour by individuals or by small companies, a walk through the township and the historic Vilakazi Street, the address for Nobel prize winners, the late President Nelson Mandela and Archbishop Desmond Tutu. This suggests that Soweto residents are making use of Airbnb for purposes other than accommodation. The traditional accommodation industry is also relatively small in Soweto suggesting travellers prefer an experience in the world-famous township but choose accommodation elsewhere.

The 5 271 Airbnb listings are a tiny percentage of the 775 918 residential properties on the deed registry in Johannesburg (Centre for Affordable Housing Finance in Africa, 2017). However as shown in Chapter One, the number of Airbnb listings in the city have risen in the last eight years by 90%. The figure below provides a picture of where the majority of Airbnb listings lie, heavily concentrated in the prosperous Northern Suburbs as well as a relatively high number of listings on the edges of the CBD, in areas which have recently gentrified such as Marshalltown and Maboneng, according to data from AirDNA (2018).

Figure 1: The Location of Airbnb listings in Johannesburg



Source: AirDNA (2018)

Some areas which could be attractive for Airbnb users such as the high density and central neighbourhoods of Hillbrow, Berea and a central township like Alexandra have no listings on Airbnb. One reason that these areas are not listed on Airbnb could be the perception of high crime rates and the lack of leisure and business activities within these areas. The next section will detail the lower income and employment levels of these areas. Residents however in these central areas are using other methods to their Northern Suburbs counterparts to generate income and divide costs. The Census 2011 (Statistics South Africa, 2012) found that the number of people living in informal settlements had declined while the number of people living in backyard dwellings in townships had risen. Rental arrangements in these areas, whether they are long or short-term are not being done using Airbnb which requires access to the internet, a verification process, and credit or debit card. The more traditional way of rentals was through connection between tenant and landlord by word of mouth, poster boards (Hillbrow) or other forms of digital media such as text messenger service WhatsApp.

The table below divides Johannesburg into six regions and the number of Airbnb listings in each one. This will demonstrate that the regions with higher economic output and access to infrastructure and economic opportunities have a greater number of Airbnb listings as travellers usually want access to transport infrastructure such as the Gautrain, shopping and leisure activities as well as proximity to business centres, for business travellers.

Figure 2: The six regions of Johannesburg

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Source: City of Johannesburg (2013)

Table 2: The location of Airbnb listings in Johannesburg's six regions

Area	Region	Number of Airbnb listings
Diepsloot/Midrand	A	1 105
Northcliff/Midrand	B	1 612
Roodepoort	C	560
Greater Soweto	D	27
Sandton/Alexandra	E	1 228
Inner City	F	735
Ennerdale/Orange Farm	G	4
Total		**5 271**

Sources: City of Johannesburg (2013) & AirDNA (2018)

The divisions of the regions and the number of Airbnb listings are used to illustrate the most populous areas for Airbnb and are not an exact reflection. This is due to regions being grouped according to suburbs while the data on Airbnb listings is divided according to municipal wards which sometimes separate suburbs. The table above illustrates the highest number of Airbnb listings are in Regions B and E, encompassing Rosebank and Parktown, Sandton and Bryanston. Region A also contains a relatively high number of listings, with Midrand and Fourways failing in this region. Region F with Maboneng, Marshalltown and Mulbarton in the south of Johannesburg has the fourth highest number of listings. Maboneng, located in Jeppestown on the east of the Johannesburg CBD is seen an arty and trendy area and has recently undergone an economic revival. Marshalltown, on the southern edge of the CBD is near banks and mining companies. The area has also undergone a rejuvenation in recent times with Main Street lined with cafes and restaurants. These outlets mainly service the professionals working in the corporate offices in the area. The west of Johannesburg in Region C sees the number of Airbnb listings drop while there are very few units on offer in Soweto (Region D) and south of Johannesburg (Eldorado Park, Orange Farm and Lenasia). The most popular areas for Airbnb listings are thus clustered around Rosebank and Sandton, in the Northern Suburbs and in gentrified areas such as Maboneng, close to the CBD.

Table 3: Economic output of Johannesburg regions

Area	**Region**	**Economic output share**
Diepsloot/Midrand	A	12%
Northcliff/Midrand	B	13%
Roodepoort	C	12%
Greater Soweto	D	8%
Sandton/Alexandra	E	27%
Inner City	F	23%
Ennerdale/Orange Farm	G	4%

Source: City of Johannesburg (2013)

The City of Johannesburg (2013) breaks down economic output per region and these figures show most of the economic output comes from Region E, Sandton and Alexandra, followed by Region F, which encompasses the CBD. Region B which contains Rosebank accounts for the third highest economic output, albeit dropping sharply with Soweto and areas south of Johannesburg such as Orange Farm trailing far behind. The latest data on economic output from the different Johannesburg regions is from 2013 and further research could be undertaken to examine the effects of new developments in Rosebank and Sandton and how these have altered the economic output. It must also be noted that Airbnb only started to become popular in Johannesburg in 2013 (having been established in San Francisco, USA in 2008). Nevertheless, it is possible to see a broad trend that regions in Johannesburg with higher economic output have a larger number of Airbnb listings. However, the decline of the CBD as an attraction for visitors can be seen when examining the area's economic output which is close to Sandton but has under half of the number of Airbnb listings.

Divided standards of living

This study further considered Airbnb listings within 20 wards in Johannesburg as regions encompass different socio-economic areas such as Sandton and Alexandra and closer examination is required. The table below considered ten data points related to each of the wards. These are: active rentals, whether the listing is an entire house, the number of hosts in the ward, the daily rate for the short-term accommodation, the grade awarded by Airdna, the demand for the listings and whether guests are domestic or international travellers.

Table 4: The nature and location of Airbnb listings in Johannesburg

Ward/area	**Active rentals**	**Entire homes**	**Active hosts**	**Multi-listing**	**Averag daily ra**	**Occupanc rate**	**Marke grade**	**Rental demand**	**Internation guests**
Johannesburg	5271	51%	3442	47%	R694	50%	A	56	44%
Ward Rosebank, Parktown No	329	69%	233	45%	R727	64%	A	69	46%
Ward 90- Du Hyde Park	232	50%	161	46%	R750	49%	B+	50	41%
Ward Sandton Morningside	466	71%	320	44%	R1 001	56%	A	60	45%
Ward Bryanston, Fourways	299	59%	190	50%	R839	46%	A	56	29%
Ward Braamfontei Newtown	43	69%	41	9%	R778	32%	B-	29	52%
Ward Maboneng, Troyeville	100	89%	76	34%	R450	51%	A-	54	70%
Ward Maboneng, Park	51	92%	40	27%	R490	46%	A	51	73%
Ward Marshalltow JHB CBD	78	56%	62	33%	R820	43%	B+	54	72%
Ward 125- N	27	22%	20	44%	R789	14%	C	N/A	0%
Ward Ormonde, Winchester H	29	20%	25	24%	R843	17%	C	N/A	38%

Ward 100- C City	13	7%	11	23%	R412	100%	N/A	N/A	0%
Ward 64-Be	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ward 63- Hi	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ward 40- Or	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ward Meadowland	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ward Alexandra	NA	NA	NA	NA	NA	N/A	NA	NA	NA
Ward 22- Pi Soweto	9	22%	6	56%	R2 552	6%	N/A	3	0%
Ward 39- Or Soweto	8	12%	5	63%	N/A	N/A	N/A	N/A	0%
Ward Klipspruit, S	9	11%	4	67%	N/A	N/A	N/A	N/A	0%
Ward 18- Elc Park	4	0%	2	75%	N/A	N/A	N/A	N/A	0%

Source: AirDNA (2018)

Table Four shows that Ward 106, encompassing the Sandton CBD, Morningside, and Ward 117 containing Rosebank and Parktown North have the highest number of Airbnb listings with 795 listings. The majority of Airbnb's 5 271 listings are located within two areas which City of Johannesburg Official 1 (personal interview, September 12) said the city regarded as "priority areas" within the for infrastructure investment and planning. Both Rosebank and Sandton have a higher percentage of entire homes listed on Airbnb, than the average for Johannesburg which is 51 percent. The other areas where a high number of entire homes are being listed on Airbnb are Ward 61 and Ward 123 which contain the Maboneng development. This is high as 92 percent however the number of multi-listings hosts in these areas are lower than Sandton and Rosebank, showing there are fewer people listing Airbnb properties as a business in Maboneng, than in Sandton and Rosebank, which are established areas. The majority of Airbnb listings in the Johannesburg CBD (Ward 124) fall within Marshalltown on the southern edge of the city centre and 56 percent of the Airbnb listings there are entire homes, just above the city average and a similar percentage there are multi-listing hosts to neighbouring Maboneng. The percentage of entire homes listed on Airbnb fall as the areas move away from the city centre and Rosebank and Sandton. However, there are only very few listings in areas such as Cosmo City and Soweto and it is therefore difficult to draw conclusions on the data available.

The average daily rate for Airbnb listings is highest in an area which is a surprise given the spatial inequalities discussed in the literature and policy documents above. Pimville Soweto which has nine active rentals, the majority of which are operated by professional guesthouses and has an average daily rate of R2 552. These guesthouses are not operated by traditional Airbnb hosts, using their homes or a spare room to make an alternative source of income and instead offer a professional service. The upmarket Sandton is second in terms of costliest average daily rate at R1001 while Bryanston and Fourways (R839) and, Dunkeld (R750) Rosebank (R727) are all above the Johannesburg average of R694 per night. Maboneng prices (the two wards charge an average daily rate of R490 and R450 respectively), fall below the Johannesburg average, once again indicating that the area is not as popular for Airbnb travelers as more established areas such as Sandton and Rosebank. These areas also have a high number of hotels and are near the Gautrain, leisure and business activities and can therefore charge higher prices. The Johannesburg CBD surpasses Maboneng in terms of average daily rate of R820 and as most of the listings are in Marshalltown, close to the mining companies and banks, this could be due to business travelers, instead of leisure tourists. However further study on the nature of Airbnb users in Johannesburg would be required to draw conclusions.

The occupancy rate of Airbnb listings is critical for landlords as the higher rate of short-term rentals is only more attractive than long-term rentals if there is a high occupancy rate, according to Real Estate Agent 1 (personal interview, September 6, 2018). Johannesburg's occupancy rate stands at 50 percent while Rosebank and the Sandton CBD enjoy higher occupancy rates than the city average. Braamfontein and the city center's occupancy rate are below the Johannesburg average.

Areas included on AirDNA are awarded gradings by the website which are intended to measure their attractiveness to potential investors. It measures the rental demand, revenue growth and seasonality of Airbnb listings in an area. The scores are calculated against The Top 2000 global Airbnb markets. Rental demand shows the relative demand in this market by using a combination of annual occupancy and listing growth rates. A high score shows a high travel demand. Revenue growth is calculated by looking at the change in year-on-year revenue per annum for properties that received bookings in both time periods. A high score signals increasing revenue per property (AirDNA, n.d) Seasonality reveals how much the travel demand differs between peak season and low season. A high score signals low seasonality.

This study considers the nature of the Airbnb travelers. According to the data on Airbnb, less than half of all users are international guests, a trend broadly observed in Sandton and Rosebank. The number of international guests falls sharply in Bryanston and Fourways to 29 percent while the figures increases steeply in the areas around the inner city. Soweto and Cosmo City do not receive any international users on Airbnb. This suggests that international travelers are drawn to areas such as Maboneng and Marshalltown, which are close to the CBD and form part of the isolated pockets of gentrification and economic revitalisation, discussed in the literature, while a high number of domestic travelers make use of the short-term accommodation around Rosebank and Sandton. It is of further interest to note that the best performing month for Airbnb in Johannesburg is December. This is calculated according to rates and occupancy levels. The high occupancy rate in December suggest that despite Johannesburg being seen as a business destination, there is still leisure tourism interest in the city in December, while the city traditionally empties out as people head to the coast or other areas around the country.

The discrepancies between the areas further from the Northern Suburbs and the CBD can already be seen clearly in terms of their attractiveness on Airbnb. This study further considered the 20 areas according to four measurements in the 2011 Census. As explained data from Statistics South Africa Census 2011 was used, as the Community Survey 2016 did not go down to ward level. The next census will be conducted in 2021. To allow for the lapse of time since the Census, the metric of people's access to the internet was not used, despite this being a study of an aspect of the digital economy. According to the 2018 Global Digital report by We Are Social and Hootsuite, South Africa added two million internet users growing to 30.81 million with an internet penetration of 54 percent. The census 2011 found that 35.3 percent of households have access to the internet and due to the seeming increase in the last eight years, this metric was deemed unreliable. Instead this study used indicators such as a home being owned or paid off, the average annual household income, employment and education levels as these trends have not increased or decreased as rapidly as internet penetration. Wards 22 and 25 in Soweto and Ward 18 in Eldorado Park were changed during a municipal demarcation process and no data was available for them in Census 2011.

Airbnb's success in Johannesburg has largely been in the Northern Suburbs with isolated pockets in gentrifying areas such as Braamfontein and Maboneng while access to amenities such as the Gautrain and the corporates in downtown Johannesburg also see the number of listings rise. The success of 9 guesthouse listings in Soweto indicate there is limited supply of traditional upmarket short-term accommodation. This can be seen against Airbnb's assertion (Airbnb, 2018) that home sharing in South Africa is helping people to create economic opportunities in their homes and communities. Airbnb listings in Johannesburg favour those living in certain areas, close to amenities and public transport while the legacy of the city shows that poor and majority black people live further from the city centre and Northern Suburb hubs, thus displacing them from traditional opportunities in employment and education as well as accessing the benefits of the digital platform economy. The previous chapter outlined how most of the investment in Johannesburg is geared already towards the Northern Suburbs and the various plans the three strata of government have designed to change the face of the continent's economic hub.

Table Five below will consider four measures of standards of living in Johannesburg broadly and wards which contain Airbnb listings and others which do not have data of Airbnb listings. The areas with the highest concentration Airbnb listings in Johannesburg, Sandton and Rosebank have a high number of homes owned or being paid off. The low levels of ownership in Braamfontein and Maboneng should be viewed with the gentrification efforts in recent years, The Maboneng precinct only began to develop in 2008. Property trends in these wards in Census 2021 will reveal greater insight as to the role of development on home ownership. Home ownership is also relatively low in the Johannesburg CBD, Berea and Hillbrow, all densely populated areas. Home ownership in Soweto and Alexandra rises. These areas are densely populated however largely by houses and backyard dwellings and not apartments, unlike the CBD, Hillbrow and Berea.

Table 5: Divided standards of living in Johannesburg

Ward/ area	**Home owned/being paid off**	**Average annual household income**	**Employment**	**Matric or higher**
Johannesburg	37.3%	R29 400	52.6%	52.8%

Ward 117- Rosebank, Parktown North	51.0%	R230 700	79.4%	77.1%
Ward 90- Dunkeld, Hyde Park	47.9%	R230 700	79.2%	74.5%
Ward 103- Sandton CBD, Morningside	46.6%	R461 000	74.3%	78.1%
Ward 106- Bryanston, Fourways	55.8%	R461 000	80.0%	79.1%
Ward 60- Braamfontein, Newtown	1.6%	R57 300	49.3%	53.3%
Ward 61- Maboneng, Troyeville	4.8%	R14 600	51.5%	47.6%
Ward 123- Maboneng, Ellis Park	2.6%	R29 400	56.1%	50.1%
Ward 124- Marshalltown, JHB CBD	13.1%	R57 300	60.8%	53.8%
Ward 125- Nasrec	65.3%	R230 700	48.7%	55.7%
Ward 54- Ormonde, Winchester Hills	64.6%	R230 700	68.4%	76.0%
Ward 100- Cosmo City	37.6%	R57 300	60.2%	53.9%
Ward 64-Berea	7.0%	R29 400	59.0%	56.5%
Ward 63- Hillbrow	3.1%	R57 300	60.3%	53.5%
Ward 40- Orlando	36.5%	R14 600	37.7%	45.5%
Ward 41- Meadowlands East	46.7%	R29 400	38.2%	46.5%
Ward 108- Alexandra	47.7%	R29 400	50.2%	42.4%
Ward 22- Pimville Soweto	N/A	N/A	N/A	N/A
Ward 39- Orlando, Soweto	34.7%	R29 400	39.8%	47.1%
Ward 25- Klipspruit, Soweto	N/A	N/A	N/A	N/A
Ward 18- Eldorado Park	N/A	N/A	N/A	N/A

Sources: Census 2011 (Statistics South Africa, 2012) & Wazimap (n.d.)

The average annual income is measured as median by Census 2011 and should be viewed with caution, howver as an indicator of broad trends, areas with high Airbnb listings also have a high average household income, far surpassing the Johannesburg median of R29 400.
Once again, the wards which contain Maboneng appear to be the exception. These contain the poorer areas of Troyeville and Jeppestown while also housing the isolated pockets of gentrification. Lower income areas such as Orlando and Alexandra have either very few Airbnb listings or none. Areas south of the city centre Ormonde and Nasrec score relatively high on this metric however, they have low levels of Airbnb listings, indicating the attractiveness of the Northern Suburbs for travellers. Employment levels are also highest in the Northern Suburbs, areas which have the highest number of Airbnb listings and education levels of matric and or higher are also the highest in the Northern Suburbs.

The two areas which have the highest number of Airbnb listings, Rosebank and Sandton are also viewed as priority areas or Transformation Zones by the SDF. Under the SDF 2040, there are six broad zones: CBD, Metropolitan Core; Principle Metropolitan Sub-Centres, General Urban Zone, Local Economic Development; Suburban Zone, Peri-urban Zone and Outside the Urban Development Boundary. Both Sandton and Rosebank have been categorised as Principle Metropolitan Sub-Centres with investment in infrastructure a priority for city officials and agencies, according to City of Johannesburg Official 1 (personal interview, September 12, 2018) who said they are pushing for very high densities and mainly mixed used development, admitting “basically anything goes” in their bid to attract development. The SDF 2040 acknowledges multiple and competing needs for infrastructure in a city the size of Johannesburg which is experiencing rapid urbanisation. According to City of Johannesburg Official 2 (personal interview, September 12, 2018) “priority areas have a better chance of receiving funding” as they are associated with development intensity. The inner city is also a priority area for City of Johannesburg Official 1 (personal interview, September 12, 2018) who acknowledged that government will have to create development there as the private sector is more interested in investing Sandton and Rosebank. Plans for the City of Johannesburg were discussed in greater detail in Chapter Three.

Conclusion

This chapter describes that Airbnb listings in Johannesburg are more popular in areas with economic indicators as well as business and leisure amenities. These neighbourhoods largely correlate with the areas with the highest average incomes and lowest unemployment rates in the city. The exception to this is areas such as Marshalltown and Jeppestown in and close to the CBD which are isolated pockets of gentrification and economic revitalisation. This chapter shows that Airbnb does offer an opportunity to city residents to generate extra income but the location of the property in relation to economic opportunities and infrastructure is important in attracting travellers. This however does not mean that residents in areas central to economically active areas do not use their homes to generate rental income. However, they are not making use of Airbnb and are advertising spare rooms or entire homes using other methods. This chapter highlights the access to economic opportunities afforded by Airbnb, an aspect of the digital economy, remain largely along the divisions imposed on the city by segregation and apartheid spatial planning. The next chapter will consider whether Airbnb listings in Johannesburg have affected housing prices and rental stock as studies in the developed world have shown.

CHAPTER FIVE

AIRBNB: HOUSING PRICES AND RENTAL STOCK

Introduction

There have been several international studies that have shown the contribution of Airbnb to an increase in housing and rental prices. In response, authorities in several cities have instituted regulations to try contain the impact to the housing market and residents by the short-term accommodation application. This chapter considers the data available in Johannesburg and whether Airbnb has affected housing prices and the availability of long-term rental stock. This chapter further highlights the economic conditions in recent years in South Africa and the impact on the housing market.

Airbnb: The Johannesburg Effect

Airbnb has only been active in Johannesburg since 2010 and it is still difficult to assess its impact on the property market. Nevertheless, it is possible to make some preliminary assessments of its impact according to property specialists and city planners. Property economists state that there are not enough listings in the country generally and in Johannesburg specifically to conclude that Airbnb has impacted on housing prices, rental prices or the availability of rental stock. Property Economist 1 (personal interview, November 15, 2018) noted that the "percentage of total stock in the country must be minimal". Property Economist 2 (personal interview, November 16, 2018) agreed that there are not enough listings in either Johannesburg or Cape Town to determine whether Airbnb has impacted housing prices. "There are only so many people who visit a city, if Airbnb numbers are so high that they affected house prices, it would have to be a huge number", said Property Economist 1 (personal interview, November 15, 2018). Property economists also cited the weak economic growth environment which has led to lower house and rental prices. Property economists ruled out the casual link between high property prices and Airbnb in Cape Town as noted in media reports. Property Economist 2 (personal interview, November 16, 2018) said "prices are tumbling on the Atlantic Seaboard in Cape Town". Property Economist 1 (personal interview, November 15, 2018) said of the housing market in Cape Town that it is "a cyclical phenomenon" and the trend of the middle class increasingly unable to afford centrally located property in Cape Town is not unique to the city. He added “all successful cities have a serious problem that the middle income [earners] can’t afford to buy close to the centre, worldwide”.

Estate agents from the rental side and property purchase side in leading national property companies said they had seen no impact on either rental prices or housing prices from Airbnb in areas with high number of listings such as Sandton CBD, Bryanston and Fourways, Dunkeld and Rosebank. Estate Agent 1 (personal interview, September 6, 2018) operating in the Sandton CBD on the rental side said in 2013 and 2014 when Airbnb first became popular, some clients preferred to rent out their homes or apartments on the short-term accommodation application but due to the seasonality of travellers and being unable to keep the accommodation fully booked throughout the year they returned to long-term tenants. Other rental agents answered that their businesses were not affected by Airbnb despite the relatively high number of listings in the area. On the purchase side, Estate Agent 1 (personal interview, September 6, 2018) said in Dunkeld, which is considered a high income area, people were resorting to renting out one room in their house to assist with their mortgage and other household costs. All the estate agents pointed to weak economic growth as the reason for weak demand and lower price housing sales as well as rental fees. This will be examined in greater detail below.

Ward councilors in areas with a high Airbnb presence such as Rosebank, Sandton CBD and Bryanston and Fourways had no idea of the impact of Airbnb in their areas and whether high number of travelers were disruptive to the neighbourhoods as they had not received complaints from residents. There however have been complaints of high number of Airbnb listings in by residents in cities such as Barcelona in Spain and New York City in the USA, as discussed in Chapter Two. Property development companies involved in building residential accommodation in the fast burgeoning Sandton and Rosebank CBDs said they had not received any queries from future residents or investors about the possibility of using the units in the high density buildings for Airbnb. Developer 1 (personal interview, September 20, 2018) and Developer 2 (personal interview, September 21, 2018) further said they had not considered Airbnb as a possibility for usage of the units when they began the development of the buildings.

Property economists further said it would be difficult to assess the impact of Airbnb on housing and rental prices due to the difficult economic environment. It is important to consider South Africa’s economic growth and property market as these criteria are crucial when considering whether a variable such as Airbnb listings have an impact on property prices and rental stockThe housing market is directly correlated with the economic growth performance of a country. Property Economist 1 (personal interview, November 15, 2018) said “housing prices worldwide growth increase by the growth in the economy”. The National Development Plan (National Planning Commission, 2012) laid out an ambitious vision of reaching 6.5 percent unemployment by 2030, if consistent annual growth rates of 5 percent or 6 percent are achieved. South Africa saw an average GDP growth rate of 1.5 percent between 2012 and 2017, according to Statistics South Africa (2018). The economy grew by 0.8 percent in 2018 (Statistics South Africa, 2019) while unemployment hovered around 27 percent for much of 2018 (Statistics South Africa, 2018)

Two scorecards by major banks which provide home loans indicate the depressed conditions in the property market. A report by Absa Bank (2018) on the Homeowner Sentiment Index (HSI) was marginally lower at 72 percent in the third quarter of 2018 compared with 73 percent in the second quarter. The HSI measures sentiments of South African consumers with regard to various aspects of the residential property market and determines consumer sentiment regarding buying, selling, investing in, renting of and renovating property, as well as property market conditions in general. The HIS sub-indices were all lower nationally in the third quarter compared with the first and second quarters, “indicating that consumers remained well aware of market conditions and influencing factors, which made them more wary of engaging in property-related transactions up to the third quarter of the year,” (Absa Bank, 2018, para. 2).

Absa further stated that several economic and consumer-related factors impacted property market sentiment and there is the prospect of continued subdued property market conditions in 2019. These are expected to reflect in property buying patterns, property price growth and the demand for and growth in mortgage finance.

The FNB House Price Index is similarly gloomy (FNB, 2018). It continues to maintain levels around low single digit growth territory not too far from 4 percent year-on-year. “The low single-digit growth in nominal terms continues to translate into a year-on-year price decline in “real” terms, when adjusting for CPI (Consumer Price Index) inflation,” (FNB, 2018, p.5). Price growth was 4.7 percent in 2018, according to Statistics South Africa (2018). The FNB

House Price Index found that the cumulative real decline in housing prices in South Africa since the peak of that pre-2008 boom period, reached in August 2007, has been -20.8 percent.

> FNB's values continue to point to housing demand weakening, and with it the demand supply balance as reflected in a declining FNB Valuers' Market Strength Index (explanatory notes at the end of the report). This appears to explain the ongoing house price decline in real terms (FNB, 2018, p. 6).

Rental prices have also decreased during the slowdown in South Africa's economic growth levels and according to data from rental income website PayProp, incomes grew faster in 2018 than rental price growth which was 3.7 percent. Despite massive office and residential building in Sandton and Rosebank as referred to in Chapter Three, Gauteng saw a downward trend in price growth of rental incomes in the third quarter of 2018. The only province which saw an increase was Mpumalanga. PayProp pointed to the rise in inflation keeping consumers under pressure. Inflation is predicted to rise to 5.2 percent in 2019 (South African Reserve Bank, 2018).

There is at present no data on rental income related to specific areas within Gauteng or Johannesburg. Rental incomes and rental growth in Gauteng highlighting the province's economic strength and average rent has consistently been above the national average and has also been growing faster than the average. Average rent in the province in the fourth quarter of 2017 was R7692 and grew by R5.8 percent year-on-year compared to the national average of R7 308 and national rental growth rate of 5.4 percent, (PayProp, 2018).

South Africa's economic growth rates have been below its emerging market peers and the sub-Saharan African average (World Bank, 2018) which according to property economists, together with weak consumer confidence and rising inflation have seen below inflation increases in both property price and rental income growth. It is therefore difficult to determine the cause behind property prices changes due to the subdued economic environment.

Conclusion

Johannesburg, as detailed in Chapter Three has been a city in flux since gold was discovered in 1886. It is ever expanding, redefining its borders and reinventing areas such as Maboneng and Marshalltown which had previously been abandoned by capital. There has also been massive public and private infrastructure changes to Rosebank and Sandton, such as the Gautrain, new office and residential developments. It is therefore difficult to measure housing prices being impacted in this fluid environment by Airbnb, while studies undertaken in the developed world such as the US or Spain have had data points which are fixed and measurable.

CHAPTER SIX

CONCLUSION

The digital economy is often spoken about as an exciting phenomenon with the ability to profoundly change societies, modes of production and labour. There are arguments both in favour and against aspects of the rapidly evolving technology. The positive aspects which are brought to the fore include lowering barriers to access, convenience and reduced costs. The negative effects associated with the digital economy are highlighted in the literature of this study, such as the informalisation of labour, creating precarity amongst those with lower skills levels and the production of higher inequality due to people with resources having greater access to technology.

Airbnb, a short-term rental accommodation application forms part of the digital economy and has been subjected to several studies in developed countries which show links to higher property and rental prices. Several cities in the developed world such as Barcelona and New York have implemented strict policies on short-term rental accommodation to try limit the negative effects on the local population and the housing market.

This study showed that the nascent debates in the developed world around Airbnb, are yet to be fully considered in the developing world. The number of Airbnb listings are growing in both Johannesburg and Cape Town and the positioning of the tourism sector as an economic priority suggest the figures could rise further. Cape Town has implemented a by-law to try ensure the short-term accommodation application is regulated. However, the City of Cape Town has not undertaken an empirical study on the effects of Airbnb on the housing market and resident and this should be done before policies are implemented.

The City of Johannesburg's authorities are also yet to study the impact of Airbnb on the local housing market and have not yet considered any regulations aimed at the short-term accommodation application. Authorities are not prepared if there were to be a rise in the number of Airbnb listings and the possible impact this could have on the housing market and spatial patterns. While the 5 271 listings in Johannesburg are still a relatively low figure, this number is rising and has grown by 90% over the last eight years. This study showed the increase in Barcelona's rental prices due to Airbnb listings and the effect on the local population, moving to areas with lower Airbnb listings. This city has a high number of Airbnb listings per-capita and the concerns by Barcelona authorities can act as a warning to local authorities who could conduct further research about the impact of Airbnb and possible regulations and licencing policies if the application continues to grow in popularity.

In this research, I show that international studies find that Airbnb listings lead to an increase in rental and housing prices for residents. However, in South Africa it is impossible to link Airbnb listings to property price, rental fees or the availability of rental stock as the country is in a difficult economic position which has impacted the entire property market negatively. A single factor such as Airbnb listings cannot be singled out as a factor while the property market is in a state of flux.

Johannesburg is a city divided by its segregationist and apartheid past. The spatial planning undertaken by the democratic government perpetuates spatial inequality, despite several grand vision to change this. Airbnb, primarily an application for leisure and business travellers attracts people to areas which have a high number of amenities, are close to transport systems and have strong infrastructure and connectedness.

Most Airbnb listings in Johannesburg are in the prosperous Northern Suburbs and residents in these areas can use Airbnb as another form of revenue or investment. While areas further from economic opportunities or in neighbourhoods which are perceived to be unsafe with lower standards of living do not have a high number of Airbnb listings if at all. The uneven access to amenities and infrastructure allows residents in areas with relatively high average household incomes to further leverage their homes or properties. This reinforces the concern that aspects of the digital economy perpetuate inequality and allow those who already have access to resources to accrue further benefits

The mixed methods approach and by 'trial and error' interviewing several people in various fields and using data from different sources was a difficult process. Some real estate agents and ward councillors that I approached had not yet even heard of Airbnb. This shows the difficulty in trying to research the digital economy which is relatively nascent in South Africa and there was no previous studies that I could consider and expand upon. Studies in developed countries were able to find a correlation between property prices and rental prices and Airbnb however due to the difficult economic climate and depressed housing market, it was impossible to link Airbnb to housing trends. This was a surprising finding for me as media articles drew a correlation between rising property prices in parts of Cape Town and the short-term accommodation application. Upon further study in Johannesburg, there was no empirical evidence to link Airbnb to the housing market. This showed me the importance of a mixed methods approach to a study as this provides evidence that there is no causality in Johannesburg between Airbnb and Johannesburg.

Further research could be undertaken about the impact of Airbnb on the housing market if the economy improves and property and rental prices rise. It would also be of interest to examine whether the number of Airbnb listings grow as authorities prioritise infrastructure investment in areas in Johannesburg such as Sandton and Rosebank. Further research could also be considered when Census 2021 is conducted by Statistics South Africa, in the next couple of years about the link between data gathered showing the number of households in areas with access to the internet and a computer and/or a smartphone and the number of Airbnb listings in those areas.

REFERENCE LIST

(2018). Retrieved from AirDNA: https://www.airdna.co/vacation-rental-data/app/za/gauteng/johannesburg/overview

2018 World Population by Country (Live) . (n.d.). Retrieved from World Population Review: http://worldpopulationreview.com/

Absa Bank. (2018). *Homeowner Sentiment Index.*

Airbnb Press Room. (n.d.). Retrieved from Airbnb: https://press.airbnb.com/about-us/

Arthurs , H. W. (2018). *The False Promise of the Sharing Economy.* Ottawa: Ottawa Press.

Barcelona. (2018). Retrieved from AirDNA: https://www.airdna.co/vacation-rental-data/app/es/barcelona/barcelona/overview

Barron, K., Kung, E., & Prosperio, D. (2017). *The Sharing Economy and Housing Affordability: Evidence from Airbnb.*

Belk, R. (2014). You are what you can access: Sharing and collaborative consumption online. *Journal of Business Research*, 1595-1600.

Bonner, P., & Nieftagodien, N. (2012). *Ekurhuleni: The making of an urban region.* Johannesburg: Wits University Press.

Bremner, L. (2010). *Writing the City into Being – Essays on Johannesburg 1998-2008,* . South Africa: Fourthwall Books.

Brophy, S. (2018, February 17). *#SONA2018: Most beautiful SA can be tourism hub of the world - Ramaphosa*. Retrieved from Traveller24: https://www.traveller24.com/News/sona2018-most-beautiful-sa-can-be-tourism-hub-of-the-world-ramaphosa-20180216

Brustein, J., & Berthelson, C. (2016, October 22). *Airbnb Will Try to Sue Its Way Out of New York Law's Restrictions*. Retrieved from Skift: https://skift.com/2016/10/22/airbnb-will-try-to-sue-its-way-out-of-new-york-laws-restrictions/

Burgen, S. (2017, June 2). *Barcelona cracks down on Airbnb rentals with illegal apartment squads*. Retrieved from The Guardian: https://www.theguardian.com/technology/2017/jun/02/airbnb-faces-crackdown-on-illegal-apartment-rentals-in-barcelona

Cape Town. (2018). Retrieved from AirDNA: https://www.airdna.co/vacation-rental-data/app/za/western-cape/cape-town/overview

City of Johannesburg: Department of Development Planning. (2016). *Spatial Development Framework 2040.*

City of Johannesburg. (n.d.). Retrieved from Wazimap: https://wazimap.co.za/profiles/municipality-JHB-city-of-johannesburg/?release=2011

Davis, N. (2016, January 19). *What is the fourth industrial revolution?* Retrieved from World Economic Forum: https://www.weforum.org/agenda/2016/01/what-is-the-fourth-industrial-revolution/

Dlwati, V. (2017, October 22). *Johannesburg and Airbnb get into bed*. Retrieved from Fin24: https://www.fin24.com/Tech/johannesburg-and-airbnb-get-into-bed-20171020

Dreyer, B., Ludeke-Freund, F., Hamann, R., & Faccer, K. (2017). Upsides and downsides of the sharing economy: Collaborative consumption business models' stakeholder value impacts and their relationship to context. *ScienceDirect*, 87-104.

Einav, L., Levin, J., Popov, I., & Sundaresan, N. (2014). Growth, Adoption, and Use of Mobile E-Commerce. *The American Economic Review*, 489-494.

Fine, B. (2018). *The Political Economy Of South Africa From Minerals-energy Complex To Industrialisation.* New York: Routledge.

FNB. (2018). *Property Insights: FNB House Price Index.*

Freund, B. (2010). The significance of the minerals-energy complex in the light of South African economic historiography. *Transformation: Critical Perspectives on Southern Africa*, 3-25.

Gauteng Province. (2015). *Transformation, Modernisation and reindustrialisation of the Gauteng City Region:2015-2030.*

Gelb, S. (1990). Democratising economic growth: alternative growth models for the future. *African e-Journals Project*, 25-41.

Guarascio , F. (2018, February 26). *EU plans new tax for tech giants up to 5 percent of gross revenues*. Retrieved from Reuters: https://www.reuters.com/article/us-eu-tax-digital/eu-plans-new-tax-for-tech-giants-up-to-5-percent-of-gross-revenues-idUSKCN1GA25R

Hamnett, C., & Williams, P. (2013). Social Change in London: A Study of Gentrification. *The London Journal: A Review of Metropolitan Society Past and Present* , 51-66.

Harber, A. (2014). *Diepsloot.* Johannesburg: Jonathan Ball Publishers.

Houghton, H. (1960). Men of Two Worlds. *South African Journal of Economics*.

Johannesburg Remains Africa's Most Popular City – Mastercard Global Destination Cities Index. (2018, December 4). Retrieved from Mastercard: https://newsroom.mastercard.com/mea/press-releases/johannesburg-remains-africas-most-popular-city-mastercard-global-destination-cities-index

Kenney, M., & Zysman, J. (2016, Spring). The Rise of the Platform Economy. *Issues in Science and Technology*.

Larsen, J., Urry, J., & Axhausen, K. (2007). Networks and tourism: Mobile Social Life. *ScienceDirect*, 244-262.

Legassick, M. (1974). South Africa: capital accumulation and violence. *Economy and Society*, 253-291.

Lobel, O. (2016). The Law of the Platform. *Minnnesota Law Reviw*, 88-110.

London. (2018). Retrieved from AirDNA: https://www.airdna.co/vacation-rental-data/app/gb/london/london/overview

Maluleke, R. (2018). *Quarterly Labour Force Survey Quarter 3: 2018.* Statistics South Africa.

Maluleke, R. (2018). *Tourism Satellite Account for South Africa, final 2014 and provisional 2015 and 2016* . Statistics South Africa.

Maylam, P. (1995). Explaining the apartheid city: 20 years of South African urban historiography. *Journal of Southern African Studies*, 19-38.

Mbembe, A., & Nuttall, S. (2008). *Johannesburg: The elusive metropolis, edited by Sarah Nuttall and Achille Mbembe.* Durham: Duke University Press.

Mihalic, T. (2016). Sustainable-responsible tourism discourse – Towards 'responsustable' tourism. *Journal of Cleaner Production*, 461-470.

Myambo, M. T. (2017, May 14). *In their rush to become global, hipster-friendly cities risk creating spatial apartheid*. Retrieved from Quartz: https://qz.com/africa/983312/johannesburgs-maboneng-hipster-neighborhood-is-in-danger-creating-a-new-kind-of-apartheid/

National Planning Commission. (2012). *National Development Plan 2030 Our Future-make it work.*

Natrass, N. (1990). The small black enterprise sector. In N. Nattrass, & E. Ardington, *The political economy of South Africa.* Cape Town: Oxford University Press.

New York. (2018). Retrieved from AirDNA: https://www.airdna.co/vacation-rental-data/app/us/new-york/new-york/overview

Nieftagodien, N. (2012). *Orlando West, Soweto: An illustrated history*. Johannesburg: Wits University Press.

Njobeni, S. (2018, September 25). *Tourism council calls for Airbnb regulation*. Retrieved from Business Live: https://www.businesslive.co.za/bd/companies/transport-and-tourism/2018-09-25-tourism-council-calls-for-airbnb-regulation/

Nkanjeni, U. (2017, October 16). *Airbnb and Wesgro to harness share economy for Western Cape with new agreement*. Retrieved from Traveller24: https://www.traveller24.com/Featured/airbnb-and-wesgro-to-harness-share-economy-for-western-cape-with-new-agreement-20171016

Nkanjeni, U. (2017, October 30). *Cape Town Airbnb hosts must adhere to municipal by-law and zone restriction*. Retrieved from Traveller24: https://www.traveller24.com/TravelPlanning/Accommodation/cape-town-airbnb-hosts-must-adhere-to-municipal-by-law-and-zone-restrictions-20

Padayachee, V., & Hart, K. (2013). A history of South African capitalism in national and global perspective. *Transformation: Critical Perspectives on Southern Africa*, 55-85.

PayProp. (2018). *The PayProp Rental Index.*

Phakathi, B. (2018, April 26). *Lift for Uber as new transport bill covers the app-based taxi service*. Retrieved from Business Live: https://www.businesslive.co.za/bd/companies/transport-and-tourism/2018-04-26-lift-for-uber-as-new-transport-bill-covers-the-app-based-t

Policies, by-laws and publications. (n.d.). Retrieved from City of Cape Town: https://www.capetown.gov.za/Family%20and%20home/Meet-the-city/City-Council/Policies-by-laws-and-publications

Poole, S. (2018, October 24). *Airbnb can't go on unregulated – it does too much damage to cities*. Retrieved from The Guardian: https://www.theguardian.com/commentisfree/2018/oct/24/airbnb-unregulated-damage-cities-barcelona-law-locals

Ranchordas, S. (2015). *Does Sharing Mean Caring: Regulating Innovation in the Sharing Economy* . 16 Minn. J.L. Sci. & Tech. 413.

Rogerson, C., & Kaplan, L. (2005). Tourism promotion in 'difficult areas': The experience of Johannesburg inner-city. *Urban Forum*, 214-243.

Rogerson, C., & Rogerson, J. (2016). Intra-urban spatial differentiation of tourism: Evidence from Johannesburg, South Africa. *Urbani izziv*, 125-137.

Salter, J. (2012, September 7). *Airbnb: The story behind the $1.3bn room-letting website*. Retrieved from The Telegraph: https://www.telegraph.co.uk/technology/news/9525267/Airbnb-The-story-behind-the-1.3bn-room-letting-website.html

Samaan, R. (2015). *Airbnb, Rising Rent and the Housing Crisis in Los Angeles.* Laane: a new economy for all.

Sans, A. A., & Quaglieri , A. D. (2016). *Unravelling Airbnb: Urban Perspectives from Barcelona.*

Schneiderman, E. T. (2014). *Airbnb in the city.*

Schor, B. J., & Fitzmaurice, J. C. (2017). Collabarating and connecting: the emergence of the sharing economt. In A. L. Reisch, & J. Thogersen, *Handbook of Research on Sustainable Consumption* (pp. 410-423). Edward Elgar Pub.

Segú, M. (2018). *Do short-term rent platforms affect rents? Evidence from Airbnb in Barcelona.* Munich University Library.

Sheppard, S., & Udell, A. (2018). *Do Airbnb properties affect house prices?* Williamstown: Williams College, Department of Economics.

South African History Online. (2016, August 16). *James "Sofasonke" Mpanza*. Retrieved from South African History Online: https://www.sahistory.org.za/people/james-sofasonke-mpanza

South African Rands (ZAR) per US Dollar (USD). (n.d.). Retrieved from Exchange-rates.org : https://www.exchange-rates.org/history/ZAR/USD/T

Statistics South Africa. (2012). Statistics South Africa.

Stemler, A. (2017). *The Myth of the Sharing Economy and Its Implications for Regulating Innovation.* 67 Emory L.J. 197.

Team, T., & Speculations, G. (2018, May 1 11). *As A Rare Profitable Unicorn, Airbnb Appears To Be Worth At Least $38 Billion*. Retrieved from Forbes: https://www.forbes.com/sites/greatspeculations/2018/05/11/as-a-rare-profitable-unicorn-airbnb-appears-to-be-worth-at-least-38-billion/#488e6b3

Telfer, D., & Sharpley, R. (2015). *Tourism and Development in the Developing World.* London: Routledge.

The World Bank. (2018). *South Africa Economic Update.*

Turner, R. (2018). *Travel & Tourism Economic Impact 2018 South Africa.* World Travel and Tourism Council.

United Nations. (2011). *UN-Habitat Annual Report 2010.* New York: UN-Habitat.

United Nations. (2018). *World Economic Situation Prospects.* New York.

Viswanath , V., Brown, S., & Bala, H. (2013). Bridging the Qualitative-Quantitative Divide: Guidelines for Conducting Mixed Methods Research in Information Systems. *MIS Quarterly*, 21-54.

What Is A Developing Country? Definition And Examples. (n.d.). Retrieved from Market Business News: https://marketbusinessnews.com/financial-glossary/developing-country/

Writer, S. (2018, April 25). *Uber a big step closer to being fully regulated in South Africa*. Retrieved from BusinessTech: https://businesstech.co.za/news/business/240627/uber-a-big-step-closer-to-being-fully-regulated-in-south-africa/

Zervas, G., Prosperio, D., & Byers, J. W. (2017). The Rise of the Sharing Economy: Estimating the Impact of Airbnb on the Hotel Industry∗. *Journal of Marketing Research*.

List of figures and tables