

UNLEARNING AND RELEARNING FOOD MARKETS

A STUDY OF THE SOCIAL AND ECONOMIC FORCES THAT SHAPE
THE JOHANNESBURG FRESH PRODUCE MARKET

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ORIGINALITY DECLARATION

I, Makhanana Malungane, student number 29436852 submit this dissertation in fulfilment for the requirements for a degree for a Master of Social Sciences in Development Studies, titled Unlearning and Relearning Fresh Produce Markets: A study of the social and economic forces that shape the Johannesburg Fresh Produce Market. I honestly declare that the paper is a product of my original research investigation. To the best of my knowledge and belief, it contains no material previously published or written by another person nor does it include contents that are falsified or fabricated. Where other people's work has been used (either from a printed source, internet or any other source), this has been properly acknowledged and referenced in accordance with the requirements as stated in the University of Pretoria's plagiarism prevention policy. I have not allowed, and will not allow, anyone to copy my work with the intention of passing it off as his or her own work.

Signature 

ABBREVIATIONS

APAC	Agricultural Produce Agents Council
ARC	Audit and Risk Committee
BoD	Board of Directors
CAPEX	Capital Expenditure
CCC	Customer Care Centre
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CoJ	City of Johannesburg
ComComp	Competition Commission
DALRRD	Department of Agriculture, Land Reform and Rural Development
EXCO	Executive Committee
FAO	Food and Agriculture Organisation of the United Nations
FMS	Fresh Market System
FRT	Food Regime Theory
GDP	Gross Domestic Product
HLPE	High Level Panel of Experts
HSRC	Human Science Research Council
IDP	Integrated Development Plan
JFPM	Johannesburg Fresh Produce Market/Joburg Market
NFPMs	National Fresh Produce Markets
NAMC	National Agriculture Marketing Council
PMBEJD	Pietermaritzburg Economic Justice and Dignity
QLFS	Quarterly Labour Force Survey

REMSEC	Remuneration, Social, and Ethics Committee
SARS	South African Revenue Services
SAUFPM	South African Union of Fresh Produce Markets
SDA	Service Delivery Agreement
SOPs	Standard Operating Procedures

ABSTRACT

The Johannesburg Fresh Produce Market (JFPM) is the largest fresh produce market in Africa, in terms of volume and turnover, and plays a central role in making fresh produce accessible across Gauteng and surrounding areas particularly to the urban poor through the multitudes of informal traders that source produce at the JFPM. As it is such a large and important market, it is surprising to find that there is limited literature available that unpacks actor interactions at the JFPM, giving special attention to the social and economic forces that shape it.

This dissertation attempts to do so by identifying and examining how these social and economic forces at the JFPM shape the distribution of power among the actors involved, as well as the contribution of the JFPM in making food accessible in light of the state of food insecurity in South Africa. The findings are drawn from a mixed-methods approach using primary and secondary data sources collected between 2019 and 2021. This included the triangulation of quantitative and qualitative data collected.

Presented here, the findings show that the functioning of the JFPM involves a complex interaction between economic and social forces within a regulatory environment that combines free market discourse with high levels of regulation that continue to be influenced by apartheid era governance arrangements, which have not changed much through the decades. Among other factors, this influence is evident in the long-term social relationships among actors of the same ethnic and cultural background. Moreover, these findings highlight the importance of the Market as a source of supply to the informal sector, the role of which is often neglected in policy and development planning in South Africa, and their role in ensuring food accessibility to the urban poor through, among other things, lower prices.

At the broader level, the study suggests that there is a need for the JFPM to be transformed to better fit the changed social conditions and remain economically competitive. This can be achieved through the adoption of policies, planning, market maintenance, and regulations that

are supportive of the JFPM and the nature of operation of the informal traders active in the food system. Moreover, the findings of the study show the importance of unlearning conventional economic understandings of food markets to give more attention to the people and social relations that are just as important for the function of markets and the food system. Interventions should equally consider the implication of economic and social forces on the food system.

Key words: Municipal fresh produce markets, informal traders, policy intervention, food markets, food system.

TABLE OF CONTENTS

ABSTRACT	6
TABLE OF CONTENTS	8
TABLE OF FIGURES	9
1. INTRODUCTION.....	10
BACKGROUND OF THE STUDY	10
RESEARCH OBJECTIVES AND QUESTIONS	15
<i>Research Questions</i>	16
<i>Outline of thesis</i>	17
2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK.....	18
ORIGINS OF THE JOHANNESBURG FRESH PRODUCE MARKET	18
<i>Market Square: 1886 -1913.....</i>	18
<i>Newtown Market: 1913–1974</i>	22
<i>Johannesburg Fresh Produce Market: 1974 – 1993.....</i>	26
MARKET THEORIES	28
FOOD MARKET STUDIES IN SOUTH AFRICA.....	35
FOOD SECURITY AND RESPONSES TO IT	36
CONCLUSION.....	45
3. METHODOLOGY	47
INTRODUCTION	47
PRIMARY DATA COLLECTION	48
SECONDARY SOURCES AND DATA	55
LESSONS.....	57
DATA ANALYSIS	61
ETHICS	63
4. JOHANNESBURG FRESH PRODUCE MARKET TODAY.....	65
MANAGEMENT AND GOVERNANCE.....	65
PHYSICAL SPACES	73
ACTORS AT THE MARKET	79
<i>JFPM staff.....</i>	79
<i>Market agents and salespersons.....</i>	81
<i>Platform Traders</i>	86
<i>Buyers</i>	88
<i>Porters.....</i>	93
<i>Forklift Drivers</i>	95
<i>Gate Controller.....</i>	96
<i>Food Vendors.....</i>	96
<i>Transporters.....</i>	97
<i>Farmers</i>	98
CHAPTER CONCLUSION.....	98
5. ECONOMIC AND SOCIAL FORCES AT THE JOHANNESBURG FRESH PRODUCE MARKET	100
INTRODUCTION	100
DEMOGRAPHICS.....	100
<i>Gender</i>	100
<i>Age</i>	101

<i>Respondent Distribution</i>	103
FINDINGS	105
<i>Rationality</i>	105
<i>Information</i>	106
<i>Strategy</i>	109
<i>The Logic of Buyers</i>	112
<i>Service</i>	112
<i>Price</i>	115
<i>Quality of produce</i>	116
<i>Availability and seasonality</i>	118
<i>Brand loyalty</i>	121
<i>Chapter Conclusion</i>	123
6. UNLEARNING AND RELEARNING MARKETS: DISCUSSION AND CONCLUSION	124
INTRODUCTION	124
DISCUSSION	124
CONCLUSION.....	132
REFERENCES	136
ANNEXURE A – SURVEY TOOL	144
ANNEXURE B – INTERVIEW GUIDE.....	150
ANNEXURE C – CONSENT FORM.....	152
ANNEXURE D – BYE-LAWS MARKET SQUARE	155
ANNEXURE E - RESPONDENTS.....	156
ANNEXURE F – ETHICS APPROVAL	157

TABLE OF FIGURES

FIGURE 1: MARKET SQUARE, 1899. SOURCE: T HILTON	20
FIGURE 2: INSIDE NEWTOWN MARKET. NO DATE. SOURCE: MUSEUM AFRICA	23
FIGURE 3: WHOLESALE VS RETAIL PRICES. RAND DAILY MAIL, 14 AUG 1968	25
FIGURE 4: PREVALENCE OF HUNGER. SOURCE: BUREAU FOR ECONOMIC RESEARCH, NDP ASSESSMENT REPORT 2021	38
FIGURE 5: JFPM HIGH-LEVEL ORGANISATIONAL STRUCTURE. SOURCE: JFPM Q2 REPORT 2020/21.....	66
FIGURE 6: BUYERS QUEUEING TO LOAD MONEY ON TO SMART CARDS. SOURCE: RESEARCHERS PHOTOS	69
FIGURE 7: FLOW OF FRESH PRODUCE AND MONEY AT THE JFPM	70
FIGURE 8: AERIAL SHOT OF JFPM SOURCE: GOOGLE MAPS WITH ADDITIONAL INFORMATION BY RESEARCHER	73
FIGURE 9: PRODUCE ADVERTISING IN THE POTATO AND ONION HUB. SOURCE: RESEARCHER'S PHOTOS	77
FIGURE 10: PORTER PUSHING TROLLEY. SOURCE: RESEARCHER'S PHOTO.....	94
FIGURE 11: BAKKIES LOADING PRODUCE AT UNITY MARKET. SOURCE: RESEARCHER'S PHOTO	97
FIGURE 12: RESPONDENT DISTRIBUTION	104
FIGURE 13: DO YOU THINK BUYERS ARE RATIONAL?	106
FIGURE 14: INFORMATION RESPONSE DISTRIBUTION: INFORMATION RESPONSE DISTRIBUTION	107
FIGURE 15: FOUR-TON TRUCKS BOUND FOR MOZAMBIQUE. SOURCE: RESEARCHER'S PHOTO	117
FIGURE 15: FOUR-TON TRUCKS BOUND FOR MOZAMBIQUE. SOURCE: RESEARCHER'S PHOTO	117

1. INTRODUCTION

The Johannesburg Fresh Produce Market (JFPM) is the largest fresh produce market in Africa, in terms of volume and turnover, and plays a central role in making fresh produce accessible across Gauteng and surrounding areas particularly to the urban poor through the multitudes of informal traders that source produce at the JFPM. As it is such a large and important market, it is surprising to find that there is limited literature available that unpacks actor interactions at the JFPM, giving special attention to the social and economic forces that shape it.

This dissertation attempts to do so by identifying and examining how these social and economic forces at the JFPM shape the distribution of power among the actors involved, as well as the contribution of the JFPM in making food accessible in light of the state of food insecurity in South Africa

BACKGROUND OF THE STUDY

Markets are far more complex than a narrow economic analysis reveals. They are intricate organisms which are influenced by the people who participate in them, directly and indirectly. They are alive and dynamic – ever changing at every interaction. About four years ago, I began writing a working paper on price inequality at the Johannesburg Fresh Produce Market (JFPM), with a particular focus on informal traders. The idea for the paper was inspired by my daily commute from Alberton to work in the Johannesburg Central Business District (CBD), where I work as an economic researcher. On my way to work, I would pass the JFPM and see scores of people walking in and out of the main entrance. Some of them had just arrived in a taxi or by foot, and others were leaving the Market carrying their purchases for the day. It was the people carrying their loads out of the Market that intrigued me the most. The woman who pushed an intricately packed wheelbarrow of various fruits and vegetables while balancing a box of bananas on her head; and the innovatively pimped trolley pushed by a young man with accessories that made it easier to carry more stock than usual.

Driving further towards the Johannesburg CBD, I came across mobile visitors to the Market just after the Vickers Road onramp. I would see different cars, bakkies, and trucks also carrying their supply from the market. On the road, it was visible that some of these cars and bakkies struggled to ferry their produce because of how heavily loaded they often were. Always, there was bound to be a broken-down bakkie or a car that just gave in. As I passed by in my car, I would frequently see passengers of these broken down vehicles helping the driver get the vehicle going again; by either pushing the vehicle to help kickstart it or they would be collecting bricks and rocks to keep the car in place while replacing a tyre or fiddling with the engine trying to figure out what had gone wrong with the vehicle, while another helped to prop up the bonnet so it does not hurt the “would be” mechanic.

With the assumption that the produce in these vehicles belonged to informal traders, I became concerned as to how such breakdowns or disruptions in activity affected their bottom-line. How much did they buy their stock for? Would they be able to make any sales today despite the break-down related stoppage? Similarly, asking these questions through the conventional economics lens led me to believe that informal traders who source their produce from the JFPM suffered from numerous inequalities in comparison to more formalised buyers at the Market. In particular, I assumed that the informal traders faced high levels of price inequality because of how sales were concluded at the JFPM. I hypothesised that informal traders would be worse-off than formal buyers at the market due to, among other factors, limited access to finance, reliable transportation, and storage facilities. It is worth noting that these thematic areas of interest were also driven by a Competition Commission (CompCom) investigation that produced a report titled *14 fresh produce market agents and the institute charge for price fixing on possible price fixing by market agents operating from the Market* (Competition Commission, 2017). I decided to test this theory by developing a price inequality model that would quantify the variance between formal and informal buyers at the market.

Consequently, I produced a thorough literature review focused on neo-classical economic models of perfect competition, price inequality, informality, and fresh produce markets. The literature review revealed the possibility of quantifying the difference between informal and formal buyers at the market using high frequency data and behavioural models. While I began to write the paper, I realised I did not actually understand how the JFPM functioned, despite

all the desktop research and my countless drives past the Market. It was at this point that I realised it would be irresponsible to write about the Market without actually finding out how it worked first. Therefore, the only way to find out about how the Market works was to visit the JFPM itself.

I visited the market the following Saturday. When I got to the market I was baffled by the scores of people and activity I witnessed inside the premises of the Market. These people were far more than the ones I would see on the road on my daily work commute. All the people I saw were consumed by whatever they were doing, whether it be driving a forklift, counting money, walking, or pushing a trolley. Additionally, I was shocked by the other stores you could find there: a butchery, fishmonger, wholesale cash and carry, bottle stores, banks, and agro-processing warehouses. I was simultaneously mesmerised and felt like I was intruding, so I drove out of the market without stepping out of the car. Three more times I attempted to visit the Market on a Saturday but sheepishly drove out within 20 mins each time. On my fourth visit, I stepped out of the car and attempted to ask some people within about the Market but got nowhere. Most people just stared at me impatiently or referred me to someone else, however, they never explained to me how the Market worked. Once again, I felt like an intruder and left. I concluded that I required a different approach, consequently, I reached out to my network for someone who bought fresh produce from the Market and was willing to orientate me about the innerworkings of the market. Finally, I was able to locate a woman who supplied fresh produce to the national school feeding scheme programme and patronised the Market for her supplies.

Together, we visited the Market a few days later just before 6am, although we had been up since 4am "collecting data" such as produce stock levels and prices on *WhatsApp*, the Department of Agriculture, Land Reform and Rural Development (DALRRD), Market Information System (MIS) and the JFPM website. I was, particularly, impressed by her data collection skills on *WhatsApp* which involved several simultaneous audio and video calls, messages, and voice notes across various group chats. Evidently, my guide was well known by the people of the Market, and each time we came across someone she knew she would introduce me as her sister – despite looking strikingly different. However, what was most remarkable is that everyone we came across spoke Xitsonga which is a language spoken by an

ethnic minority in South Africa – in fact, even the white market agents spoke Xitsonga and seemed to come from the same province as both my guide and I. It was like I was back home in Tzaneen. Furthermore, I witnessed that informal traders had far greater clout than I had initially thought. Informal traders bond together to collect enough money to buy whole pallets of produce they all want, share transport and meals, lend money to each other, and have built good relationships with the market agents to the point of sharing stories and jokes and asking each other after their loved ones.

Observable were the symbiotic relationships¹ between people in the formal and informal hubs at the market (Wegerif, 2017). People in these two markets, although servicing different consumers segments, did not seem to find one more superior to the other. On the contrary, I was shocked to see how they acknowledged each other's contribution to the market community. The market agents valued informal traders, particularly the *mamas*. For instance, I observed a male Afrikaner market agent attempt to gain the business of a “mama” dressed in her worn out brown Shweshwe “vaskoti” who sold kotas in a nearby township. His interactions with the *mama* were deliberate and showed that he respected and valued her business. Given my personal and professional background, what I witnessed was unheard off. I would later find out from my guide that the *mama* was a “big buyer” at the market and bought an estimated R100 000 worth of stock per day. Another fascinating observation was the lower number of South African buyers on the market floor. Many of the buyers, mainly informal traders or exporters, came from neighbouring countries of Mozambique, Lesotho, Zimbabwe, and Zambia. Mozambican buyers made up the lion's share of customers we came across, particularly women buyers and the market has dubbed them “*Maputo Mamas*”. The *Maputo Mamas* were familiar with my host, and when we came across them, they would share prices and ask after loved ones. Once more, this interaction did not align with conventional economic theory which states that buyers are rational and seek to maximise their income. The influence of other African countries was not limited to buyers at the market but also sellers in the less formal Mandela and Unity mainly originated from East and West Africa. When my host and I stepped into these markets I was amazed at how similar they were to

¹ This concept will be explained later in the text.

markets I had visited elsewhere on the continent. This was evident in the language spoken, the packing of produce, counting of money, and the arrangement of the individual enterprises.

As an economist, what I saw at the market truly astonished me as I clearly held the preconceived notion that the JFPM was like the markets I read about in my economics textbooks. In these textbooks the market was supposed to be solely a platform where buyers and sellers met in order to maximise utility devoid of social influences such as culture, kinship, and trust. In my mind, I did not consider the people and the range of social relations that made the market what it is nor how their interactions affect how the food I eat finds its way to my table. Moreover, I was convicted by how one-sided policies relating to food security and informal traders were developed and implemented. It became evidently clear that although policy development includes stakeholders' engagements within the food system, it seldom factors in the socio-economic interactions between these "stakeholders" and how these forces affect the attainment of food security.

From this initial experience, I wrote my working paper later that year (2019) and drew my findings from two closed-ended questionnaires based on conventional economic theory. The findings proved the existence of social forces that shape economic transactions at the market and recommended the application of behavioural economics methods to sway activities towards more optimal and efficient levels of production at the Market, resulting in a lower incidence of food insecurity in Gauteng.

After completing the working paper, I continued to visit the market often and over time, I came to realise that my working paper recommendations were flawed. I had neglected the people behind the market who drive the social forces revealed in my findings. It was the interactions of people and communities at the Market that had captivated me during my first visit along with how these interactions affect economic activities and are seldom accepted in conventional economic discourse. To better understand this, an unpacking of the innerworkings of the JFPM was necessary - which has not been done before. At this point, it became clear that while my educational background in economics, which is underpinned by narrow (one-sided) theories and frameworks, could serve as the base of my understanding of the JFPM, it needed to be supplemented by an understanding of the people responsible for the

innerworkings of the Market. The questions began to arise: who are they? Where do they come from? What governs the tacit agreements central to the community I observed at the Market? Moreover, this realisation demonstrated that I had to undergo an unlearning process of some of the assumptions I had about markets based on conventional economics. This was necessary for me to learn the true nature of the JFPM by understanding the combination of different socio-economic forces that shape the largest fresh produce market on the continent.

With the clarity that any attempt in understanding the real innerworkings of the market would require a multi-disciplinary approach under academic supervision, I enrolled in the Master of Development Studies programme at the University of Pretoria with the intention to write a thesis that unpacks my journey of unlearning the assumptions I had before visiting the Market. Therefore, the following thesis delineates this journey of unlearning and relearning by depicting the nuanced insights that I drew from the countless conversations I had with the people I met at the Market, observations I made while sitting on crates and forklifts during the early morning rush; the quiet late hours of the day while waiting for deliveries with market agent employees; walking around the Market; watching a soccer tournament between market agencies; eating a bountiful plate of food at one of the local kiosks listening to Xitsonga music in the background; interviews conducted; as well as, secondary and statistical data collected during the research period.

RESEARCH OBJECTIVES AND QUESTIONS

The objective of this dissertation is to increase our understanding of how the JFPM functions and its contribution to the South African food system, food security, and livelihoods of those who participate in it. This is achieved through the fundamental description of the JFPM which serves as the building blocks for much of the findings included in this dissertation. With such insights it is hoped that the JFPM will garner much needed support which could increase the positive externalities derived from its activities.

Building on the works of Chikulo et al. (2020), Wegerif (2018), Malan (2015), Black (2012), Viteri (2010), and Callon (2007), the following chapters of this dissertation present an analysis of the economic and social forces that shape the JFPM. This includes the examination of how social and economic forces at the JFPM shape transactions, the distribution of power among actors

and the contribution of the market to making food accessible (which is essential for food security efforts). Additionally, this study sheds further light on the analysis of fresh produce markets from both an economic and social point of view by chronicling the journey of unlearning and relearning the true nature of municipal [fresh produce] markets during the course of my Masters project.

The process of achieving the objectives of this dissertation is based on the question: *What are the social and economic forces that shape the functioning of the JFPM?* However, before this can be answered it is necessary to describe the Market in detail, as this improves the understanding of the findings below whilst it also increases the body of knowledge of fresh produce markets at the micro-level by offering detailed insights which were not found in the available literature reviewed during the compilation of this dissertation. As a result, the specific research questions addressed by this dissertation are as follows.

RESEARCH QUESTIONS

How is the JFPM organised?

- a. What are the physical attributes of the Market?
- b. Who are the key actors in the JFPM?
- c. What are their (key actors) contributions to the innerworkings of the JFPM?

What are the social and economic parameters of transactions at the JFPM?

- a. When do social forces overshadow the rational economic objectives of actors at the JFPM?
- b. When do economic forces override social forces (embeddedness) at the JFPM?
- c. How do economic and social forces influence the sales and the distribution of power at the JFPM?
- d. Who are the biggest losers and winners at the JFPM?
- a. What is the development contribution of the JFPM? How does the JFPM impact fresh produce accessibility for urban residents in poverty?
- b. How does the JFPM contribute to livelihoods and the wider food system and economy?

OUTLINE OF THESIS

The rest of the dissertation will be structured as follows, chapter two will focus on the history of the market as well as a literature review and theoretical framework. These include market studies and the theory of markets, qualifying the relevance of the study in relation to other work conducted on fresh produce markets in South Africa, elsewhere on the continent and the rest of the world. In addition, this chapter briefly delves into the state of food security in South Africa and creates the link between national fresh produce markets and the provision of food. Moving further, chapter three will present the methodology; the research methods used to acquire the findings for this dissertation. It delineates the data collection and analysis journey and highlights specific points of unlearning and relearning by the researcher.

In chapter four the study delves into the JFPM today breaking down the layout and functions of the present-day market and the actors that participate in it, all according to the data collected by the researcher during their research. Chapter five examines the economic and social forces at the Market based on findings from the surveys and semi-structured interviews conducted by the researcher. This results in the identification of the most dominant economic and social forces that shape the JFPM and transactions in it. Chapter six provides a discussion of the findings, analysing the development the JFPM and its contribution to food security and livelihoods before making final recommendations and conclusions.

2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK.

This chapter begins by contextualising the JFPM paying specific focus on the historic development and institutional arrangements that may have shaped its current operations and functions. Secondly, the theories behind this dissertation are also presented: theory of markets in order to highlight the gaps that exist in the lack of exploration of fresh produce markets such as JFPM. Thirdly, the chapter also highlights the state of food security in South Africa, and area where the government is failing to ensure adequate provision for all citizens. This exploration of food insecurity is essential in creating a context for which the JFPM can contribute to the solution.

ORIGINS OF THE JOHANNESBURG FRESH PRODUCE MARKET

MARKET SQUARE: 1886 -1913

Dominant current historical narratives - that tend to overlook earlier African lives and knowledge of gold in the area - suggest that gold was discovered on a farm called Langlaagte, in what is now the Gauteng Province of South Africa, by George Harrison in February 1886 (Phillips, 2013: 122). This discovery led to further explorations on nearby farms, leading to an increase in the number of people living in the small farming community. These people sourced their food directly from a few local farmers in Ferreira's Camp and a square in Marshall's Dorp. Within eight months, gold deposits were discovered in eight additional farms which were all proclaimed public diggings by the government (Cripps, 2012).

The future economic prospects from these discoveries meant the small farming town's population would continue to increase therefore requiring a permanent residential area. A village, with almost 1,000 stands, was established on vacant land in-between three farms called Randjelaagte. This village would be called Johannesburg. The Kruger Government sold at public auction the building plots for the village (including plots for commercial use) in December 1886. Mr Stephanus Papenfus won the auction for the concession for an open-air

market named Market Square that occupied 36,232 square meters² of the city centre (Cripps, 2012; Latilla, 2018).

Papenfus, the inaugural Market master, officially opened Market Square, on 1 February 1887. The open-air market sat between Rissik, Sauer, Market, and President Streets and housed general dealers and fresh produce stalls. Among other items, fresh produce stalls on the east end of the square sold fresh fruits and vegetables, milk, eggs, butter, mealies, kafir³ corn, and other non-perishable food products. Meanwhile, buyers bought their meat, fish, chicken, and pork on the square's east end (Cripps, 2012; Davie, 2018). The government issued a concession which prescribed the distribution of proceeds derived from the activities in Market Square. As a result, the Market master and Sanitary Board received 10% and 0.5% respectively of the turnover generated through Market Square (Cripps, 2012: 105).

Evans et al. (2018) states that Market Square received goods from all regions of the country which were auctioned on site (Figure 1). The fresh produce was sourced from farmers of all races, with records showing that black and white farmers sent fresh produce from the Free State, Transvaal, and Natal provinces. Meanwhile, farmers of Portuguese⁴, Italian, Chinese and Indian descent handled fresh produce sourced locally. The farmer would bring his produce to the market and sell it to a middleman (broker or wholesale merchant) at an agreed price based on supply and demand. For example, an influx of grain supply lowered the price, whereas a decline in grain supply resulted in a price increase. In addition, exogenous factors such as health shocks and economic conditions affected the prevailing prices (Cripps, 2012; Keegan, 1981). The middleman then sold this produce to buyers like Indian and African hawkers, shopkeepers, mining houses, and housewives.

² 1,300 feet by 300 feet, F Addington Symonds, *The Johannesburg Story*, Frederick Muller, London, 1953, p.52

³ The term “Kafir”, that is a derogatory word used in colonial and apartheid times to refer to black people in South Africa, is used in this section as it plays an important role in understanding and contextualising the JFPM of today. It is also a true reflection of the terminology used during the period under review.

⁴ Portuguese in this instance, refers to traders who are of Portuguese descent. These traders have spent limited or no time in Portugal and most were born in South Africa. However, they use the term to refer to themselves.

It is estimated that Indian hawkers and shopkeepers were the largest buyers of fresh fruit and vegetables from Market Square, accounting for 50% of all produce sold in 1896 (Cripps, 2012: 114). The dominance of Indian fruit resellers is evidenced in *The Star* newspaper of 10 July 1896, which estimates that 500 Indian middlemen were responsible for 60% of the fruit sold in Johannesburg. An example of how an Indian hawker determined their prices is also given in the newspaper:

"The majority call at the saleroom in the morning and purchase from ten to fifteen shillings worth of fruit and set out on their daily rounds or take up a position in the Market-square or Marshall's-square. Rajesh's price list is a most flexible affair. Generally speaking, he begins in the morning by charging, or rather asking, a profit of fully 100 per cent. Still, with all the haggling of the housewives, and especially of their domestics, he is satisfied if he earns a clear 50 per cent on his forenoon's transactions. Sometimes he may be almost equally lucky in the afternoon, but as a rule he has to be content with a rate yielding not more than 35 per cent. On an average the street-vendors earn from 3s to 7s 6d per day" (The Star, 10 July 1896)



Figure 1: Market Square, 1899. Source: T Hilton

The role of Indian shopkeepers and African hawkers in the fruit and vegetable supply chain became apparent in 1895, during the smallpox outbreak when the government banned Africans and Indians from selling fruits and vegetables in the town to curb the epidemic, which consequently led to a drop in wholesale fresh produce demand – a major contributor to middleman income. In addition, this ban adversely affected the distribution of produce in areas where Africans and Indian hawkers serviced, such as the mainly European occupied suburbs of Johannesburg (Cripps, 2012). A similar thing occurred during my research in 2020 due to the Covid-19 pandemic when the government ban on the operation of street traders, who are almost exclusively African, impacted the supply of fresh produce to low-income areas (Wegerif, 2020) and, from my observations and interviews, it led to a significant drop in demand at the JFPM.

The rise in population around Johannesburg correspondingly increased activity in Market Square, which prompted the need for a permanent market building within 14 months of its opening in February 1887. The new market building opened in May 1888, and the revenue generated from stalls, shops, offices, and room rentals, public entertainment bookings, and government office rental income added to the Market master's (Papenfus) intake. However, Papenfus sold his market monopoly concession to Langebrink at the end of 1888. During Langebrink's tenure, the sales commission and stall rents received by the Market master for the activity carried inside the market building halved from 10% to 5% in 1889. It is noteworthy that the loss in commission income (generated inside the market building) was somewhat recouped through a 2.5% commission for activity conducted outside the market building; 1% of these commissions were paid to the government. Eventually, Langebrink sold his concession (including a 99-year lease on part of the Market Square) to the Johannesburg Market Buildings Company Limited in October 1889 (Cripps, 2012: 105-110).

In 1901, the population of Johannesburg increased again due to the post-Boer-war influx. The higher population had a negative impact on the city's cleanliness and thus increased outbreaks of diseases such as smallpox. As a result, the Johannesburg Town Council issued by-laws to improve the cleanliness of Johannesburg, including Market Square and its vicinity, in April 1902. The Market Square by-laws (Annex D) covered operating hours, issuing of licences,

allocation of stalls and stands, fee structures, and the powers of the Johannesburg Town Council.

In February 1906, the Johannesburg Market Buildings Company Limited sold its monopoly concession to the Johannesburg Town Council for £189,750, chiefly due the effects of Bubonic plague on profits. The Bubonic plague had resulted in the one-year closure of the Market Square building in 1904 after the fixtures inside the Market building were burnt as part of a disinfection measure. During this time, fresh produce was sold from tables placed between Loveday and Harrison streets, decreasing the commission and rental income collected by the Market master, resulting in an estimated £19,000 loss in income during this period. The Johannesburg Market Buildings Company Limited attempted to claim back some of these losses from the City Council with limited success, making the concession on Market Square less lucrative.

Market Square continued to operate in the same location under the control of the City Council's Parks and Estates Committee until 1913. When the Council's Parks and Estates committee took over, the inside of the market hall comprised of long rows of tables of fresh produce auctioned by Jewish, Greek, Portuguese, Syrian, and a few Afrikaner vendors (Cripps, 2012: 144).

NEWTOWN MARKET: 1913–1974

The shift from using ox wagons to a high adoption of rail for transport required that the food market move closer to the railway line. The expanding activities at the market also required more space, so in 1913, the activities of Market Square moved to a market hall on an 11-hectare complex, called Newtown Market, on Bree Street (Davie, 2018). The Newtown Market was the premier building of its type at the time (Figure 2). Bigger than Market Square, the new location was more prominent and better organised.

The complex comprised of wholesale and retail markets, as well as an Indian fruit market. The wholesale market operated from 7:30 am to 12:00 pm in the main hall depicted in Figure 2. Here patrons could buy bulk fruit, vegetables, flowers, butter, eggs, fish, and meat. Some

operations extended outside the market hall, such as those of the bulk sale of grain, meat, and poultry (Davies, 1994).



Figure 2: Inside Newtown Market. No date. Source: Museum Africa

With a parking lot separating the wholesale and retail markets, the retail section of Newtown market consisted of 262 "table spaces" that accommodated farmers selling directly to the public, along with 44 fruit and vegetable stands and 28 foodstuff shops specialising in the sale of less-perishable food packaged in sacks, packets, and tins, such as flour, sugar and coffee, salt, and tinned foods. Some of the stalls operating in the retail market sourced their supplies from the wholesale market. In addition, the retail market included fresh fruit and vegetables sold by local market gardeners and farmers in the area, 41 shops, a bank, a post office and a restaurant. It opened before the wholesale market at 5 am and closed at 6 pm (Davies, 1994; Day, 1968).

The Indian Fruit market with 12 shops was relatively smaller than the wholesale and retail markets. Despite the minimal trading space, Indians accounted for 70% of wholesale distribution to the 1,200 fresh produce shops in Johannesburg in 1968 (Day, 1968). Indian traders were highly praised for their negotiation and produce selection skills passed down from generation to generation. According to Day (1968: 11):

“Indians have made market buying a fine art. Many are third-generation buyers who can judge the quality, age and shelf-life with a quick glance or a light touch of the finger.”

The number of black fresh produce traders is unknown during this period, however, "a small community" of black traders legally operated from the Newtown Market (Wafer, 2011: 115).

In 1963, the government introduced selling goods by private negotiation between market agent and buyer (which included out-of-hand sales) as the sole mode of transaction at municipal markets. A minimum of one unit (i.e., a box of tomatoes, a pocket of onions or a carton of apples) was required for a sale to be concluded. It is assumed that market agents operating at Newtown Market were regulated by the by-laws introduced by the Johannesburg Town Council in 1902 until the Transvaal Local Government Ordinance of 1939, which assigned the responsibility of operating markets to provincial governments.

A COMPARISON of some of the fresh produce prices at the Johannesburg municipal wholesale market at Newtown and general retail prices shows:

Retail	Wholesale
Beans: 10c—20c a lb.	R0.70—R4.50 a pocket (25 lb.)
Cauliflower: 5c—15c each.	R0.80—R5.10 a crate (25-35 heads)
Carrots: 3c—10c a bundle	R1.00—R4.00 a crate (about 230 lb.)
Cucumbers: 5c—10c each	R0.80—R4.50 a pocket (about five doz.)
Gemsquash: 40c—70c a dozen	R0.90—R4.00 a pocket (about five doz.)
Lettuce: 5c—15c each	R0.50—R3.50 a crate (five doz. heads)
Potatoes: 3c—5c a lb.	R0.60—R1.30 a pocket (37½ lb.)
Apples: 20c—60c a dozen	R1.20—R3.70 a box (12 dozen)
Avocado pears: 5c—10c each	R0.40—R0.90 a tray (12-24 in a tray)
Grapes: 10c—15c a lb.	R0.60—R1.20 a tray (10 lb.)
Pawpaws: 10c—20c each	R0.30—R0.90 a box (six in a box)

Figure 3: Wholesale vs Retail Prices. Rand Daily Mail, 14 Aug 1968

According to Bester (1966: 16) the move away from auctioneering of fresh produce modernised the municipal markets by eliminating expensive administrative tasks such as data capturing of sales and sales commission payable to the farmers. A farmer paid market agent commissions to the market agent (between 10% and 12.5%) and respective Market master based on the selling price of the produce. Noteworthy, is that the commission rate paid to farmers in the Union of South Africa were relatively higher

than those paid by farmers elsewhere in the world of between 7% and 10% in 1966. Moreover, farmers selling their produce through municipal markets were not protected through guarantees, as in the United States of America (USA), and England (Bester, 1966).

The introduction of out-of-hand sales increased the number of private buyers inside the market hall, such as housewives. It is estimated that housewives saved between R5 to R10 on a monthly fresh produce bill which usually cost R20 in the retail markets that source from the Newtown Market. For example, housewives paid less for leafy vegetables in the wholesale market, which boasted a 13% to 100% markup at the retail level. The difference in wholesale and retail prices is presented in Figure 3 above (Day, 1968: 11).

Over the decades, Newtown Market established itself as the food retail and wholesale trade hub of the Union of South Africa and its neighbouring countries. Day (1968: 11) states that Newtown Market accepted 350 rail goods trucks daily and facilitated the sale of an estimated 2,000 tons of fresh produce through 27 market agents per day, resulting in an average annual wholesale turnover of R20 million per year, which accounted for a third (33.3%) of the aggregate turnover of South Africa's 102 municipal markets by 1968. Despite the stellar

financial performance, South African municipal markets, including Newtown Market, had no refrigeration equipment and cold storage facilities. This, coupled with the lack of up-to-date statistics of sales concluded on the municipal markets, decreased the negotiation power of the farmer in favour of the market agent (Bester, 1966: 16).

Fresh produce markets were identified as a critical lever for domestic economic development in a report published by the South African Department of Agricultural Economics in 1967. The report advocated for the establishment of municipal fresh produce markets that serviced two or more towns as distinct markets of national interest markets (Chikazunga et al., 2008). The wholesale Newtown (Johannesburg) Market was one of these national interest markets, given its contribution to retail and wholesale activity in the Republic of South Africa. Furthermore, this report served as the base for the Commission for Fresh Produce Market Act (Act no 82 of 1970), Agricultural Produce Agency Sales Act (Act no 12 of 1975) and Section 84 of the Marketing Act (Act no 59 of 1968).

Given this change in the national economic agenda, the Johannesburg City Council began to build the JFPM on a 63-hectare complex in City Deep as a relocation site for the wholesale Market of the Newtown Market in 1964. The conceptualisation of this Market was based on a global benchmarking exercise with an administrative block, six restaurants, refrigeration equipment, cold rooms, a post office, police station, and filling stations, and cost R19.5 billion to erect over ten years (Day, 1968).

JOHANNESBURG FRESH PRODUCE MARKET: 1974 – 1993

The JFPM opened as a wholesale commission market in September 1974. It accommodated over 400 trucks per day. A review of the photographic archives held by Museum Africa reveals the activities were similar to those conducted at the Newtown Wholesale market. Buyers were able to buy a single unit of fresh produce and could also buy in bulk from the wholesale market. The market agents in the formal hubs were mainly of English, Portuguese, and Afrikaans descent and referred to as salespeople or market agents. Additionally, a portion of the proceeds generated was paid to the Market master, as has been the case since the inception of the market. The floor space that the market agents used was generally shared by people of the same ethnicity or culture. These people would form cooperatives comprising of farmers

and sellers, where the farmers provided the produce, while the market agents sold the produce at the JFPM.

Moreover, members of the cooperatives were familial, or culturally and ethnically related and had long-standing relationships that were forged before the Market moved to City Deep. For instance, members in a cooperative could be members of immediate or extended family or shared the same ethnicity or culture. Interviews further indicated that cooperatives run by market agents of English descent specialised in fruits sourced from English farmers particularly from Natal and the Cape, while Afrikaans owned cooperatives were getting their produce from as far north as the Mooketsi area in the north of the then Transvaal province, and the maize triangle which fell between the Transvaal and Free State colonies, and part of the Cape province. This maize triangle existed in an area where a high volume of maize and corn is produced, and these Afrikaans cooperatives also specialised in produce such as tomatoes, potatoes, and onions. On the other hand, Portuguese-based cooperatives were made up mainly of Portuguese descendants and specialised in vegetables, particularly those produced near Johannesburg in areas such as Boksburg, Germiston, Heidelberg, and Mpumalanga.

Meanwhile, the sellers of Indian descent operated from smaller halls located between the vegetable and fruit hub, sold all types of produce, and were viewed as the main supply of produce for housewives. Akin to sellers in the formal hubs, Indian sellers also relocated from the Newtown Market to the JFPM. These sellers did not procure produce directly from farmers but from the formal hubs and were called platform traders and were expected to pay a fixed rent rate to the Market master.⁵ Unfortunately, the contribution of black sellers to the Market at that time is unknown, however, interviews indicate that black people were employed by market agencies and bought produce in bulk from the Market.

After a few decades, some of the members of the cooperatives left to start their own market agencies or open businesses on the premises of the JFPM. Meanwhile, some farmers left their cooperatives because of alternative marketing opportunities offered through direct marketing

⁵ This and other information shared here on the Market was gathered from in-depth interviews.

by commercial supermarket chains and agro-processors. Farmers found the strict selling hours, sales made before selling hours (which were prohibited), the handling of produce, low representation of farmers on market advisory committees, and limited produce price information sharing reduced the profits they could gain using municipal markets (Piccionce and Nieuwoudt, 1983). Bester (1966) and Piccionce and Nieuwoudt (1983) state that the exodus of farmers led to a decline in the volume of produce sold through national fresh produce markets.

The subsequent decline in fresh produce sent to the JFPM led to an investigation by the Human Science Research Council (HSRC) in 1991. While the study has not been shared with the public, according to the report on the investigation into the fresh produce market compiled by the National Agricultural Marketing Council (NAMC) in 2007, the HRSC report indicated that a structural change was required to maintain national fresh produce markets as points of key economic interests.

MARKET THEORIES

Several market theories are relevant to understanding the activities that shape the JFPM and are discussed in this section.

Studies explained in the next section on Food Market Studies in South Africa have tended to be narrowly economics focussed, and similar studies have been conducted across the world. Richards and Patterson (2003) investigated competition in six US metropolitan fresh produce markets. Cao and Mohiuddin (2019) analysed agro-food supply chains for fresh produce price formulation in rural China. Caillou and Baptista (2008) conducted a multi-agent based simulation for decision making at Rungis food market in Paris France. Siame et al (2020) unpacked the informal and formal food system that makes up the Soweto retail and wholesale market in Zambia. Meanwhile, Reddy et al (2012) examined the price trend and integration of wholesale markets for onions in metro cities of India to name but a few.

Conversely, Malan (2015) went further than most studies by analysing the perspectives and social organisation of fresh produce farmers who participated in a food security intervention

initiated by the City of Johannesburg including their links with the JFPM. A review of the literature revealed that research, such as Malan's (2015) that gives specific attention to social relations in the South African food system, are few and far between. However, similar work has been conducted by the likes of Chikulo et al. (2020) and Wegerif (2018) in other parts of the African continent. Wegerif's (2018) analysis utilised ethnography to map urban food supply in Dar es Salaam, Tanzania. While Chikulo et al. (2020) also used ethnography to study the Mbare Musika market in Harare, Zimbabwe. Both studies found social factors shaping market relations alongside narrowly economic considerations, and applied an actor-orientated ethnographic approach which focuses on gaining an "understanding of social change to unpack the interplay and mutual determination of internal and external factors and relationships, which recognise the role played by human actions and consciousness" (Van der Ploeg and Long, 1994: 64).

The JFPM is an iteration of a market as described by Schneider et al (2015: 190) as it comprises a plenitude of markets that are interconnected but competing against each other at the same time. There is no single market theory that can explain the phenomena observed at the JFPM, instead, the JFPM displays a kaleidoscope of market theories and disciplines that work in concert with each other. The most dominant of these are in economics, economic anthropology, and economic sociology, all disciplines that overlap and intertwine resulting in the need for an interdisciplinary approach to understanding JFPM. This, subsequently, necessitates a heterodox examination of the possible market theories that are observable at the JFPM, beginning with a broad-based review of available literature on market theories serving as the baseline followed by the sifting of theories, and identification of the most suitable market theories to explain what was observed during the research at the JFPM.

Firstly, the economic view of markets is one of the leading theories that this study applies in order to explain the activities, as well as interactions, at the JFPM. This theory proposes that there is a single market which is controlled by an invisible force that ensures equitable distribution of factors of production namely, labour, capital, land and entrepreneurship by rational people (Hahn, 1981; Kennedy 2014; Smith 1759, Hovenkamp, 1988). Further, it states that markets operate under conditions of perfect competition and according to Stigler (1957: 14):

“...perfect market competition will prevail when there are an indefinite number of traders (no one of which controls an appreciable share of demand or supply) acting independently in a perfect market. A perfect market is one in which the traders have full knowledge of all offers and bid prices”.

Moreover, he states that for perfect market competition to exist the following axioms ought to be met: 1) rational decision making; 2) economic mobility i.e. no transaction costs to enter the market; 3) perfect, continuous, costless intercommunication among participants; and 4) atomisation - every participant acts in their own interest (Stigler, 1957: 12).

Secondly, the neo-classical economic theory postulates that an economic agent participating in any market is rational when they are employing utility maximising behaviour that minimises costs and maximises returns based on perfect information. This decisive and rational economic agent is referred to as the economic man or ‘homo economicus’ (Urbina and Ruiz-Villaverde, 2019). The economic man is said to possess constant preferences that are emotionally-void and are not swayed by exogenous factors such as patronage, previous experiences, social context, or environments and the framing of economic problems (Nell, 1975; Presscourt, 2010, Ball and Mankiw, 2023)

The practicality of the neo-classical economic analysis of markets has long been challenged by the likes of Granovetter (1985) who states that market interactions/functions are not only shaped by economic motives but by social motives as well. He popularised the concept of economic relations being “embedded in social relations” as a way to describe the interconnectedness of the social and economic. He additionally cautions that overlooking the interconnectedness of these interactions by using binary classifications of economic actors as being either over-socialised or under-socialised is a “grievous misunderstanding” as it neglects the social interactions that befall behaviour and intuitions (Granovetter, 1985: 482).

Likewise, Aldred (2012) supplements Granovetter’s position stating that economic actors are swayed by other factors such as framing effects, availability, advertising, inaccurate predictions, peak-end evaluations, as well as self-control problems. Additionally, he states that

the underlying principle of consumer sovereignty or under-socialisation neglects social factors such as altruism, trust, and cooperation when making decisions. He names this method of consumer choice as ethical economics (Aldred, 2012). Callon (2007) agrees with Aldred (2012) indicating that there is an intersection between economic and social interactions, and, in his view, economic markets are “socio-technical arrangements or agencements” (STAs) which involve multiple influences that are not mutually exclusive to one another.

Thirdly, Fourcade (2007: 1015) takes it further and identifies four main social representation of markets that are underscored by the concept of embeddedness: the social networks that sustain them, the systems of social positions that organise them, the institutionalisation process that stabilises them, and the performative techniques that bring them into existence. The rationale behind these identified representations is that markets are the culmination of hybrid interchangeable networks that give rise to societies. Block (1990) concurs and cites Polanyi (1957) in claiming the existence of cultural influence on capitalistic societies, particularly due to religion and kinship. The broader view of capitalistic societies has subsequently led Polanyi to a secondary definition of economics, that is similar to Granovetter’s view of embeddedness, called the substantive meaning (Polanyi, 1957: 243). This meaning encompasses the endogeneity of factors that are considered exogenous in conventional economic theory, essentially asserting that the economy is not separate from society (Guiso et al, 2006; Pomeranz and Topik, 2014).

Fourthly, the role of context is highlighted in the arrangement of markets. According to Schneider et al (2015: 190) there are a plenitude of distinct markets which co-exist within a specific market in any given situation. Although these markets are interconnected with each other, they are simultaneously in competition with each other. Moreover, there are attributes among some of these markets that are considered nested markets because of certain features the markets exhibit. Nested markets have been identified as important for farmers, for food marketing, and for rural development (Schneider et al, 2015; Van der Ploeg et al, 2012). However, it is noteworthy that not all markets operational within an economy are nested markets, and the JFPM exhibits the characteristics of such markets because it meets the following conditions:

1. The JFPM is a fresh produce distribution nexus for South Africa and the SADC region. It operates in conjunction and simultaneously with other markets. For instance, there are several markets that operate concurrently with the core functions of the JFPM. The bakkies and cars used to transport fresh produce also transport other goods sold at the market such as snacks and beverages. Similarly, the taxis used also transport people bound for different destinations than the JFPM. Another example is the coexistence of the cooked food market and the fresh produce market, which operate in tandem with one another and feed into each other.
2. The mutual understanding between actors makes the JFPM institutionally embedded. It is the bedrock of the Market.
3. There is an apparent socio-material infrastructure, however, in this instance, the flow of produce is not circular but radial in nature. As mentioned above (1), the JFPM is a distribution nexus. The produce is sourced from all over the country to the Market and then it is distributed, through vendors, to final consumers. Therefore, there is no feedback loop between producers and final consumers. For instance, a farmer based in Limpopo sends tomatoes to the Market to be sold. The produce is brought by various buyers that service different socio-economic groups mostly in Gauteng without feedback loops back to the provinces and farmers where the food is from.
4. The JFPM is a common pool resource (CPR) due to its role and status as a public space and entity wholly owned by the City of Johannesburg (CoJ). It functions under a set of implicit and explicit rules that govern the use of the resources such as infrastructure. Similarly, the collectively shared demand which visits the JFPM and trading floors that sellers (market agents and platform traders) operate from are a CPR. The two categories are managed in line with the principles of CPR.
5. The JFPM was established as an aggregator of fresh produce from both commercial and small holder farmers in 1964. However, over the years it has observed a decline in the proportion of the total fresh produce supplies by farmers in the country due to direct marketing by large supermarkets. The change in suppliers has correspondingly led to a decrease in corporate buyers and an upturn in informal traders who mainly make fresh produce more accessible to lower income households who are willing to buy the produce not taken up by bigger buyers. This, in turn, has consequently resulted in the JFPM

becoming a somewhat nested market although it was initially proposed to be a purely economic market.

6. Notwithstanding the social struggles present, not least through the role of informal traders, the JFPM cannot be said to be a market “constructed with the aim of providing an alternative to the dominant ways of trading, markets and distribution”, as is argued to be a characteristic of nested markets (Van der Ploeg et al., 2012: 140). It is, instead still, underpinned by historical background which has shaped and formed the interactions and activities. This is evident in the ethnic distribution, linguistic influences, and cultural characteristics observed in the present-day Market.
7. Interactions among actors at the JFPM are indicative of spaces where people “come together to freely discuss and identify societal problems” (Schneider et al., 2014: 195). However, the majority of people coming to the Market come there to transact. This differentiation does not lead to the JFPM being identified as a nested market.

The analysis of food markets, specifically fresh produce markets, is remarkably different across different researchers and authors due to the dynamic manner in which these markets can be organised. There is no definitive way these markets can be studied. However, there is a general consensus that the available research for these markets overlooks the implication of social forces on market operations (Cassol and Schneider, 2020: 171).

Notwithstanding the limited literature, there are academics within the social sciences who have brought to the fore the innerworkings between social organisation and economic activity in fresh produce markets. An example of this is the work by Black (2012) who tells the stories of actors operating from the Porta Palazzo market in Turin Italy – the largest open-air market in Western Europe. She profiles actor’s backgrounds through the usage of life histories and explains how the physical environment has an implication on the wider activities of the market. Another telling rendition is penned by Viteri (2010). The focal point of their study is the Buenos Aires Central Wholesale Market (BACWM), specifically the plenitude of interactions between actors participating in the market. The study also delves into the interlinkages between formal and informal social relations among actors through the usage of ethnographic insights. Chikulo (2020) also uses the same method to examine the activities of Mbare Musika market in Harare Zimbabwe. The underlying similarity between the three

authors is the illumination of social interactions as pivotal levers and by-products of economic interactions.

In a similar vein, Wegerif (2017) refers to interactions between economic and social forces as symbiotic and crucial to the functioning of food markets in Dar es Salaam. These interactions, observed in slightly different forms the world over, make the social indistinguishable from the economic. For instance, the symbiotic interactions observed by Wegerif are well captured in the Xitsonga proverb “Ku hlamba u basa swi lava mavoko mambirhi” (To wash your hands clean you need two hands). In essence, both hands are required to effectively wash one’s hands. This is indicative in the interactions between actors carrying out economic activities in ways that depend on all playing their role which results in all also benefiting. This depends on complex relations chiefly built upon trust and reciprocity.

Trust is not an attribute investigated in conventional economic research. It is seen as an exogenous factor which has no bearing on economic activity. However, the likes of Batt (2001) and Range (2015) disagree. Range (2015) developed a conceptual framework of trust in fresh produce markets in South Africa. Meanwhile, Batt (2001) assessed the building of trust between farmers and market agents in Australia. Both stances further support the view that social forces are critical to the functioning of any market. They humanise fresh produce markets and identify them as far more complex institutions than those subscribed to in capitalistic market analysis that places a premium on profits rather than on the people involved within these markets. Although these studies do not investigate the implications of social forces on the buyers of the produce, they allow for a glimpse into the implications of trust among actors in fresh produce markets. Furthermore, the analysis allows for a supposition that the same can be said about the relationship between buyers and market agents. This is aligned to the descriptions of Black (2012), Wegerif (2017), Viteri (2010), and Chikulo that also focuses on the buyers of fresh produce themselves.

Similarly, the role of trust in fresh produce markets is acknowledged by a wide array of academics spanning across different disciplines. Gyau and Spiller (2007) identified the factors influencing international fresh produce trade between Ghana and Europe. The leading factor was the evident mistrust between importers and exporters which effectively led to high

transaction costs on the negative end. Notwithstanding the sombre outcome of the study, the research identified catalysts that could build trust among actors. Trust could be established through non-economic satisfaction, price satisfaction, and goal attainment. Similarly, a far more recent publication by Manning and Monaghan (2019), qualifies Gyau and Spiller (2007) and calls into question the integrity of the fresh produce supply chain and stresses the importance of improving consumer trust in a food system riddled with fraudulent activity.

Nonetheless, although trust is viewed as a common factor for the efficient functioning of markets, it does not unify the operations and views about markets. Markets are observed from the vantage point of various schools of thought. They are multifaceted and yet interconnected at the same time. Moreover, they differ in other ways such as the relation to the character of participating actors and their interrelations, the character of exchange objects, the process of exchange, the nature of competition and so forth (Harrison and Kjellberg, 2014: 2). This goes back to the words of Schneider et al (2014) who refers to the cross-sections between various markets that co-exist in tandem with each other. These markets are a form of kaleidoscope.

FOOD MARKET STUDIES IN SOUTH AFRICA

Over the years, studies have been conducted by academics on the food system in South Africa. For instance, Ngiba et al. (2009) and Madevu et al. (2007) provided analyses of the level of competitiveness within South African fresh produce markets using “Porter’s 5-Forces” competition model. The analyses were conducted in Natalspruit and Tshwane markets respectively. More studies conducted focused on a single element of the value chain such as the investigation of the competitiveness of stone fruit within the food supply chain (Boonzaaier, 2015), the exploration of urban agriculture as a business venture (Ratshitanga, 2017), and market access, through the JFPM, for black commercial farmers (Simelane, 2015). On the other hand, the likes of Henning et al. (2019), Zuma-Netshiukhwi et al. (2016), Strauss et al. (2008), and Paterson et al. (2007) conducted studies into the decision-making model of actors in the South African agricultural sector. This research is generally related to the supply-side of the value chain with a specific focus on the first stage in the value chain, often linked to farmers. This work spanned from understanding decision-making in the granting of credit

to farmers by lending institutions (Henning et al., 2019) to applying the fuzzy logic tool to South African pelagic fisheries markets (Paterson et al., 2007).

Evidently from the literature cited above, it is clear that research about fresh produce markets in South Africa is skewed towards research and interventions on primary production rather than other parts of the food systems, a perspective that has been noted by many authors.

Exceptions to this include the Malan (2015) study mentioned above. The recently published book chapter Tempia et al (2023) gives a useful overview of the JFPM and municipal markets in South Africa more broadly. A substantial part of this book chapter, that I am a co-author of, is based on research for this dissertation. It gives attention to the social networks that are important to the Market, as well as the economic factors, and highlights, as does this dissertation, the important links the Market has with the informal food sector.

In addition to the market theories available to describe the activities in fresh produce markets, it is necessary to link these theories to the fundamental objective of fresh produce markets which is to be an aggregator and distributor of fresh produce, and through this their contribution to food security. Thus the following section addresses issues of food security.

FOOD SECURITY AND RESPONSES TO IT

Despite collective efforts to end hunger and malnutrition by 2030, global gains towards food security began to decelerate from 2014 onwards. The Food and Agriculture Organisation (FAO) estimates that the number of people that experience hunger and malnutrition increased by 60 million between 2014 and 2019. Cumulatively, the number of undernourished people accounted for 678 million people or 8.9% of the world population in 2019, which was before Covid-19 and its impact (FAO et al, 2021). Meanwhile, an estimated 750 million (9.6%) people were considered severely food insecure worldwide during the same period. At this pace, analysts predict that food insecurity will affect 840 million people globally by 2030, not even close to the zero-hunger envisioned in Sustainable Development Goal (SDG) 2.

Projections anticipate that the lions' share of food insecure people (430 million) in the world will reside in Africa in 2030, with current figures indicating that 19.1% (250 million) of African people were undernourished in 2019 – almost twice the world average of 8.9% and the highest of any region. The continent's food insecurity is mainly attributable to hunger in Sub-Saharan Africa (FAO et al, 2021), as the Global Hunger Index (GHI)⁶ indicates that only four countries in the region are moderately (10.0 – 19.6 index points) food insecure with South Africa recording the lowest GHI score (that is the lowest level of food insecurity) of 13.5 in the region. The remaining countries had scores in the serious range (20.0 – 34.9 index points) or at levels of hunger considered “alarming” with readings between 35 and 49.9 index points (GHI, 2023).

The low GHI for South Africa is reflected in other international food security monitors, for instance, the country is placed 1st out of 45 countries in both the Hunger Commitment Index (HANCI)⁷ and Nutrition Commitment Index (NCI) and ranked 4th out of 45 countries for the Hunger Reduction Commitment Index (HRCI) in 2019. These high rankings are credited to policy interventions such as the Strategic Plan for Maternal, Newborn, Child and Women's Health (MNCWH) and Nutrition 2012 – 2016; National Development Plan (NDP), Agriculture Policy Action Plan (APAP), Zero Hunger Programme, Fetsa Tlala (End Hunger) Programme and the Integrated Food Security and Nutrition Programme (IFSNP), which notably includes school feeding schemes and dignity pack programmes. Moreover, the right of access to sufficient food and water is contained in the Section 27 of the nation's constitution of 1996. Essentially, these rankings and programmes all indicate that the South African government is making substantial strides to address food and nutrition insecurity in the country.

Notwithstanding the accolades South Africa has received for curbing hunger and food insecurity, 27.4% of children under the age of 5 were stunted in 2019 (FAO et al, 2020), and during the same period, over a quarter (15.8 million people) of South Africans lived below the

⁶ The Global Hunger Index (GHI) is a tool designed to comprehensively measure and track hunger at global, regional, and national levels. <https://www.globalhungerindex.org/about.html>

⁷ The Hunger and Nutrition Commitment Index (HANCI) ranks governments on their political commitment to tracking hunger and undernutrition.

Food Poverty Line (FPL)⁸ of R538 per person per month (Quantec, 2021). This anomaly between the country’s stellar rankings, and actual food and nutrition figures are attributed to insufficient food access at the household level, chiefly among the urban poor (Battersby, 2016; Crush and Frayne, 2010; Statistics South Africa, 2019) who often reside in urban informal settlements (De Wet et al., 2008; Naicker et al., 2015). It is estimated that 17.3% of people who experience hunger in South Africa live in an informal settlement.

According to the Bureau for Economic Research (Figure 4) South African households that reported hunger always often, always, sometimes or seldom, dropped from 36% to the mid-teens in 2006, peaked at 22% after the 2007/8 global financial and food crisis then moderated to 18% in 2018. (BER, 2021). Following the seasonal trends induced by global shock to the economy, gains to curb hunger following the global financial crisis are likely to be eroded owing to the Covid-19 pandemic.

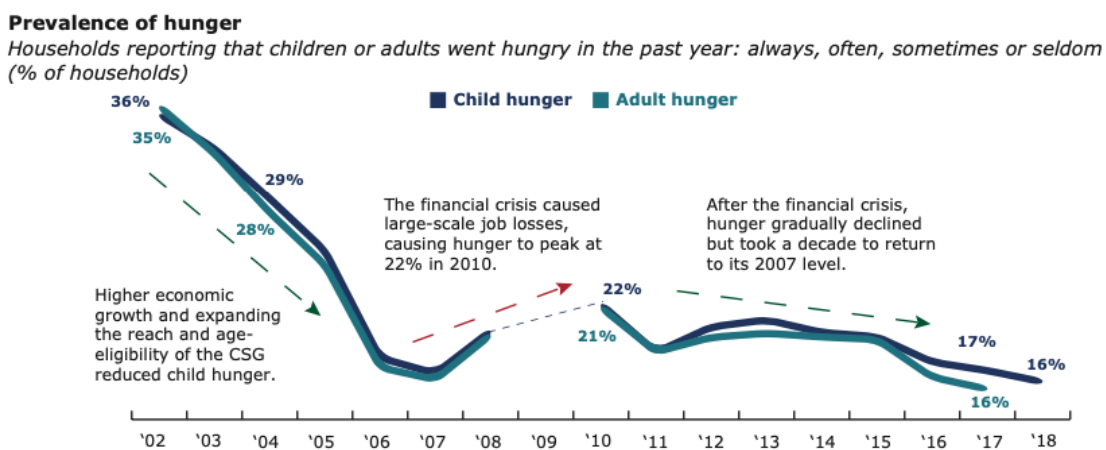


Figure 4: Prevalence of hunger. Source: Bureau for Economic Research, NDP Assessment Report 2021

Given these figures, it is surprising that South Africa is considered food secure at a national level. While South Africa produces enough food to feed the entire country (Bonti-Ankomah, 2001; Van der Berg et al., 2006), the disjuncture between food security and domestic agricultural output is attributable to food inaccessibility at the household level (Chakona and Shackleton, 2019) leading to inefficient allocation of food produced in the country. de Visser

⁸ The Food Poverty Line is the amount of money, calculated by Statistics South Africa, that an individual will need to afford the minimum required daily energy intake. This is also commonly referred to as the “extreme” poverty line.

(2019) credits this disjuncture to the institutions responsible for ensuring food security in the country – provincial and national government departments – which both implement interventions at a macro level rather than a localised level which could, in turn, improve household food accessibility. The argument is that through this lens food is commodified rather than seen as a social good (Thow et al., 2018). Further, this is echoed in the permeation of national remedies to food insecurity in localised programmes such as the Growing Gauteng Together 2030 (Gauteng Provincial Government, 2021) and the Joburg 2040 (CoJ, 2016) as remedies in both programmes are “economically” polarised towards agricultural production, agro-processing, food price stability, food gardens, and social support grants. This has been referred to as the ‘twin-track’ approach that has been critiqued for its narrowness and lack of progress in addressing food insecurity (Crush and Frayne, 2010).

With continued urbanisation, 66% of South Africans already reside in urban areas, particularly in the Gauteng Province which is home to 15.5 million people (Statistics South Africa, 2020), accounting for 28.6% (4.5 million people) living below the FPL in 2019 with the majority of these residing in the City of Johannesburg at 1.2 million people. Considering that food insecurity is expected to be prevalent in rural areas, the high incidence of food poverty in Gauteng is alarming and shows that food insecurity is no longer a rural phenomenon but an urban issue as well.

It is estimated that 70% of people in low-income urban areas are food insecure (Battersby-Lennard et al., 2009). Due to the predominance of rural-biased policy interventions to curb food insecurity urban food insecurity has been described as the “invisible/hidden hunger crisis,” especially considering the increased agricultural production and social transfers propelled by a global development discourse that neglects the occurrence of food insecurity in urban areas (Crush and Riley, 2018). Owing somewhat to this bias, urban food security is said to be “under-researched and theorised” (Battersby, 2012: 141). Nonetheless, over the years, global development discourse has shifted to now more often viewing the food security challenge as one of holistically understanding a sustainable food system that is influenced by social and environmental factors and not solely focusing on agricultural production (FAO, 2018). Moreover, there is continued support for a deeper understanding of food insecurity in

an attempt to limit the foreseeable rise in food-insecure people by 2030 (Dunga, 2020; Haysom and Tawodzera, 2018; Thow et al., 2018).

The Maslow hierarchy of needs indicates that physiological needs are the most fundamental needs for all people, and one of the main physiological needs is food as it offers sustenance to people to achieve higher levels within the hierarchy (Maslow, 1943). In addition, food and meals are seen as means to feel safe, secure, and affirm cultural and social identity (Perianova, 2013). Over the years there have been numerous debates over food, ranging from Genetically Modified Organisms (GMOs), organic versus conventional farming, food safety and regulation, sustainable agriculture, food security, and access and globalisation to name a few (Lang and Barling, 2012; Zebre, 2004; Friedrich et al, 2019; Wood et al, 2023). One of the leading debates, in the wake of the food price crisis of 2007-2008 and 2022-2023, has been predominantly around food security and access, and the impacts of globalisation (Headley et al, 2016; Kalkuhi 2016; Burki, 2022; FAO et al, 2023).

As a result, there are many debates regarding the achievement of food security. One, among others, advocates for a holistic response to food insecurity through the High-Level Panel of Experts (HLPE) report 15 (HLPE, 2020). Nosratabadi (2020) and Kaiser et al (2020) believe the solution lies in the understanding of social capital and social cohesion in conjunction with the six pillars outlined by the HLPE (2020), while Alonso et al (2018) posit that culture has a bearing on the achievement of food security through the same pillars. Meanwhile another view is that the problem is supply related with issues stemming from agricultural production (Nosov, 2022; Vicente, 2022). Further, there are also notions that there is sufficient healthy and nutritious food in the World, however, the issues are distribution and access, which is now under further threat from climate change (Mbow et al, 2020; FAO, 2018).

Some scholars are of the view that the answer lies in the comprehension of local food systems and their contribution towards food security (Bene, 2020; Kirwan, 2013). This relates to the acceptance of food sovereignty, which advocates for the right of people to define their own food and agricultural systems as a key lever in alleviating food insecurity. The benefits of food sovereignty through peasant-driven agriculture are investigated in great detail by the likes of

Van der Ploeg (2017), Bernstein (2017), and Nigh et al (2012). These authors substantiate their findings through case studies of peasant farmers in Mexico, China, Italy, and France.

Notwithstanding the evidence presented by advocates for peasant-driven agriculture and food sovereignty as a solution for food insecurity, there are authors who postulate that the use of Food Regime Theory (FRT) developed by Friedman and McMichael in 1989, as a better alternative to understanding food crisis conundrum. The FRT includes an attempt to ground understanding of the organisation of food production, distribution, and consumption on a world scale in political economy – in other words, to understand how capitalism and the modern state (‘modern sovereignty’) generate and structure this organisation (Tilzey, 2017). According to McMichael (2013) the world is currently under the FRT corporate food regime which is defined as a “cluster of relations” between the largest corporate actors in the global food system, and is characterised by industrialisation, consolidation, concentration, specialisation, and, increasingly, financialisation (Bowness et al, 2021: 247). The efficiency of the corporate food regime has been under fire in the wake of the Covid-19 pandemic. It is argued that multinational food companies, who are the social architects of the corporate food regime, created and unduly profited from systemic risk in the food system induced by supply chain bottlenecks attributed to the Covid-19 pandemic through higher prices that people in poverty could not afford (Bowness et al., 2021). The supply chain bottlenecks were the result of the centralisation of food distribution, inclusive of fresh produce, through the use of direct buying from farmers, which bypasses public wholesale fresh produce markets. Yet, these wholesale markets source fresh produce from local farmers and were often less affected by global supply chain challenges observed at the global scale by multinationals during the pandemic. Centralised distribution is expected to cut costs and increase profits, which is the main goal of multinational companies, through achieving economies of scale in fewer production sites with a couple of large warehouses (Christopher, 2016). The Covid-19 pandemic exposed the potential weaknesses in this model with supply chain disruptions that undermining food supplies and food security (Clapp and Moseley, 2020). In South Africa it was also found that sales to the municipal fresh produce markets, including the JFPM, were important to smaller-scale black farmers and showed resilience, alongside local selling, during the Covid-19 pandemic (Wegerif, 2022).

The use of this supply chain model by multinational food companies and national supermarket chains has led to the marginalisation of small farmers who are unable to enter these value chains and are therefore reliant on the wholesale fresh produce markets and local sales (Wegerif, 2022; Heijden and Vink, 2013). In addition, supermarket chains do not advocate for healthy and nutritious foods but rather focus on the advertising of processed foods (Greenberg, 2015), which is not aligned to the second Sustainable Development Goal (SDG 2) which aims to end hunger, achieve food security and improved nutrition, and promote sustainable agriculture (UNDP, 2015). In South Africa, supermarket chains are expanding into townships and rural areas and thus increasing access to processed food rather than indigenous crops which are high in nutritional value. With these expansions there is a decline in the production of indigenous crops, which are staple foods to the people living in poverty in townships and rural areas in South Africa (Greenberg, 2015).

Although there is a consensus about the rising number of hungry people in the world, there continues to be debate on the reasons for food insecurity which has been ascribed to climate change, civil unrest, and lack of policy coherence (Atukunda et al., 2021; Mugambiwa and Tirivangasi, 2017; Thow et al., 2018). However, in recent years, the causes of food poverty are linked to urbanisation, globalisation, changing consumer patterns, farm attacks which were further exacerbated by economic contractions incited by geo-political tensions before the great Covid-19 lockdown of 2020 (Battersby and Watson, 2018a; FAO et al, 2021; Masipa, 2017).

Among other factors, the purchasing power of households is viewed as a critical contributor to food security (Vilakazi and Hendriks, 2019). Purchasing power can be achieved through decent incomes on the back of favourable economic conditions (Świetlik, 2018). However, this has not been the case in South Africa owing to lacklustre economic activity, increasing unemployment, and inflationary pressures that have capped the purchasing power of consumers. Consequently, food insecurity and food prices have been on an upturn, even following the end of the national drought of 2018 (Statistics South Africa, 2021). This is evidenced in official GDP, Consumer Price Index (CPI) and Quarterly Labour Force Survey (QLFS) figures released between 2018 and 2023.

Prices for fresh produce staples common in South African households such as tomatoes, onions, and cabbage have been on the rise since 2019. For instance, the average price of cabbage in urban areas increased by 8.6% (year-on-year) to R16.25 per head in May 2019, peaked at R18.99 during level 4 of the national lockdown in May 2020, then slowed to R16.84 in May 2021 (Statistics South Africa, 2021). Notwithstanding the drop in cabbage prices in 2021, food and non-alcoholic beverages inflation reached 14% (year-on-year) in February 2023 — double the 7% core inflation rate recorded for the same month (Statistics South Africa, 2023). The surge in food prices remains a grave concern, particularly given that the value of social transfers, which aim to curb food insecurity, is not linked to monthly fluctuations in food prices.

Thow et al. (2018) found that there is no homogenous view of food security at the government level, however, they identified 3 contesting factions (economic, health, and food security) within the food security policy. Findings revealed a constant push-and-pull between practitioners in the economic and health factions, particularly in favour of the former faction which is underpinned by the “trickle-down” effects of economic growth, induced by supply (production) side interventions, to curb food insecurity. Leading, as a result, to the advocacy of healthy and nutritious food supply as a secondary outcome. In addition, Koch (2011) finds food insecurity is spurred by a lack of political will and coordination.

Meanwhile, Masipa (2017) pinpoints another cause of food insecurity that has been overlooked by the government – climate change. Mugambiwa and Tirivangasi (2017) concur with Masipa stating that climate change is a credible threat towards achieving Sustainable Development Goal (SDG) 2 as it adversely affects South African agricultural output. Other researchers find that food insecurity stems from household-level inaccessibility challenges (Aliber and Hart, 2009; Bonti-Ankomah, 2001) to which Battersby (2012: 155) agrees and proposes that food security responses should be supplemented with evidence-based research and official statistics at a household level which includes, “a model for understanding urban food security that begins at the household scale and households actual food geographies” through the mapping of food flows inclusive of transport nodes, spatial structures, and areas of employment.

With the varying reasons among academics for the causes of food insecurity in the country, alternative policy interventions have been proposed by actors. Some of these alternative interventions are macro, advocating for broad-based responses to food insecurity that neglect the influence of the localised context of food systems. For instance, Hendriks (2013) suggested the creation of new food security policies that provide a comprehensive and enforceable legal framework for the implementation of food security and nutrition. In tandem, de Visser (2019) and Van der Merwe (2011) envision that increased food security responsibility in municipalities can curb the number of hungry people. While Masipa (2017) views a timeous official quantification of food insecurity as a crucial building block to national food security efforts, Thow et al. (2018: 1105) find the heart of the problem lies in unpacking the frames, beliefs, and resources held by the 3 coalitions (economic, health, and food security), available in the food security policy sphere.

However, Battersby (2012) partially disagrees and postulates that the solution to South African food insecurity is in the understanding of food flows, moving backwards from households to the sources of food. Moreover, Battersby and Watson (2018b) supplement the relevance of localised insights and advocate for the acceptance of informal food markets as crucial vehicles to food security particularly among poor urban residents. In addition, Pottier (1999) goes further and argues that the understanding of market operations where food is acquired through an anthropological lens comprising of cultural and historical contexts can substantially assist in food security efforts. MacRae (2016) supplements Pottier's findings by advocating for ethnographic studies at various points of the food system. Therefore, the JFPM is a suitable site for implementing just such a study as it is a key nexus point of the South African food system.

The HPLE report 15 titled *Food security and nutrition: building a global narrative towards 2030* states that there are six dimensions of food and nutrition security comprising food availability, accessibility (economic and physical), food utilisation, food stability, agency, and food sustainability (HLPE, 2020). According to the report these dimensions have to be met collectively to effectively address food and nutrition insecurity. The core argument is that although there may be threats to food production from climate change, for now South Africa

is producing enough food, and there is food available, however people are food insecure due to lack of access to food.

Given the triple burden of malnutrition in South Africa — under-nutrition, overweight, and micro-nutrient deficiencies — accessibility of fresh produce is essential for healthy diets and food and nutrition security (FAO et al, 2022). The municipal fresh produce markets, notably the JFPM which is the largest one, play a central role in ensuring food is accessible (Tempia et al 2023). In particular through the street traders that source their supplies from the JFPM and sell at affordable prices in accessible quantities in low-income neighbourhoods (Battersby, 2016, Rudolph et al 2021; Wegerif, 2023). Therefore, an understanding of the innerworkings of the JFPM, which is the distribution nexus of the South African food system, is essential to remedy food and nutrition insecurity in the country.

CONCLUSION

This chapter offers a broad overview of market theories, market studies, food in/security and approaches to addressing food insecurity in the South African context. It does not claim to have covered all available literature and information but gives insight into thematic areas identified during the conceptualisation of this dissertation.

The market theories investigated are a compilation of various schools of thoughts but pay specific attention to the implications of social activities based on neo-classical economics. It does not delve further into other economic theories such as new growth theory, Marxism, market socialism and Keynesian economics.

The sample of market studies included in this dissertation could also be extended with more time, but that would also lengthen the dissertation, perhaps unnecessarily. The policies reviewed may have overlooked ongoing interventions underway by other actors within the food system than government.

Notwithstanding these limitations, the information delineated in this chapter provides necessary context for the study of the JFPM. It gives a bird's eye view of the environment the

JFPM is situated in and the debates this study contributes to. The next chapter elaborates on the methods that were used to gather data for the study.

3. METHODOLOGY

INTRODUCTION

Research methodology is a way to systematically solve the research problem. It comprises of the various steps adopted as well as rationale behind each step (Kothari, 2004). In essence, it includes the various research methods to be used, how they were identified and selected. Delineating the research methodology used for this dissertation increases the validity and legitimacy of the study and allows the reader to judge the appropriateness of the information gathered.. Moreover, it increases the body of knowledge in how methods can be augmented through the experiences and learnings of the researcher.

In this chapter, I present the research methods used to acquire the findings for this dissertation, in particular I highlight specific points of unlearning and relearning during my Masters journey which were an equal working contribution to the methodology of the overall dissertation. As stated earlier, I began by writing a working paper titled "*Decision making in speculative markets: An exploratory study into buyer's decision-making process at the Johannesburg Fresh Produce Market*" before I enrolled for my Masters in 2020. The paper was based on structured interviews among 34 market agents across the formal trading floors (potato, onion, vegetable, and fruit hub) at the JFPM. It is the research methods, data collected, and findings from the 2020 *Decision making in speculative* paper that serve as the baseline for this study and are included in this dissertation.

In addition, further data was collected during the Covid-19 pandemic, resulting in adaptations in some methods used to compile this dissertation, and the transitions and learnings from this process are also detailed in this chapter. Furthermore, I employed a mixed-methods approach using primary and secondary data sources, comprising of quantitative and qualitative data points, that allowed for identifying nuanced insights from diverse viewpoints, and triangulation during data analysis. In addition, this approach helped to facilitate my unlearning from conducting research under "a set of assumptions that narrowed their worldview" (O'leary, 2017: 164-165).

PRIMARY DATA COLLECTION

According to the Oxford dictionary, ethnography is related to the scientific description of and peoples and cultures with their customs, habits, and mutual differences. I utilised ethnographic methods such as interviews, life histories, observations, and netnography to collect primary data using paper-based questionnaires (for structured interviews), journaling (during observations, semi-structured interviews, produce price tracking), audio recordings (for semi-structured interviews), and photographs. The data collected from the structured interviews are captured in a digital database. It is noteworthy that *netnography*, "attempts to understand the unique nature of computer-mediated online communities (such as social networking) from the perspectives of the community members" (O'leary, 2017: 284).

I did not follow a linear process when collecting data but adopted grounded theory as a guide on how and what data to gather from research participants as well as to identify thematic areas particularly when conducting observations and analysing data (Birks and Mills, 2015; Chun Tie et al., 2019). This process included the iterative collection and analysis of data in a cyclic manner at the research site which included repeated interviews with particular research participants in order to refine and validate the theories observed in the field. Moreover, findings from this process guided the evolution of methods used as the data collection and analysis became more rigorous and aligned to specific theories which had not been investigated in the South African National Fresh Produce Markets (NFPMs) context. The change in research methods is elaborated further in the lessons section of this chapter.

Interviews

167 interviews were conducted (Table 1) with a total of 127 research participants. These involved 127 structured interviews and then 40 semi-structured interviews with a sub-set of those already interviewed. Of the 127 structured interviews conducted, 34 were gathered as part of a previous research project titled "*Decision making in speculative markets: An exploratory study into buyer's decision-making process at the Johannesburg Fresh Produce Market*" before the registration for my master's degree. The earlier structured interviews were conducted in 2019 and served as the basis for the further research conducted between 2021 and 2022 (Table 1).

Table 1: Distribution of interviews and data collection tools used.

	2019	2021-22	Total
Structured interviews	34	93	127
Semi-structured interviews		40	40
Total	34	133	167

This means that there is a difference in the timeframes. The earlier structured survey accounted for 34 out of 127 of structured interviews, while the remainder of the structured interviews represented 93 of the structured interview sample. It is noteworthy that the later structured interview questions were augmented with qualitative questions which were identified during the iterative process of analysis of the earlier batch of responses. Therefore, collective analysis was performed on questions that appeared in both versions of the structured interviews.

Furthermore, the earlier batch only focused on market agents and not all actors who interacted with buyers at the Market. The additional 2021/2 questions included qualitative questions which augmented as well as elaborated further on quantitative responses given earlier by market agents. In addition, modifications were made on questions that appeared to be leading the responses of the research participants. The 40 semi-structured interviews were conducted between 2021 and 2022.

Sampling

Sampling is the act, process, or technique of selecting a suitable sample, or representative part of a population for the purpose of determining parameters or characteristics of the whole population (Mujere, 2016).

The JFPM served as the anchor research area, however, some interviews were conducted outside the JFPM with people who had connections to the JFPM. Research respondents were selected from actors operating in the 5 hubs at the market (including the two smaller Mandela and Unity markets) using two different methods: 1) snowballing for structured interviews,

and 2) purposive sampling for semi-structured interviews with key informants. Snowballing is sampling technique that involves the leverages on social networks using chain-referrals (Parker et al, 2019; Etikan et al, 2016). Meanwhile, purposive sampling also referred to as non-probability sampling refers to a sampling method where research participants are selected based on the characteristics that are required in the sample (Vehovar et al, 2016). The use of purposive sampling improved diversity and increased the reliability and competence of the research participants selected. This was especially important in that the Market comprised of relatively close-knit communities (Tongco, 2007; Valerio et al., 2016). Respondents for the more in-depth semi-structured interviews were selected from among those already interviewed using the structured interview. These respondents were selected based on their responsiveness to the structured survey as well as their role in the innerworkings of the JFPM. Moreover, the respondents' knowledge about thematic areas identified during the iterative process of grounded theory was taken into consideration when selecting respondents for this cohort. Whereas the selection of respondents for the structured interviews was not as rigorous given the close ended questions asked. Furthermore, information was collected from farmers, associations and government officials based on the purposive sampling method.

Structured interviews

Various actors participate in the innerworkings of the JFPM, therefore, the structured interviews focused on two broad categories: 1) buyers; and 2) actors that interacted specifically with buyers such as forklift drivers, market agents, salespersons, and gate controllers. Consequently, two structured interview questionnaires were developed – one focused on each category. The first structured interview questionnaire (Annex A) was focused on actors that interacted specifically with buyers and aimed to identify the social and economic forces that shape buyers' decisions at the JFPM from the actors' point of view. The questionnaire followed a broad-to-specific approach that began with questions relating to typology, demographics, ownership and duration at the Market of the respondent. These questions set the tone for the remainder of the questions and enabled stratification of responses by actor type for simplified data collection and analysis. Moreover, this process ensured the appropriate contextualisation of responses which resulted in the enrichment of data collected.

Subsequently, questions one (1) and two (2) tested the neo-classical axiom of markets that postulates that buyers are rational when there is "perfect" information—followed by questions three (3) to six (6) that specifically focus on strategies adopted by buyers. Questions seven (7) and eight (8) investigate the probable economic and social forces that could sway a buyer which requested actors to fill a checkbox grid with buyer categories (as per the JFPM) as the rows and the social and or economic forces informing trading decisions in the columns. A sample of the checkbox grid is depicted in Table 2 below.

The second structured interview questionnaire was administered on buyers and sought to identify the forces that influence buyer’s decisions to transact at the Market. Unlike the actor focused survey, this questionnaire asked more open-ended questions, therefore limited the chances of subjectivity in the answers given. The questionnaire asked the same questions as the actor focused questionnaire but in the first person. For instance, the question “Do buyers have a strategy for purchases?” was asked as “Do you have a plan for making purchases?”

Table 2: Buyer Decision Making Matrix per Buyer Category Example

Social or Economic Forces

Buyer category	Price	Brand Loyalty	Quality of Produce	Market Agent patronage	Trust	Availability Seasonality	Service	Cultivar
Retailer	X		X		X			X
Wholesaler		X			X	X		
Hospitality					X			
Informal Trader			X		X			X
Household				X	X	X		
Export					X			X
General					X			

The responses from the two questionnaires, consequently, qualified each other. The actor focused survey gave an objective view of transactions while the buyers questionnaire tested whether these perspectives were indeed true in the eyes of the buyers under investigation. This, then ensures a double-check on the social and economic forces identified as key contributors to the functioning of the JFPM. Further explanation of the analysis of the questionnaires can be found in the data analysis section of this chapter.

Semi-structured interviews

The semi-structured interviews followed a guide that covered personal information, life histories, motivations, and nuanced insights of the research participant (Annex B). The interviews were conducted over a period of time, and the time of each interview varied as the respondents were different from each other. On average, the initial interview was between 30 and 60 minutes, serving as the basis for follow-up questions based on validated or challenged thematic areas that had been identified. In addition, the initial interview was highly detailed as it attempted to capture the respondent's life history which is integral for better understanding of the respondent. This was paramount as the respondent is meant to be a valid representation of the wider population of the JFPM. The subsequent interviews delved further into the thematic areas identified in the initial interview and homed in on prominent observations discovered in the field. These interviews were more light-hearted and were guided by the respondent's answers and the busyness of the respondent at the time of the interview. There was no set number of interviews per respondents; rather the number of interviews conducted was determined by what was identified during the iterative data collection and analysis process of the research. The majority of interviews were conducted at the Market and were conducted in tandem with the respondent's activities following the easing of lockdown regulation during the Covid-19 pandemic. Where possible interviews were administered in a quiet environment; often outside the core operating areas of the market and the core selling hours of between 5am and 10am. Other interviews were conducted at the respondent's residence when that was more convenient for them. During higher Covid-19 related lockdown level interviews were conducted online through mediums such as *Zoom*, *Google Meet*, *Teams*, *WhatsApp* video and audio calls. Interviews were conducted in English, Xitsonga, sporadic Zulu, and a few Portuguese words. The use of Xitsonga was beneficial as it

is my home language and increased the understanding of the respondents and also facilitated the building of rapport with respondents as it is the most dominant language spoken at the JFPM.

The responses were collected through voice recordings and hand-written notes during or after the session and these data capturing methods were discussed and agreed with each research respondent. Moreover, the data capturing method selected was dependent on the time of the day the semi-structured interview was conducted. During the main fresh produce trading hours, it was difficult to conduct semi-structured interviews due high levels of activity and noise.

The collection of *life histories* was the main reason for conducting semi-structured interviews. Life histories unpacked the past of the respondent by asking questions relating to their experiences over time then mapped out how these experiences have shaped the social, cultural, and economic perspectives of the respondent lifetime (Denscombe, 2014). In addition, life histories were crucial in understanding how the macro activities of the JFPM are linked to the micro activities of actors in the market which allowed for the investigation of sociological themes and historical patterns that could explain findings from other research methods used to compile this dissertation (Goodson, 2012; Ojermark, 2007). In addition, the life histories endeavoured to find out more about the respondent's journey at the Market. This included a specific interest in how the respondent got involved in the JFPM, their development and growth over their time at the Market and what it means in their lives and the wider community it services.

Making a total of 54 visits to the market during the period of my research, I conducted *observations* at the JFPM throughout the research period, often spending most of the day there. I would ensure that I observed the early morning rush, between 4am and 10am, looking out for thematic areas identified in the data analysis of the structured interviews. This time also assisted in the examination of the core activities of the Market. The selection of research participants for the semi-structured interviews was mainly done during this period as I would follow the steps of possible research participants in order to observe the contribution of their

role in the Market and how it could further enrich the data collected from structured interviews. During this period, I walked around looking for key areas of economic activities and nexuses of interactions between actors in a social setting. This allowed for the identification of possible economic and social forces that shape the JFPM. Moreover, this process was an opportunity to study the power dynamics among actors involved in the innerworkings of the market by identifying the winners, losers, and kingmakers and how their activities shaped the JFPM. Essentially, this data collection method gave a better understanding of the internal spatial organisation of the market and the identification of actors who would ordinarily be overlooked in the conventional classification of market actors, especially those engaged in informal activities.

The remainder of the data gathering was used to map out the activities of the Market. I would walk through the Market and try to understand the backend operations of the Market and how they affected the core activities that occurred throughout the morning rush. Furthermore, this time allowed for better examination of the social interactions of actors engaged in activities during the morning rush, while the walkabout assisted in the physical mapping of the Market. These observations assisted in contextualising the behaviour of actors in relation to the economic activities of the JFPM as well as recognise daily, weekly, and seasonal patterns. In addition, I took photographs during observations in order to capture the nature of the market (Desai and Potter, 2006; Sharif et al., 2015), bringing my methods of capturing observations to four forms: photographs, written notes, video, and audio recordings.

Netnography, in this dissertation, was largely applied to observe knowledge sharing among actors at the Market using *WhatsApp* (Fenton and Procter, 2019). During Covid-19, when movements were restricted, it became more convenient to use *WhatsApp* to communicate with the research participants I had met before Covid. This switch from face-to-face to more online communication, however, resulted in higher levels of netnography than initially intended. The rapport I had gained pre-Covid meant participants shared more information, including their personal plights caused by the pandemic. Participants also collected ethnographic data on my behalf through texts, photos, and videos of the market, especially during higher lockdown levels. I would review the data and then talk to them later in the day whilst they were with

their families. We generally communicated using *WhatsApp* video calls, a method that allowed for the observation of participant expressions and mood but also gave me a glimpse into their lives and work, which would have been physically impossible to collect pre and during Covid-19 (Kozinets, 2015: 59). In this way I virtually met many family members: children, spouses, and relatives as the research participant would formally introduce them one by one, telling me how they were connected, and would reference them in later conversations.

An additional aspect of my research methodology was the collection of produce prices from research participants on the days that I was in the field. In particular, I focused on produce that was frequently purchased by buyers which included cabbages, carrots, tomatoes, potatoes, and peppers, enquiring about prices from market agents, buyers, and porters. I recorded these prices in my notepad and analysed the variances at the end of the day and each day's information served as the base for the following day's produce prices data collection. This process would be repeated every time I visited the market. It is worth noting, however that prices were not requested from the same participants, I attempted to ensure that I covered every actor category with every data collection cycle. This data was then utilised to engage with actors and analyse price and seasonal variations from whom I gained insights on price checking and movements in secondary price sources. Relevant findings from the produce prices data analysis are included in this dissertation, particularly in discussions around the impact of these price variances in the context of food insecurity.

SECONDARY SOURCES AND DATA

Secondary data may include data that has been previously gathered and is under consideration to be reused for new questions, for which the data gathered was not originally intended (Vartanian, 2010).

The secondary data used in this dissertation aimed to contextualise the present-day JFPM, supplement primary data collected, and improve data analysis. The sources used were varied due to limited existing literature and reports that included in-depth research on the NFPMs (including the JFPM) at a social and economic level. In addition, no consistent historical secondary quantitative sources on the evolution of the JFPM and NFPMs were found. However, it is noted that while such an analysis was conducted in 1991 by the HSRC, it is not

publicly available. Numerous attempts were made to gain access to this report with no success, therefore, I overcame this data limitation by combining information collected from journal articles, news stories, photographic archives, policy documents, agricultural reports, government investigations, statistical data, and JFPM records.

Journal articles were used to contextualise the present-day Market and review existing theoretical perspectives on food systems, food markets and actors, in similar studies carried out elsewhere in the world, as well as investigate questions that emerged during the data collection process. It is worth noting that the contextualisation of the Market in relation to the topics covered in this dissertation was difficult to achieve. A review of the literature revealed no exhaustive record of social and economic interactions, operations, and functions of the Market from its inception in 1886 until today. I overcame this data limitation by building on the works of Cripps (2012) and Davie (2018) where Cripps' work covered the innerworkings and evolution of the JFPM between 1886 and 1906, while Davie investigated the layered history of the JFPM and significance over the years specifically focusing on the layout of the initial Market, the physical movement of the Market, and notable incidents. Further, I supplemented their research with sources in other fields such as town and regional planning, law, and tourism as well as insights revealed during in-depth interviews.

News stories and photographic archives were additionally critical in compiling the history of the JFPM. These sources further improved my knowledge on the level of participation of Black, Indian and Coloured actors at the Market before democracy and allowed for comparative analysis of interactions at the Market over time. This information aided in explaining the reason behind the current ethnic distribution across various actor roles and how this shaped the economic and social forces observed particularly among people that operate from the JFPM. Furthermore, *policy documents, agriculture reports, and reports of government investigations* gave insight into the institutional arrangements which shaped the modern-day JFPM as well as the economic performance of fresh produce markets over time. In particular, government investigations that explored the transition towards the modern NFPM and the causes of market inefficiencies across various fresh produce markets in South Africa, and complaints

made by market agents and farmers were pivotal in identifying the origin of long-standing contestations I observed during data collection.

Lastly, *statistical data* used consisted of fresh produce volumes, turnover, and prices for the JFPM from different sources as I could not locate a comprehensive database which covered all variables. I gathered daily wholesale fresh produce average prices and volumes from the Department of Agriculture Land Reform and Rural Development (DALRRD) Marketing Information Systems (MIS) and the JFPM website. Further sourced were monthly wholesale fresh produce volumes and turnover figures for the 16 municipal owned markets in South Africa from the South African Union of Fresh Produce Markets (SAUFPM). Meanwhile, monthly retail fresh produce average prices were collected from the Pietermaritzburg Economic Justice and Dignity (PMBEJD) group Household Affordability index, National Agricultural Marketing Council (NAMC), and Statistics South Africa (Stats SA). These data sources were important in understanding the development contribution of the JFPM towards food security and livelihoods.

LESSONS

As stated earlier, there were numerous points of unlearning and relearning during the data collection process which led to methodological adaptations. The most prominent lessons are those related to my educational background in economics and my initial rigid view of what data collection consists of through my economic training. I learned that data collection can be fluid when dealing with people and discovered the danger of using typologies to classify my research participants, learning how to value and recognise the unique attributes and insight that each research participant could add to my research and the wider body of knowledge.

When I initiated the study, I was unaware how fluid the data collection process could become when people were involved. I had the assumption that I could conduct a structured interview on Monday, come back to the field on Tuesday to take photos and reserve Wednesdays for observations and so on. However, this was not the case as I realised that data collection relied on the availability and willingness of the participants. For example, I could conduct a semi-structured interview and cover topics not outlined in my interview guide related to

institutional arrangements and existing contestations which were important to secondary data analysis. Or I could be conducting a structured interview with a research participant and then another research participant would join in midway through the conversation. Additionally, I could also do observations at the same time on the same day that I was in the market for interviews. This discovery was a critical point of unlearning, contrary to my economics background that taught me to view data collection as an orderly process with specific rules. At the same time, my development studies journey informed me to follow the data and respect the process.

I had already conducted 16 structured interviews when I realised the danger in using typology to select research participants. The purposive sampling technique I used to sample the research population based on the location (where the actor operates) and the role of an actor was flawed. This sampling method viewed actors at the Market as disembodied social categories rather than functional actors who deliberated information and strategies during interactions with other actors (Long and Ploeg, 1994: 62). It became apparent that the role of an actor could be fluid based on interaction and circumstance. For example, Jabulani, a registered porter, also facilitated purchases for buyers with no smart cards in the formal hubs for a fee, promoted the transport services of bakkies and trucks to buyers, and is a bulk buyer in the less-formal Mandela and Unity markets for his sister's stall in the Johannesburg CBD. Jabulani's role was fluid, moving between the regulated formal hubs, semi-regulated informal Unity and Mandela markets, and the non-regulated transportation market. This overlap in Jabulani's roles at the market meant he could fill in four questionnaires leading to double-counting in conventional survey practice. On the other hand, these same four questionnaires were capable of providing a multifaceted view of a single actor's roles on a single day at the Market. Therefore, I reconsidered my participant selection approach and only used typologies when capturing data for analysis – to allow for formality. Instead, I used snowball sampling and conducted structured interviews with willing research participants irrespective of their role in the Market – in essence I did not mind much about the distribution of the research participants by typology. After this methodological adaptation, I continued to administer the questionnaires differently by initially inquiring what the actor did at the Market and allowing the conversation to flow whilst ensuring that all questions in the structured interview were

covered. Furthermore, I filled in the questionnaires accordingly and added the relevant notes when an actor played more than one role.

Covid-19 implications

At midnight 26 March 2021, South Africa entered a state of disaster in terms of the Disaster Management Act to curb the Covid-19 outbreak. The regulations mandated the closure of non-essential activities, social distancing, and restricted the movement of citizens. Citizens were ordered to stay at home except for travel to purchase essential goods, execute essential services, or operate businesses that provided essential goods and services. Food was classified as an essential good, and as such, the JFPM continued to operate during the mandatory national lockdown. However, the state of the national disaster affected my primary data collection. The research I was conducting had nothing to do with the pandemic nor did it meet the basic needs of citizens, therefore it was classified as non-essential. Furthermore, I was not an essential worker, nor did I own a business whose activities are related to the operations of the Market therefore I had no reason to go to the Market. The Covid-19 regulations restricted physical ethnography resulting in a change in methodology across the various lockdown levels. These government interventions caused significant delays and led to an increased use of video calling and social media technologies to collect data, behavioural changes that somewhat altered the core research area relative to the data collected pre-Covid and introspection on my role as a researcher.

I followed the lockdown regulations which required that I stay at home due to the research's non-essential function status but did not stop primary data collection and relied heavily on netnography during higher lockdown levels. Although netnography allowed for data collection to continue, it had its disadvantages as I had trouble conducting virtual interviews, especially on *MS Teams* and *Zoom* platforms. Many of the research participants did not understand how to use the platforms nor did they have access to data packages that allowed for the use of the platforms. The research participants I interviewed using virtual platforms were mainly South African and upwardly mobile. As most of these people were relatively new

to the Market, their interviews were not as interesting (or relevant to the study) as those who had long been visiting the market.

After the easing of the lockdown restrictions in 2021, I started to visit the market regularly again, and my first visit was quite sombre. There were fewer people and vehicles, and less movement compared to the hive of activity that I had observed before and that had attracted me to the Market. However, the pandemic unexpectedly enriched my data by giving me insight into the Market before and during Covid-19. During this period, I witnessed the transition of actors and had a front-row seat to their unlearning of "how the market used to be" versus the new-normal they found themselves in. On the other hand, this holistic view posed various questions about my objectivity and ethical role as a researcher. The Covid-19 induced influx of information resulted in "an in-depth methodological and epistemological reflection" (Podjed, 2021: 268) as my role expanded from a researcher to being someone people could confide in about the impacts of the pandemic. While I have no psychology training, I understood that this new role increased my responsibility as a researcher and could make me subjective as I, too, was going through the same crisis. As a result, I mitigated possible subjectivity by validating participants' responses and limited conversations to topics related to the research.

The physical primary data collection process led to additional ethical challenges due to Covid-19 regulations. The Covid-19 regulations required wearing masks in public spaces, but wearing a mask limited the quality of ethnographic data collection methods such as observations and in-depth physical interviews. I had to rely on observing only the participant's eyes and body language to read their mood whereas before the pandemic, I could also see their full facial expressions as well as the physical interaction of actors. In addition, some respondents could not hear me with my mask on and would request that I pull it down or take it off completely. I, in turn, would have to move closer to the participant and break social distancing rules. Others preferred not to wear a mask at all leading to an increased risk of infection. Furthermore, the crowded nature of the Market made social distancing near impossible, which heightened my fears of catching and spreading the virus while in the field. I used my sanitiser as often as possible but felt at times that I offended people and I became

less friendly, kept my distance and shortened my visits to the Market. Although it was difficult to do so, I followed the Covid-19 regulations by always wearing a mask, maintaining social distancing and staying away from the Market when I did not feel well.

Similarly, the Covid-19 regulations made it difficult to find new research participants. The fear of catching the virus made actors less trusting, making it hard to approach a person and get the conversation going. The other reason for the lack of trust came from the change in the people that frequented the Market. There were more South Africans than before the pandemic, and fewer middle-aged people could be found at the market. Middle-aged people preferred to send younger workers or siblings to buy produce on their behalf, thus changing the composition of the research participants I had access to. Jose, aged 23, was one of those "youngsters" and he had travelled from Maputo to buy produce for his sister, who had bought produce from the JFPM for more than two decades before Covid. The rise in South Africans at the market was attributed to Covid-induced massive job losses that led people to find alternative sources of income in the informal sector.

DATA ANALYSIS

A mixed method approach was used to collect the data used in this dissertation. There are several advantages and disadvantage associated with the use of mixed methods particularly in the combined analysis of qualitative and quantitative data (Malina et al, 2011; Cameron, 2011; Shannon Baker, 2016; Halcomb and Hickman, 2015).

The findings of this dissertation validate the advantages of mixed methods. The concurrent incorporation of data, results and insights collected from both research methods. Quantitative findings which could be explained were supplemented by insights from qualitative insights. Whereas qualitative insights gave rise to quantitative data that needed to be collected. Therefore, loopholes not identified in one method were solved through findings of the other method. In essence, allowing for triangulation which further improved the validity of the dissertation particularly for the complex research questions addressed which have never been attempted, as far as the review of available literature, before. In addition, using mixed methods improved the outcomes of the iterative process of grounded theory from purely from a

qualitative lens. Findings become robust and led to the identification of unexpected thematic areas and ideas not initially anticipated for in the beginning of the data collection and analysis process which subsequently improved the knowledge and contribution of this dissertation.

Notwithstanding, there were disadvantages in using mixed methods to analyse the data. The analysis process took longer than anticipated especially after the augmentation of data collection and analysis methods during the iterative phase. The structured interview questionnaire was tweaked a couple of times due to insights gathered through qualitative methods and vice versa elongating the data analysis process. Additionally, the know-how to analyse the data collectively was not known due to the mainly quantitative analysis done by the researcher prior to writing this dissertation. Predominant challenges were related to sampling. The quantitative methods required a linear process while the qualitative method was fluid in nature and could change when the needed. Along with the ethical implication when research participants being involved in the quantitative and qualitative.

Descriptive analysis constituted the summation and investigation of the core attributes of the data through Microsoft Excel and Google Sheets. The main tool used were Pivot tables which gave insights on the distributions and frequencies, averages, medians, and modes. Furthermore, this tool allows for cross tabulation and factors analysis which forms part of the inferential analysis. Inferential analysis is the process of using the results of descriptive statistics to draw in-depth conclusions such as the relationship between variables. The results of the Pivot tables were captured in table and graphical format.

On the other hand, qualitative data analysis is concerned with transforming raw data by searching, evaluating, recognising, coding, mapping, exploring, and describing patterns, trends, themes and categories in the raw data, in order to interpret them and provide their underlying meanings (Ngulube, 2015:1). Qualitative data collected for this dissertation included observations, interview notes, voice notes, WhatsApp conversations, photographs, video clips, voice recordings and newspaper clippings.

The data was then sorted according to the research questions they helped to answer. This included data that offered further explanations to key thematic areas identified during the data collection phase and quantitative analysis results. Furthermore, this process organises the data to only include findings and information relevant to the study. It also assisted later during the in-depth examination and motivating of sections as distinct categories (Akinyode & Khan, 2018: 167).

Subsequently, a thematic network was developed which combined the themes identified from the qualitative and quantitative data analysis. According to Attride-Stirling (2001) thematic networks aim at exploring the understanding of a subject through the usage of global theme which is sorted into organising themes which are filtered into basic themes that attempt to delineate organising themes at the micro level. The global theme was the overarching aim of the dissertation which is a study of the economic and social forces that shape the JFPM. The organising themes were the chapters outlined for the dissertation, studies on markets and theory of markets, the contextualisation of the JFPM, the JFPM today, economic and social forces at the JFPM, and the development contribution of the JFPM toward food security and livelihoods. Each organising theme was then filtered down based on the sub-sections of each chapter.

Finally, the analysis of the different organising themes allowed for the crafting of conclusions and recommendations included in this dissertation for the study.

ETHICS

“The greatest gift you can give another is the purity of your attention”

Richard Moss, MD

Richard Moss’s words are the foundation from which research ethics stems. Ethics ensure the credibility and quality of the findings and additionally protect the research participants interviewed. I adhered to the University of Pretoria Code of Ethics for Research (University of Pretoria) and the South African Development Association (SADSA) ethics guidelines by ensuring the autonomy of all research participants. The research participants' psychological and social risks were minimised by explaining this dissertation's purpose and their individual

rights, such as data ownership, consent, and anonymity, and the use of the data collected. In addition, signed consent using a consent form was acquired from all research participants before any interview or survey (Annex C).

Consent to conduct the study in the first place was obtained from the University of Pretoria, Faculty of Humanities Research Ethics Committee (Annex F). Obtaining this included the submission of the research proposal, copy of proposed research tools such as the semi-structured and structured interview guides and the informed consent form to be used by possible research participants.

The anonymity of respondents is protected through the use of pseudonyms, unless key informants, such as senior managers, explicitly wanted their name and position to be referenced. I also avoided taking pictures that revealed private information about respondents unless the affected respondent gave permission. Furthermore, I categorically stated to research participants and the JFPM management that no financial or non-financial remuneration would be awarded to a participant for participating in the study, in both verbal and written format in the consent form.

In relation to physical risk, I ensured that all interviews were conducted in a safe environment and followed Covid-19 protocols. Additionally, I obtained consent from the CEO of the JFPM to conduct the study in the Market after a series of emails and a physical meeting with the CEO and other executives at the JFPM. At that meeting I, alongside my supervisor, presented the study's intentions, research methodology, and formally requested permission to conduct observations and interviews with patrons to the Market.

4. JOHANNESBURG FRESH PRODUCE MARKET TODAY

This chapter begins by providing an in-depth analysis of the JFPM in its current state, paying attention to the management and governance, the physical layout, and the actors who operate in it. This description does not claim to be an exhaustive explanation of the Market but provides an idea of the innerworkings of the Market, largely based on the interviews with different actors in the Market, as well as perusal of market documents, and the observation of the practices in the Market. Additionally, the chapter continues to present the findings related to the economic and social forces at the JFPM, as revealed by the mixed-methods approach conducted at the Market.

MANAGEMENT AND GOVERNANCE

Currently, there are 22 National Fresh Produce Markets (NFPMs) in South Africa, and they can be operated in one of four operating models. The first model involves NFPMs that are owned and managed by municipalities. Second, there are NFPMs where the market space and infrastructure are owned by the municipality and the operation is corporatised with semi-independent status, but fully owned by the municipality. Third, NFPMs where the infrastructure is owned by the municipality but the market, as a business operation, is privately owned and the market space and infrastructure are rented from the municipality. Fourth, NFPMs that are privately owned and managed (Tempia et al, 2023: 123). The JFPM is one of these 22 NFPMs and it operates under the second, corporatised model listed above. While it is entirely owned by the City of Johannesburg (CoJ) Municipality, it is regulated by the Company Act of South Africa, 2008 (Act No. 71 of 2008), the Local Government: Municipal System, 2000 (Act No. 32 of 200), and the Municipal Finance Management Act, 2003 (Act 56 of 2003). Furthermore, the JFPM is governed by a Service Delivery Agreement (SDA) between it and the CoJ.

The JFPM operates with a semi-independent Board of Directors (BoD) comprising executive and non-executive members that are appointed by an independent oversight committee headed by the CoJ and are paid under the CoJ Group Remuneration Policy. The BoD are also accountable to the CoJ, therefore they present performance reports on an annual, bi-annual, and quarterly basis to the CoJ. However, the Chairperson of the Board has no executive functions, in addition, the roles of the Chairperson of the Board are independent from the Chief Executive Officer (CEO) of the JFPM. This is because CEO is appointed by the BoD and is responsible for reporting the activities of the JFPM to the BoD. Meanwhile, the Company Secretary is accessible to all members of the BoD and provides advisory expertise on legal, compliance, and regulatory matters. Additionally, the JFPM BoD has two committees: Audit and Risk Committee (ARC) and the Remuneration, Social, and Ethics Committee (REMSEC). The ARC works hand in hand with the Chief Audit Officer, who also shares information with the Company Secretary.

The Chief Financial Officer (CFO), Executive: Operations, Executive: Corporate Services, and Executive: ICT all fall under the Office of the CEO, and each executive heads up a team of senior managers responsible for functional activities. For example, the Executive: Operations

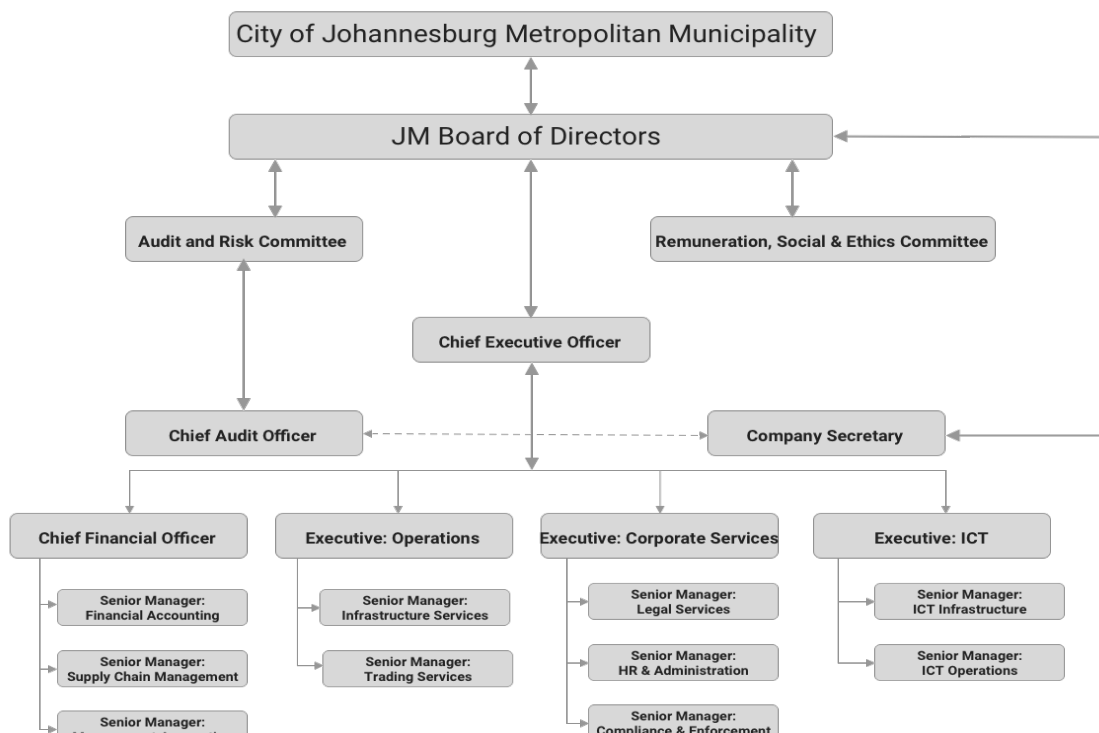


Figure 5: JFPM high-level organisational structure. Source: JFPM Q2 report 2020/21

team comprises two Senior Managers, one for Infrastructure Services and another for Trading Services. An organogram of the JFPM can be seen in Figure 5.

Notwithstanding a semi-independent board, the JFPM has undergone multiple management changes over the past five years due to political changes and instability at the municipal level. With each local government elections, there are changes in the ruling parties, therefore, board members and senior executives are replaced with people aligned to the new ruling party's interests. Additionally, the coalition governments that have run the Municipality since 2016 have been particularly unstable with nine different Executive Mayors since, and none have completed their term in office. Furthermore, the coalition politics has resulted in horse trading between parties that appears to have also affected the JFPM leadership. The resulting instability undermines effective management and limits the achievement of long-term strategic goals at the JFPM.

In 2022 the total fresh produce sales amounted to a cumulative turnover of R 9,282,441,175. In addition to this would have been other income from rentals and payments for uses of value-added services, such as the cold rooms. This is all supported by the JFPM management and staff which amounted to 313 employees in 2022. The financial reports for 2020 and 2021 were not available at the time of writing this dissertation, but we can get an idea of the operating costs of the JFPM as an entity from the 2020 budget of R172.1 million, of which R150.8 million was spent. Given that the 5% market commission on the turnover mentioned above would come to R464 million, it would appear the JFPM is a very profitable operation. The CoJ has allocated, in its Integrated Development Plan (IDP), a capital expenditure (CAPEX) budget to the JFPM of R126,383,000 for the 2022/23 financial year that is forecasted to increase to R190,133,000 in 2024/25. The CAPEX figure will be spent on the refurbishment and construction of ablution facilities, alternative energy systems, operational capital, installation of sprinkler systems, upgrades to the main building, Mandela Market, cold rooms, offices, and food court, and construction of packhouses for emerging farmers, as well as the extension of trading halls and operational buildings. As this research was carried out the new Tshiamo Market, next to the current Mandela market, was under construction and it was opened in 2023 with the aim to be an improved market space for informal traders (Mamabolo, 2023).

The JFPM activities are also regulated by the CoJ through by-laws aligned to the Foodstuff, Cosmetic and Disinfectant Act, 1972 (Act No. 54 of 1972), the Health Act, 1977 (Act No. 63), and the Agricultural Product Standards Act, 1990 (Act 119 of 1990). These by-laws cover areas such as business hours, market agent licenses (issued by the CEO), security provided by market agents for produce in their care, sales permits, market agent signage, market agent employees, consignment control and entry gate formalities, removal and packing of produce, inspections, obligation to buyers, payment of produce sold, porters and traders in pallets, handling equipment, use of delivery and cold storage, general prohibition and powers, prohibited conducted, market dues, monies, and sales processing systems.

However, the conduct of market agents is regulated by the Agricultural Produce Agents Council (APAC) under the Agricultural Produce Agent Act (Agents Act), 1992 (Act 12 of 1992) as amended by the Agricultural Produce Agents Amendment Act, 2003 (Act 47 of 2003). The Agents Act came as a response to the deregulation of the agricultural sector following a report which showed a decline in NFPM activity by the HSRC in 1991. APAC is accountable to the Minister of Agriculture, Land Reform and Rural Development, and comprises an Executive Committee (EXCO) and sub-committees which cover areas such as transformation, audit and remuneration, and the various agent types (livestock, export, and fresh produce). It is noteworthy that market agents do not sit on the board of the JFPM but sit on several of the APAC sub-committees. In addition, there is a registrar's office that is independent from the Council, which administers the day-to-day activities of the Council. It comprises the Registrar, Deputy Registrar, Compliance Officers, temporary staff, and external service providers.

All individual market agents trading at the JFPM operate under a fresh produce (market) agency and are registered with APAC. The market agency registration process includes completing an application form, achieving a minimum 75% pass rate in an online training course and paying R52,441.12. This amount is made up of a fee of R1,761.92 for the issuing of a certificate, a vetting and crediting fee of R679.20 and a once-off contribution to the APAC fidelity fund of R50 000. Thereafter, the market agency pays R12,128.03 per year to APAC. Moreover, the market agency needs to be issued a licence to operate on the trading floor by

the Market master (CEO). There are 19 market agencies operating from the JFPM, with market agents all linked to one of these agencies. The agents also tend to employ some sales people, administrative staff, and general labourers who assist with cleaning and packing the produce.

All produce coming into the JFPM has to be going to and received by a specific agent and all sales in the formal market hubs are facilitated by one of the registered agents. Anybody with an Identity Document (ID) can register to buy in the formal hubs of the JFPM. The process involves the completion of an application form, which is handed in to one cashier at the Customer Care Centres (CCC) that operate from green storage containers (Figure 6) located in each main trading hall. The cashier inputs data from the form into a computer and validates the identity of the applicant and then issues a successful applicant with a buyer's card. The buyer loads money onto their card through the cashiers or via a bank transfer and can then



Figure 6: Buyers queuing to load money on to smart cards. Source: Researchers photos

use their card and the balance available on it to buy from agents on the trading floor. No cash is accepted as payment in any of the main hub, so people can be seen as early as 4am queuing to load money onto smart cards at the CCCs (Figure 6)

The produce sold at the JFPM is sourced from different farms across the country and outside South Africa (e.g. Mozambique), with the bulk of it coming from Limpopo and Mpumalanga provinces. As can be seen in Figure 7 below, a farmer (seller) can approach a market agent (intermediary), or the market agent can approach the farmer. This is done telephonically or in person with visits to the farms by agents or to the market by farmers. Some farmers rarely visit the JFPM, and where necessary, the market agent visits the farm to peruse the produce. This is more common with larger suppliers (which are larger and still normally white owned farms) and often based on culturally and ethnically aligned market agent and farmer relationships as will be elaborated below. It is important to be clear, however, that small-scale and black farmers can and do supply the JFPM and other NFPMs, even if they do not always feel they get a good deal (Wegerif, 2022, Ratshitanga, 2017; Simelane, 2015). This is a point I will return to later in the dissertation.

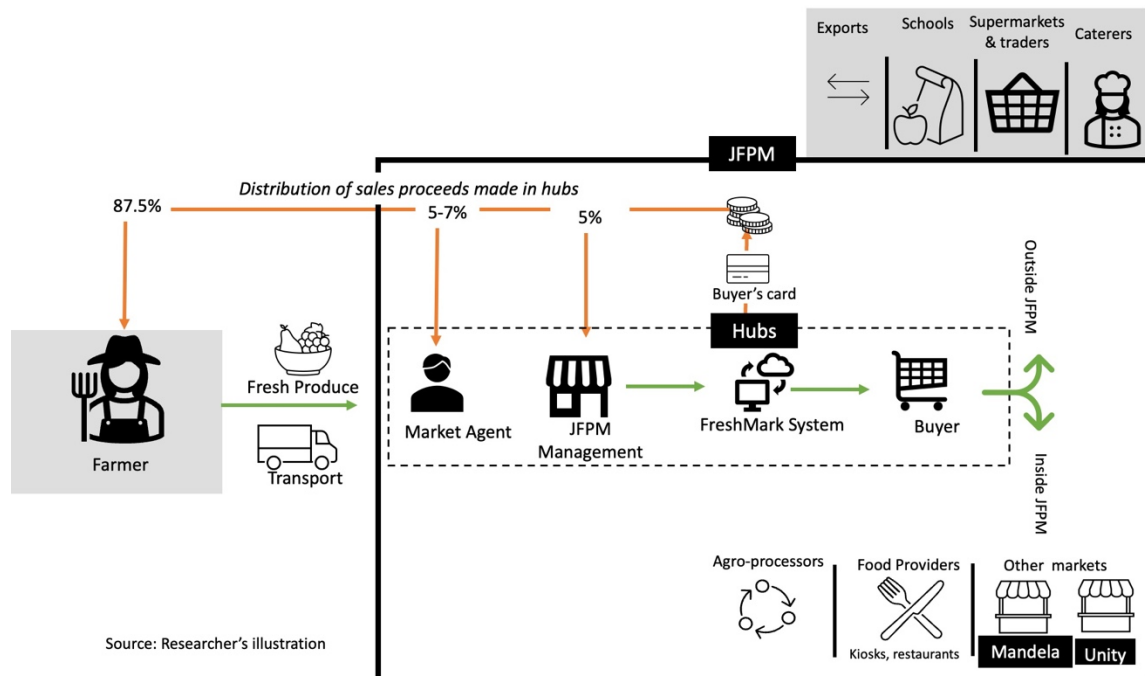


Figure 7: Flow of fresh produce and money at the JFPM

The two parties discuss the services to be provided and average selling prices for the produce, then enter into a contractual agreement. Farmers interviewed indicated that the closing price

of produce, collected from DALRRD and JFPM websites, is what is utilised by them as the basis for price negotiation. The farmer's details are then loaded on the market agent's database, which is shared with JFPM. This database is used to distribute the sales commissions from each transaction with produce allocated to the particular farmer's account and the relevant agent's account when it arrives in the Market, and all sales entered on the system by the agents are also linked to the relevant farmers.

The commission distribution results from the following process: with a delivery note, the produce is transported in a lorry, truck, bakkie, or private vehicle from the farm to the JFPM. The delivery note is inspected at the entrance and marked with a stamp with the date and a tracking number, which allows the driver to enter the Market premises. The driver delivers the product to the relevant market agent who inputs the stock into the computerised FreshMark System (FMS). A buyer, using a card, purchases some of the stock from the market agent, and the market agent deducts the stock on the FMS. The sales proceeds are distributed using the same system between the market agent (who receives between 5 and 7.5%), the JFPM (5%), and the farmer who gets the balance, normally 87.5%. It is noteworthy that the percentage of market agent commission paid is based on the type of produce sold but can be negotiated. The JFPM's commission is combined with other revenue streams (such as rentals and fines) to finance operations and maintenance of the Market. The produce sold is then deducted from the available stock on the system and then physically moved from the main sales floor and either transported away immediately by the buyer or moved by platform traders to either the Unity or Mandela Markets as explained below.

Some of the produce sold stays inside the JFPM to be resold by platform traders at the smaller Unity and Mandela Markets. Platform traders are registered with the JFPM and pay a fixed monthly rental fee for the space they use. However, there are registered platform traders who lease out their stalls to other sellers through verbal agreements. The platform traders tend to break the bulk amounts, such as whole pallets of sacks of potatoes, into smaller units to sell for cash, such as selling potatoes by the sack. A typical pallet of potatoes will weigh around 1,500kg which could be 150 10kg sacks of potatoes or twice that number of 5kg sacks. The numbers of sacks or packets on a pallet and the total weight vary depending on the items. For

example, a pallet of onions will tend to be a bit lighter than potatoes at around 1,300kg and a pallet of carrots closer to 1,100 kg. It is not required for those buying from the platform traders to have the buying cards as these buyers include many who come to buy smaller quantities in cash, including for their own consumption, and many small traders who buy stock for their businesses. These include people without the buyer's cards, but also many traders with the buyers' cards will at times buy stock from the platform traders when it is more convenient, and they can get a good deal on the amounts that they want and can afford at the time. This occurs in part because the agents in the formal hubs do not want to break up the pallets into smaller quantities and will sell larger quantities at lower prices, including to platform traders, to move the produce more quickly.

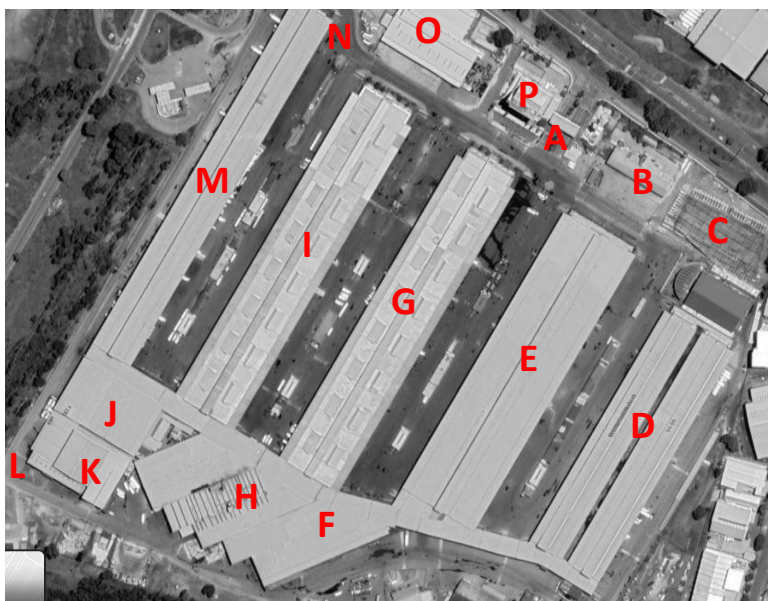
In addition to the formal and documented governance structures that have been set out above, the operation of the JFPM is also shaped by informal institutions in the form of norms, customs, and culture. These informal institutions are evident in all activities in the Market and manifest through structural and relational embeddedness. Relational embeddedness is present in repeated interactions with the same actors, meanwhile, structural embeddedness is related to a community of former, current, and potential actors who maintain and pass on certain norms. For example, the unofficial standard operating procedures (SOPs) of platform traders in the Mandela and Unity markets are not included in the JFPM by-laws but are upheld by a group of elders elected by the traders. This group of elders can be viewed as the executive committee of the respective markets, the stall owners as senior managers, and so forth.

Likewise, the way the three formal hubs are arranged is evidence of informal institutions at the JFPM. Each hub has developed its own character based on cultural norms and standards that are not outlined in the by-laws or APAC code of conduct. For instance, the communication of prices is different in each hub as a result of informal agreements between market agents. The Potato and Onion Hub uses pegs, to put up small signs with prices next to produce, while the Fruit Hub displays average prices on a blackboard at the back of the hall, and the Vegetable Hub displays no prices at all with agents verbally communicating prices directly to potential buyers. These different ways of communicating prices influence operations at the Market, specifically price negotiations.

PHYSICAL SPACES

The following description of the physical spaces of the JFPM is based on the spatial organisation of the Market during the data collection period, 2019 – 2022. This was before the new Tshiamo Market structure, located near the Mandela market, was opened in 2023.

The JFPM is situated 5km from Johannesburg’s CBD in an area known as City Deep. It operates 24 hours per day; however, the sale of produce in the main trading hubs is limited to between 5 am and 11 am on weekdays and 5 am to 10 am on Saturdays with the Mandela market trading up to 4pm on weekdays and 11am on Saturdays. The Unity market operating hours are the same as that of the main trading hubs. The entrance of the JFPM for pedestrians and vehicles can be found on Fortune Street and is identifiable by the droves of people, cars, taxis, trucks, and bakkies that move through these entrances during sales trading hours. Some people come on foot while others take the taxi. Others share a ride on the back of a bakkie while others push wheelbarrows or trolleys. The increased movement of people attracts hawkers and spaza shops across from and near the entrance. The entrance is manned by armed and unarmed security guards that screen visitors to the Market.



- A: Main entrance on Fortune Street
- B: Shopping complex
- C: Mandela Peoples Market
- D: Apple Queens, Rabelo, and Morning Dew
- E: Vegetable Hub
- F: Unity Market
- G: Fruit Hub
- H: Giants Canning
- I: Potato and Onion Hub
- J: Cold storage
- K: Boxer packaging warehouse
- L: Delivery entrance
- M: King Fresh
- N: Exit onto Vickers Road
- O: Cash and carry and liquor store
- P: JFPM Administrative building

Figure 8: Aerial shot of JFPM Source: Google Maps with additional information by researcher

As visitors enter the main entrance (A) they are greeted by a hive of activity (Figure 8). On their left side is a crowd of pedestrians that have either climbed out of a taxi or walked to the Market. The pedestrians move with a sense of urgency through the teeming entrance. Space is a valuable commodity at this time as pedestrians jostle to get into the trading hubs, and some push others to get ahead and be the first to get deals. Once inside the JFPM, the pedestrians spread out to the different hubs and go about their business for the day. Similarly, during peak hours, vehicles crowd the multiple lane entrance and then disperse into different locations around the grounds of the JFPM.

On the right of the main entrance, you see an administrative building (P) that houses the management operations of the Market, including the most senior personnel, such as the CEO and CFO. With five floors, it is the highest building at the JFPM, overlooking the entire Market, and it is also guarded by armed and unarmed guards. On the ground floor are two ATMs and a bank which are heavily guarded because of the large transactions made by users. On the far right is a large building that houses a cash and carry and liquor store (O). Meanwhile, on the far left are a series of stores (B) that sell everything from meat to masking tape.

The Market consists of five long halls (M, I, G, E, D) surrounded by full length platforms that allow for the loading and unloading of items. Pedestrians, porters, and forklift drivers also use these platforms to move between the halls. Food trolley vendors selling tea, coffee, vetkoeks, cool drink, sweets, and sandwiches can also be found on these platforms. Each hall has between 29 and 31 garage style doors on each side that serve as entrances supervised by gate controllers or security guards. Tarred roads separate the halls and serve as parking for visitors, bakkies, and trucks, and host the cafés, restaurants, and food kiosk stalls.

The first hall (D) is based east of the main entrance and houses agro-processing businesses, Rabelo and Morning Dew, that mainly sell packaging material for fresh produce, and the administrative offices for the Mandela Market. Queues of people looking to buy packaging can be found outside this hall in the morning – when the market is busiest. In addition, there is a pallet company on the premises which is one of the biggest suppliers of pallets to the Market. The second hall is connected side-by-side to the first hall. Administrative offices for

market agencies like GROW, Wenpro, and RSA can be found at the back of this hall. The retail fresh produce reseller Apple Queens can be found at the front of the hall. A taxi rank is outside the hall next to the Mandela Peoples Market (Mandela Market).

The Mandela Market (C) operates from 5 am until 4 pm, however, it is the busiest during the formal hubs' operating hours from 5 am to 11 am. The Mandela market can be accessed from Fortune Street and inside the JFPM, and the entrance is always full of bakkies that some informal traders use to transport their produce. The Mandela market is an open-air market with stalls that border the trading area (forming a square) and two rows of stalls in the middle of the market, resulting in a walkway for buyers between the two stall sections. Traders display fresh produce in front of their stalls with prices indicated on folded cupboards boxes and they only sell for cash, however, prices can be negotiated. Unlike in the bigger hubs, buyers can purchase smaller quantities such as a packet of mixed peppers or a *seshebo* mix comprising two tomatoes, an onion, green pepper, and a carrot used to make a standard South Africa relish.

A platform at the back of the hall (D) connects to Vegetable Hub (E), considered the busiest hub due to the turnaround time of produce sold. The trading occurs in spaces allocated to particular agencies and then subdivided to particular agents inside the Vegetable Hub. These spaces are demarcated using steel fences on concrete blocks (Figure 6) and signage for each agency. These sales areas fill the space between a central alleyway - just wide enough for the forklifts and buyers who walk there that runs the length of the hall - and the outer walls of the hall. Additionally, each sales area has an entrance/exit on the outside (through the market agent assigned gate number) leading onto the platforms running the length of the building on each side.

During the busiest hours the alleyway, entrance/exits, and the platforms outside teem with people and forklift trucks creating a complex labyrinth of activity. The forklift drivers account for the loudest sounds in the Vegetable Hub hooting and yelling at people to get out of the way as they speed to pick up or deliver pallets of produce. Each sales area has some form of desk, or a few desks, where the administrative staff employed by the agents record

transactions on the computer system. The administrative staff also print out price and stock information (including information on what has been received from what farmer) on reams of paper that the agents often refer to and memorise. Many agents have raised desks they work from, staying on their feet throughout the morning as they interact with the many customers.

The sales floors also serve as storage areas for produce that is brought in mostly on pallets that the forklifts unload from trucks. These pallets, stacks of crates and piles of sacks fill most of the trading space of successful agents, while some produce is stored in cold rooms owned by the agents and situated on their sales floor. The biggest sales floors are allocated to RSA and Grow, who are both famous for selling tomatoes and RSA, in particular, is famous for only selling tomatoes from ZZ2, which is South Africa's biggest tomato producer.

The Fruit Hub (G) connects to the Vegetable Hub via the platform at the southern end of the halls, where the Unity market (F) is on the map. Average prices of produce are displayed on a black board at the back of the hall and produce samples can be found in an alleyway that divides the fifth and sixth halls. The sales floors are divided in the same way as the Vegetable Hub with the central alleyway and sales areas between that alleyway and the large garage style doors opening onto the platforms outside. However, the largest sales floors are allocated to RSA and Dapper, which specialises in the sale of citrus.

The area on the platform between the Fruit (G) and Vegetable (E) Hubs is called Unity Market (F) and is a mixture of open-air stalls and storage and sales areas, small sales halls similar to shops, that are rented by traders. Produce is also set out in the rudimentary form of open-air stalls on the wide part of the platform joining the Fruit and Vegetable Hubs in front of the halls. Like the Mandela Market, Unity Market traders display their prices written with marker pens on folded cardboard boxes and only accept cash payments. They are busiest between 5 am and 10 am but continue selling until 11am.

Unity Market sits next to canning company Giants (H), behind which are 50 banana ripening rooms that can accommodate 1,590 pallets of bananas and are used by agents, farmers and buyers who pay for the ripening service. The platform in front of Giants connects the Fruit

Hub to the Potato and Onion Hub (I), which is the least busy and the sales floors are allocated as in the Vegetable and Fruit Hubs. Here, the biggest sales floors are controlled by Wenpro and RSA and similar to the Fruit Hub, samples of the produce are displayed along the sides of the alleyway in the middle of the hub (Figure 9). However, market agents in this hub use plastic markers that display the price and the farmer the produce is from on the samples that are displayed (Figure 9).



Figure 9: Produce advertising in the Potato and Onion Hub. Source: Researcher's photos

The cold storage section (J), owned by the JFPM, comprises of 55 cold rooms with the capacity to hold 4,561 pallets of produce. These cold storage rooms are rented out per pallet to the agents to store produce in order to keep it fresh for longer. Similarly, behind the cold storage section is the fresh produce packaging warehouse of the supermarket chain *Boxer* (K) which is managed by King Fresh, one of the biggest agro-processors at the JFPM. The King Fresh

headquarters are based at the far end of the Market (M). In addition, hall M houses a few wholesalers of grains, food, and beverages.

There are numerous places to buy cooked food at the Market catering for the diverse preferences and socio-economic positions of people at the market. These places are not only important as a source of food for those working and trading at the Market, but also as nodes for communication and socialising. Moreover, they add to the character of the Market. There are brick and mortar cafes and restaurants that have specialised commercial equipment to make food and also small kiosks and stalls made from corrugated iron and zinc that have gas burners to cook food. Although there is a stark difference between the building types and cooking methods, they are found close to each other in the parking lot of each hub. However, there is one restaurant that is inside a hub – Tony’s Takeaway: ‘The Market Hot-Spot’ which is based at the far end of the Vegetable Hub and operates between 4 am and 10 am from Monday to Saturday. Some of the eating places operate 24 hours a day, specifically the kiosks and stalls where vendors operate in day and night shifts and serve everything from hearty pap and stew to vetkoeks and tea. The day shift caters for the morning rush of buyers while the night shift accommodates those working at night and the drivers coming in to deliver produce.

The main exit (N) is in the northwest corner of the JFPM, whereas the delivery entrance/exit (L) is found in the southwest corner (behind the ninth and tenth hall) of the Market. The entrance/exit is manned by armed and unarmed security guards and is built like a toll gate with elevated small offices between the lanes that house consignment officers who check delivery notes brought in with goods on trucks. Meanwhile, inspectors check the goods inside the vehicles. Hundreds of vehicles use this entrance/exit every day: the bigger vehicles (such as the semi-trailer trucks) are more common at night and early morning when the main deliveries are made, while smaller vehicles (such as bakkies and cars) are more prevalent in the daytime. Moreover, the vehicles are more common earlier in the week than at the end of the week due to the disposal schedule at the Market. For example, vegetable farmers are more likely to deliver their produce on Mondays because spoiled fresh produce is disposed of on Mondays in the Vegetable Hub. Therefore, the disposal creates space for new and fresh produce to come onto the floor. A consignment office sits next to the delivery entrance/exit,

housing inspectors and consignment officers who work at the entrance/exit (L) as well as their supervisors, operating 24 hours per day.

ACTORS AT THE MARKET

The JFPM is a marketplace for the trade in fresh produce and a place where a wide range of social actors derive their livelihoods, spend time, and meet. It facilitates a myriad of dynamic relationships between actors based on economic and social links. On any day, the Market is full of different people from all walks of life. Some people come there for a specific task, while others come to perform a variety of different functions, and it is the collective activities of these people that make up the JFPM. However, some people are essential to the core functioning of the Market, referred to as market makers (Viteri, 2010). Without these people, the JFPM would cease to exist and not have the same power as a critical node for fresh produce distribution for Gauteng and beyond. Market makers are not limited to prominent actors such as the JFPM staff, market agents/salespersons, in-house wholesalers (platform traders at Unity and Mandela) and buyers but include less visible actors such as porters, forklift drivers, gate controllers, and food vendors.

JFPM STAFF

JFPM staff handle the general maintenance, upkeep, and day-to-day running of the Market. This section focuses on employees that work on the market floor, such as inspectors, cashiers, and security guards, as they are critical to the functioning of the three primary hubs, which are the mainstay of the JFPM. Inspectors are employed by the JFPM to examine and assess the quality and condition of produce in order to maintain standards and ensure food safety. The activities of inspectors are essential to the functioning of the Market because they decide which produce can be sold or disposed of, and they work in all the hubs, dealing with market agents and salespersons. On the other hand, cashiers can be found in the green CCCs in each hub handling the loading of money on smart cards used for transacting in the hubs from 5 am until 10 am from Monday to Saturday.

Security guards patrol and ensure the safety of people and protection of money and assets at the JFPM. Security is a significant concern for the JFPM because of the tens of millions of

Rands that change hands there daily. Security guards are mainly black and live in surrounding areas. Tshiamo⁹, who is stationed in front of the administrative building where he watches over the bank and vehicles, works for the security company contracted by the JFPM. While he is originally from Klerksdorp in the North West province, Tshiamo lives in Regents Park, a suburb just a kilometre to the south of the JFPM, with his wife and three children. At the time that we spoke, he had been a security guard at the Market for three years and rotated between the day and night shifts. Tshiamo found out about the job through a friend who works for the same security company. According to Tshiamo:

“...being a security guard is difficult. It is not an easy job. You have to make a lot of sacrifices. Sometimes people do not take you seriously because they see you every day. You become friends and become scared not to shake the relationship, so you do not reprimand them when you have to. Another thing is the long working hours. You need to be alert, which is also not easy.”

Security guards such as Tshiamo shape activities at the JFPM by making sure people adhere to the rules of the Market but they are also essential market makers through their informal interactions with people. For instance, Tshiamo speaks of the difficulty of conducting his duties with friends and close acquaintances. In our interview, Tshiamo referred to an elderly ‘Mama’ who visits the JFPM daily: she parks her car near Tshiamo's station, uses the same parking bay each time and usually gives Tshiamo 'something'¹⁰. Over the years, a friendly relationship has developed between them as they consistently discuss the performance of the Market and each other's families. However, one day the elderly Mama blocked the entrance to the administrative building with her produce trolley while she withdrew money from the ATM. This was a dilemma for Tshiamo because on the one hand, he needed to conduct his duties as a security guard which is his source of income, on the other, he had empathy with the woman's situation and wanted to preserve his relationship with his long-term acquaintance, who also supplements his income. Tshiamo opted to move the elderly Mama's

⁹ All names of respondents used in this dissertation are pseudonyms to protect the identity of the respondents. All the respondents mentioned in the dissertation are listed in Annex E along with their pseudonym, role in the market, age (where known), ethnicity (where known), and race.

¹⁰ ‘Something’ refers to monetary gifts.

trolley away from the entrance instead of confiscating the produce, as he should have if strictly following the Market rules, because of their long-standing relationship. Tshiamo explains, “the Mama would have lost her stock for the day. Imagine, she is elderly and takes care of her grandchildren.”

This demonstration of favour is evidence of how social activities can have a bearing on the economic activities of the Market. Needless to say, Tshiamo does not behave this way with all the elderly Mamas at the Market therefore his differing interactions, and those of other security guards, create an uneven distribution of economic and social forces at the JFPM.

MARKET AGENTS AND SALESPERSONS

Market agents and salespersons are intermediaries who sell fresh produce on behalf of the farmers (sellers). They are integral to the functioning of the JFPM because their collective interactions (transactions) with buyers and farmers determine the prices of fresh produce and the flow of fresh produce through the Market. Market agents operate under a market agency, registered with APAC, from designated sales floors in the hubs (Vegetable, Fruit, and Potato and Onion), while salespersons are not registered agents, but are employed by the agents to assist them in selling fresh produce on behalf of farmers for a commission.

Most market agencies are owned by families of English, Portuguese and Afrikaans descent that have been operational in the Market for decades. Licensed market agents are mainly white males, of whom some are second and third-generation market agents. For example, Rodrigo immigrated from Portugal as a child with his father to South Africa in 1977 to help his uncle operate a market agency based at the JFPM. Over time, Rodrigo's father started his own fresh produce selling business and worked under Rodrigo's uncle's market agency licence. After school, Rodrigo and his brother would help run the family business and eventually opened their own fresh produce selling business under the same market agency licence after leaving high school. In 2021, Rodrigo continued to operate as a market agent at the JFPM under the same market agency licence with his two sons, who both own fresh produce selling businesses. The trio work from the same sales floor and share operational equipment such as forklifts, cold

storage, and jack lifts as well as sharing vital information that can help in determining their selling decisions.

This type of arrangement within a market agency is typical at the JFPM. Market agents that operate under the same market agency often either share the same background and come from the same areas or are somewhat related by ethnicity. These types of relations extend to the farmers they represent at the Market as Portuguese-owned market agencies are more likely to sell produce from farmers of Portuguese descent, Afrikaner-owned market agencies and Afrikaner market agents are more likely to sell produce farmed by fellow Afrikaners and so forth. These arrangements have led to a level of specialisation in ethnically based produce clusters at the JFPM with Portuguese market agencies mainly specialising in vegetables and some fruit, English market agencies dominating fruit sales, and Afrikaner market agencies focusing on potatoes, onions, and tomatoes.

The majority of black people selling produce at the JFPM are salespersons and are not registered with APAC, however, a handful of black licensed market agencies and agents can be found at the JFPM, like Dineo – a black female market agent. She came to the Market as an intern working for the JFPM in 2010 and was promoted within a year and worked for the JFPM for six years before becoming a market agent in 2016. Dineo currently employs five people and sources produce from farmers in the Western Cape, Gauteng, and Limpopo provinces. She is also among the few female market agents operating at the JFPM.

Notwithstanding the distinction between salespersons and market agents from a legal point of view, they generally serve the same functions. In order to understand these functions, I accompanied Mufaro (a salesperson) around the JFPM for a few days. Mufaro moved to South Africa from Zimbabwe in the mid-2000s to join a soccer club and played for the team for a couple of years before sustaining an injury which cut his career short. He looked for employment opportunities within the sports industry and found a job as a part-time coach, however, he could not make ends meet financially. Mufaro needed a second job to supplement his income, so he asked the players he coached and one of these players came through; he was a salesperson for one of the market agencies based at the JFPM. He got Mufaro a job as a gate

controller in the vegetable hub and over the years, Mufaro rose through the ranks and became a salesperson in 2022.

Mufaro begins work at 3 am from Monday to Saturday, one of the first employees to arrive for the day shift for a Portuguese-owned market agency. The market agency he works for is small relative to other market agencies at the JFPM; therefore, he serves in multiple roles but is formally referred to as a salesperson. A typical day for Mufaro starts with checking the available stock (fresh produce) with the night shift manager. He inspects the stock delivered overnight and sees if there are any discrepancies between the logbook and the actual stock on the floor. After that, he supervises the movement of fresh produce pallets from cold storage to the sales floor, where buyers can easily see them. Some of the produce is removed from its packaging so buyers can have a closer look, which is done with the assistance of three packers and two forklift drivers. The arrangement of produce usually takes between 60 and 90 minutes to complete. When Mufaro and the team finish arranging the pallets, they join a team meeting, including the market agency's owners. The meeting is mainly meant to inform all the employees of the lowest price for produce. Mufaro explains:

“The market agency owners determine the lowest price. It is a combination of different factors and is not constant. It changes as the day progresses. The first factor is the price set by the farmer, followed by the time of the year, the price of competitors, the day of the week, the price of substitutes and the weather on the day. The price is also influenced by the results of the market agency owners' early morning meetings, where these factors are discussed. The meeting is not for everybody. It is generally happening outside the restaurant inside the Vegetable Hub. But the biggest influence is supply and demand. When there is too much stock on the floor, the price goes down; when there is too little stock, prices are high. This supply and demand thing is also true for customers. When it rains, there is little foot traffic because most of the people who come here are [informal] traders.”

Once the meeting is done, Mufaro gets breakfast: a sandwich and a cappuccino from one of the restaurants based alongside the Vegetable Hub, which he gobbles while responding to *WhatsApp* audio calls, texts, and voice notes from customers, and perusing prices on his two

smartphones before the Market officially opens at 5 am. Mufaro's first price formation process occurs during this period where he is typically engaged in close to ten negotiations at a time. Prices begin high, then decrease as negotiations intensify with the starting price for negotiations being generally derived from yesterday's closing price and stock levels. If the stock level was low, and no deliveries were accepted during the night, the starting prices would likely be high.

However, if the stock level is high, then prices will be low. While this is not always true, it is generally the case. Notwithstanding, prices are not the same for all buyers: a combination of economic and social factors influence the price formation process at the level where the salesperson and buyer interact. Mufaro elaborates further:

“...not all customers are equal. There are those you know and those you do not know. This is what determines the price on any given day. If the Market is high (favourable conditions), then you give good prices to everyone. Still, if the Market is low (unfavourable conditions), you give out fewer discounts which are just for my loyal customers—people you know. You see, there are big buyers, small buyers, time wasters, and potential customers. But most of all, there are those you trust – people who become your friends because you deal with them on a daily basis. These people get the best negotiation prices because you know them well and have gained some understanding. There are no long back and forward negotiations. They ask for a price, and you give it to them. You do not beat about the bush. They either take it or leave it. I will not have any hard feelings.”

Mufaro's first sale for the day happens just minutes after the Market opens at 5 am. He sells 15 pallets of carrots (approximately 19.5 tons of carrots) to a Mozambican buyer who has become one of his regulars. Mufaro instructs a forklift driver to remove the carrots from the sales floor to the platform outside. The sales floor is packed full of buyers analysing the produce or passing through on their way to other sales floors as Mufaro makes another sale. This time, it is to an informal trader based in the Johannesburg CBD who buys one sugar pocket of cabbages; typically, this is about 26kg. Simultaneously, Mufaro continues to strike deals over the phone via *WhatsApp* and with other buyers physically on the sales floor. He is always on

his feet moving swiftly around the whole sales floor dressed in a red work suit and safety boots showing customers the produce on the spot, taking one customer to the pallets of carrots, and then discussing the cabbage prices while looking at the piled sacks of cabbages. The deals are often struck while standing with the customer next to the relevant pallets, crates, or sacks. The information on the agreed sale and price is then given - sometimes on handwritten notes on scraps of paper or shouted across the sales floor - to one of the administrative staff employed by the agents who enters it on the computer at their desk in the middle of the sales floor.

In addition, and often while making a sale, Mufaro has social conversations with the people who visit the sales floor as they talk about soccer, family life and music. The selling persists at a high tempo for the first two hours of the day and then begins to dwindle until it halts at 11 am on this Tuesday. By this time, the crowds of people have disappeared, and Mufaro can take a quick 15-minute break before the next task begins. He uses this time to get an energy drink and something to eat from the nearby restaurant, where he generally bumps into and chats with other salespersons and market agents. Mufaro has informal conversations about the performance of the Market for the day and shares exciting stories about their activities with the other salespersons and market agents.

When Mufaro is done with his break, he begins his second job as the daytime manager, where he oversees the work of 10 people. The first order of business is to supervise cleaning of the sales floor and the cold room which is the most strenuous as it requires pallets to be stacked on top of each other using a forklift and some manual labour to get them straight and properly arranged. It also allows Mufaro to check the quantity and quality of produce on the sales floor by cross-referencing the stock list generated by the FMS¹¹ and printed out by the administrative staff with the physical stock on the sales floor. It is during this process that Mufaro can identify any theft or loss of produce. The second order of business is the acceptance of produce deliveries during the day, which does not happen in isolation from the cleaning process. Trucks and bakkies come and offload produce from far and wide throughout the day

¹¹ FreshMark System is the computerised system used to track transactions at the JFPM.

while the team cleans and arranges the sales floor. At last, Mufaro ends his day at 3 pm and goes home to his wife and two children in Rosettenville, 6 kms from the JFPM.

PLATFORM TRADERS

Platform traders are people who sell produce for cash, strictly buy produce only from the main hubs, and are based at Unity and Mandela markets. Platform traders account for a considerable share of wholesale sales in the main hubs, therefore, are essential to the core functioning of the JFPM. While there are a few South African platform traders, the majority come from Sub-Saharan Africa, mainly the SADC region and West Africa. Traders operate from stalls or halls they own or rent out from owners and in some instances, stalls are run on behalf of a family member. A stall or hall can be shared by more than one trader, such as in the case of Nobuhle – a 28-year-old from Ladysmith in KwaZulu Natal who sells bags of oranges and boxes of lemons with a partner from a stall owned by her deceased aunt. In addition, she rents out a section of the stall to other traders who sometimes sell the same produce as her.

The sale of similar produce by two traders in the same stall is common at Unity and Mandela markets and sometimes, these traders share kinship relations or come from the same area. This is the case with Chinedu, who operates at Unity Market with his *brothers*; he calls them his brothers because they all come from the same country (Nigeria) and are of the same ethnicity (Igbo). Chinedu relocated to South Africa in 2018 in search of better prospects and when he arrived, Chinedu stayed with a person he knew from his church while he looked for work. He found a job working for another church member selling second-hand clothing, however, he could not make ends meet. Through the church network, Chinedu got two additional jobs: the first was delivering cigarettes for a company based in Fordsburg, whereas the second job was as a packer for a prominent platform trader based at Mandela Market.

Today, Chinedu is second in charge to the 'big boss' whose business has expanded to Unity Market and specialises in the sale of peppers. Chinedu lives in a commune in Kensington and travels to the JFPM using a motorcycle he also uses to deliver cigarettes for the owner of the cigarette distribution business. However, when it rains, Chinedu gets picked up by his boss,

who drives a 2002 Toyota double cab bakkie with a canopy. This is generally the mode of transport for Chinedu's co-workers with the car sometimes carrying up to 12 passengers who work for the big boss.

On a good morning, Chinedu reaches the Market at 3:30 am as his day starts with unpacking, along with his co-workers, produce from a small hall where it is stored at Unity Market. Occasionally, some of the produce is stored in cold storage facilities in the hubs and needs to be collected. This is done when the produce was bought the day before and would not withstand the hot weather conditions, or there is insufficient space to store the produce in the small hall at Unity Market. The use of cold storage facilities is more common in hotter months than the colder months. The produce is split between two sales points: the front of the small hall and the open-air stalls in front of Unity Market, and each sales point receives a specified amount of money used to give change for transactions. The money is withdrawn from the ATM based at the administrative building and kept in two fanny packs which allows for easy access. Chinedu is in charge of one of these fanny packs and bases himself in the open-air stalls, while the big boss takes the other and remains behind in the small hall. When Chinedu receives the fanny pack, he counts it out in front of witnesses to ascertain the amount before moving to his designated place where he oversees five other people who are selling. Upon arrival, he double-checks the quantity and quality of produce then, arranges it in a U-shape which he stands in the middle of to safeguard the money. According to Chinedu "The Market is very busy, and sometimes you can lose a lot of money. So, it is good to protect the money."

Buyers begin to surround the stall, asking for prices as early as 4 am but generally do not buy any produce as they await the Market's official opening at 5 am in order to properly compare prices. Unlike the main hubs, prices are set by the sellers at Unity Market, as Chinedu explains: "...we divide a specific produce's total value by the number of available boxes. Then we put a markup of R5. It is always plus R5 for everything because there is too much competition. You can see for yourself – my neighbour also sells peppers." Although the sales margins are small, Chinedu can handle upwards of R100,000 on a good day. He is the only person allowed to collect money from sales, whilst his co-workers are responsible for garnering sales and moving the produce around. Sales begin to pick up when trading opens in the main hubs at 5 am, and

since there are no negotiations, sales happen at a rapid pace with money exchanged at a phenomenal rate. Notwithstanding the pace, Chinedu can tell the difference between real and counterfeit money. Additionally, Chinedu is familiar with the buyers he interacts with, although he does not know all their names. They share jokes and stories about the Market and even have nicknames for each other.

Once Chinedu has collected the proceeds for the day, he counts the money in a makeshift room made from the boxes stacked high into a smaller U-shape enabling Chinedu to count the money safely. The money is sorted intricately in batches of R10, R20, R50, R100, and R200 notes while the R5 coins fill an empty peppers box, and the R1 and R2 coins fill a plastic bag. Chinedu gathers all the money and takes it to the small hall where the day began and counts out the money once again. During the recount, Chinedu's co-workers bring in the leftover produce and merge it with the leftover produce from the small hall and then count it to verify the proceeds for the day. If the figures balance, the money is deposited in the bank at the administrative building and the produce is stored in the small hall for the night.

Chinedu is also responsible for the buying of new produce (stock). He has a close relationship with each of the fairly small number of agents selling peppers, which enables him to place an order on trust and only collect it later in the day when trading has closed. This produce selection process only occurs after Chinedu has completed his tasks at Unity Market - generally, after trading has closed for the day. Chinedu typically has brands that he trusts and does not sway from them unless the Market is low and then he shops around like a regular buyer at the Market. When times are tough, he even sends one of his co-workers to help shop around for prices. After Chinedu has selected the produce to be bought, he goes home at about noon.

BUYERS

In this dissertation the term buyers refer to people who exchange money for produce. The JFPM caters for all kinds of buyers: wholesalers, retailers, hospitality buyers, exporters, informal traders, and household buyers who are individuals buying for their own household consumption. The nature of these different buyers and their operations are elaborated below.

Wholesalers

Wholesalers are buyers who purchase produce in bulk in order to sell the produce to retailers. There are numerous types of wholesalers at the JFPM with some wholesalers operating directly from the JFPM, while others operate from elsewhere. Cross-border traders and informal domestic wholesalers are among the biggest buyers at the JFPM. These buyers can spend hundreds of thousands of Rands per day on produce and are known to influence the decisions made by other buyers. The most prevalent cross-border traders are the 'Maputo Mamas' from Mozambique who buy fresh produce in bulk for their domestic fresh produce markets, such as the Zimpeta market in Maputo. Some of these women live in South Africa full-time, while others travel from Mozambique to the JFPM at least twice a week. They are identifiable by the traditional fabric they wear around their waist called a *kapulana* and typically move in groups of three to four women.

Meanwhile, informal domestic wholesalers are fresh produce bulk buyers that service mainly informal retailers. They visit the Market daily and often spend the whole day concluding deals in the morning and sorting out logistics, such as the transportation of their stock, in the afternoon. Ntsetselelo is such, an informal buyer for a fresh produce wholesaler based in one of the significant townships in Gauteng. She stocks tomatoes, onions, carrots, peppers, and cabbages at the beginning of the week, then purchases more luxury produce such as butternut squash and beetroot, later in the week to accommodate the Sunday lunch demand that starts on Friday. Ntsetselelo spends a minimum of R50,000 per day across the three formal hubs.

Retailers

Formal sector retailers buy produce in order to sell directly to the public, ranging from commercial supermarket chains to small family-owned greengrocers common in suburban areas. Some formal retailers, such as *Boxer* supermarket, buy their produce and process it on the JFPM premises, packing the produce into smaller packets for distribution to *Boxer* supermarkets. Other retailers have agro-processing and distribution warehouses near the JFPM. Despite direct marketing between farmers and large commercial supermarkets, there are other supermarkets that continue to source their produce from the JFPM, *Spar* being one of them. Several *Spar* branded trucks can be seen daily at the JFPM coming from across

Gauteng to pick produce that has been bought during fresh produce trading hours, the price negotiations having generally been predetermined and the produce paid for before collection.

Large supermarket chains that have central distribution centres also at times source their produce from the JFPM when there is a shortage in their supply chains. In this instance, the supermarket chain sends buyers, often dressed in very nondescript ways, to peruse the prevailing prices of produce required. These buyers relay this information to the formally dressed buyers, wearing clothing the supermarket's branding, who visit the Market later in the day. These buyers generally include a team of experts that are meant to intimidate the market agents with prices derived from quantitative demand functions and the prices obtained from the nondescript dressed buyers.

Lastly, smaller independent greengrocers are almost all white owned and often of Portuguese descent and tend to buy from the Portuguese agents. These formal retailers generally operate in suburbs and have been operational for decades.

Hospitality buyers

Hospitality buyers buy on behalf of catering companies, restaurants, and hotels, and for institutions and event organisers. These buyers include suppliers to the government's National School Nutrition Programme (NSNP) which provides meals to over 9 million children every school day. The food is prepared by volunteers at each school and the ingredients are largely supplied by companies that win government tenders to do this (Wegerif et al, 2022) and it is these companies that can be found at the JFPM procuring some of the food needed for the NSNP. Additionally, savings clubs (including stokvels), women's groups, and family and burial societies can also be found buying in bulk for their members, and for events like weddings and funerals.

Exporters

Exporters buy produce in order to sell to buyers in other countries and it is noteworthy that this buyer cohort comprises both informal and formal exporters. Formal exporters are companies that send produce to another country for sale, bought from the main hubs and

sometimes processed on the JFPM premises. Subsequently, the produce either travels by sea or air in appropriate storage containers that can withstand the journey. It is important to highlight that these companies are registered with the South African Revenue Service (SARS) and are issued with export licences. The produce is bought on their behalf by market agencies and wholesalers that operate from the JFPM.

Informal exporters, on the other hand, are not taxed nor monitored by the government, and Benedict from Zambia is an example. When I first met Benedict he was leaning against a Mercedes Benz Actros truck, that carries a minimum of 56 tons of produce per trip, outside the Potato and Onion Hub. Benedict was talking on a cheap cell phone wearing a worn-out pair of formal trousers, a plain grey t-shirt, and a pair of white flip-flops, an appearance that hid him as a well-known businessman in Zambia who specialises in the importation of fresh produce from South Africa. He supplies the Soweto public market, about 1,700 kms away, in Lusaka and commercial supermarkets in other parts of Zambia. When I interviewed Benedict, he had arrived in South Africa three days before with four trucks and spent close to R1 million on citrus, shallot onions, and potatoes. He planned to leave later that day after loading the last of his stock – a special order of Clementines from Limpopo which he was waiting for as they had not been available on the floor when he concluded his deal with Arno, a market agent, the previous day.

Informal traders

Informal traders are integral to the functioning of the JFPM who, according to the market agents interviewed, attribute 50-60% of their sales to informal traders. The Managing Director of FMS estimates that informal traders account for 60-70% of all sales across all the municipal fresh produce markets. Consequently, if we take the lower bound of 50%, informal traders accounted for R4 641 220 588 of the R9 282 441 175 sales recorded by the JFPM for 2022. The informal traders that buy at the Market range from the energetic young man pushing a trolley full of fresh bananas shouting, "*amaBanana! R1!*" through the bustling streets of Johannesburg CBD to cross-border traders from as far north as Zambia. Most people trading in fresh produce within Gauteng source their produce from municipal markets such as the JFPM and due to limited access to storage facilities, most street traders visit the JFPM daily to buy their stock

for the day arriving as early as 4am on the Market floor, having travelled from as far as Tembisa, about 40 km from the JFPM. Numerous traders use various types of transport (some even using more than one mode of transportation) to get to the Market, such as Cedric, a street trader who rents a room in Soweto but sells produce in Johannesburg CBD. Cedric wakes up at 2 am, takes two taxis to the CBD, gets off on the M2 highway, and picks up his trolley from under the bridge, pushing it the last 5 km to the Market.

He arrives at JFPM at 4 am and his first stop is the Mandela Market, where he notes the produce prices then moves to the Unity Market and also checks the prices there. He compares the prices from the two markets and decides what he will buy and sell for the day. He decides on bananas the day that I am with him. The price is favourable, and he knows he can sell them quickly during the early morning rush at Noord Street taxi rank in the Johannesburg CBD. However, before he makes his purchase for the day, he visits the fruit hub to see if he can find a better deal. Several market agencies sell bananas, but Cedric only visits a few because of time. Cedric has to be out of the JFPM by 5:30 am the latest in order to catch the early morning business of people on their way to work. On this day, Cedric cannot find a better deal inside the hub and opts to buy from a platform trader based at Mandela Market.

Cedric is part of numerous informal traders, men and women of all ages, who source their stock from the JFPM. Akin to Cedric many of them arrive at the Market via public transport and buy a few crates of tomatoes, a few sacks of potatoes, onions, and a sugar pocket of cabbages. The produce bought by informal traders is transported via hired bakkies which they share with other traders to get to where they sell, normally from small stalls on the sides of the roads in residential areas and near transport intersections. Some have their own cars, but they often still share this transportation with fellow traders and sometimes relatives. One such trader, Tiyiselani owns a spaza shop in Orlando, not far from the famous Vilakazi Street in Soweto. She runs her spaza shop from the building she shares with a Pakistani run shop next door. The front of Tiyiselani's shop is beautifully painted in bright blue with "eThekwini General Dealer" neatly painted at the top of the entrance.

The shop is clean, and everything is meticulously packed and has its place; from the drinks on the left to stacked up empty 1.25L coke bottle crates to the side, name brand soups and spices at the back and fresh orange Arum lilies on the counter where she trades with her customer through burglar bars. In the front, she has her packaged carrots, beetroot, potatoes, onions, and tomatoes neatly laid on a black iron shelf so her customers can pick which products they want. Next to the shelf, there is a plastic display with pre-cut cabbage and pumpkin, and loose butternut. When I arrived, she was busy packaging produce for the shop. She stops immediately to greet me and then attends to a customer before offering me a camping chair to sit on near the entrance of her shop. Dressed in a pair of shorts and a t-shirt, Tiyiselani does not look 50 at all as she takes a seat in a camping chair right across from me.

Tiyiselani began her trading journey selling tea, coffee, powdered milk, and sugar in 2008 and over time the business grew into “eThekwini General Dealer” when she began stocking more household items and fresh produce. Tiyiselani bought fresh produce from the JFPM once a week either on a Monday or Tuesday, and although she owns a car, Tiyiselani takes a taxi to the Market at 4 am and hires a bakkie to transport her stock, coming back home around 13h00 and opens the shop at 13h30. Tiyiselani works alone but sometimes a family member helps when she has to run an errand. “But not always” she insists as she hits her chest: “This is my baby. I am responsible for my two children and close relatives so I cannot mess this up.”

Household buyers

Household buyers purchase produce in smaller quantities for personal and household use. In addition, household buyers include people who buy produce in bulk for family events (not caterers) such as funerals and parties. When organising such an event it becomes worthwhile to travel to the JFPM to benefit from the cheaper prices there.

PORTERS

Porters are people who help buyers carry their produce. Legal porters are registered with the JFPM and pay a flat rate to operate on the Market premises and thereafter set their rates with buyers who need their goods to be transported. These porters wear yellow reflective vests that indicate their place of operation (whether the hubs, Unity, or Mandela markets) and their

registration number on the back (Figure 10). Illegal porters called “*amagundwane*” - the isiZulu word for rat - also operate at the Market. These porters undercut legal porters by charging lower rates and do not pay to work at the Market. As a result, fights often break out between illegal and legal porters and are a great spectacle, especially on a Friday and Saturday when most informal traders visit the Market.



Figure 10: Porter pushing trolley. Source: Researcher's photo

FORKLIFT DRIVERS

Forklift drivers are infamously known as the “bosses of the road” at the Market. They do not concern themselves with other users of the platforms, alleyways, and roads. “Beeeeeep. Beeeeeeeeep!” Mpumelelo, a forklift driver reverses into the crowded vegetable hub. With one hand he steers his forklift and with the other he holds the *kota* (a quarter loaf of bread hollowed out and filled with a variety of filling, such as chips and polony, typical in South African townships) he is eating and leaning on the hooter. He shouts and provokes anyone who gets in his way, even his fellow forklift drivers; “*Haai wena!*” (Hey you!) he shouts at a man carrying a box of tomatoes and not paying attention to the forklift; “*Ngifuna ukudlula*” (I want to pass through). Mpumelelo's forklift is carrying 2 pallets of cabbages (approximately 2.5 tons in weight) that need to go to the Potato and Onion Hub.

Mpumelelo is 32 years old and holds a bachelor's degree from the University of KwaZulu Natal. He used to work for an NGO until he got retrenched 6 years ago and then found work as a packer at the Market. Mpumelelo does not think he will ever go back to a normal 9-5 job. “*Ni ku toloverile lana. A ni nga swi tshiki ku tirha laha*” (I am used to it here [JFPM]. I will not stop working here) Mpumelelo explains in his fluent Xitsonga, despite being Zulu. He says speaking Xitsonga is an advantage at the Market especially with the Maputo Mama's who are “big buyers” at the Market and tip very well. “Those Mama's buy lunch, I never try and cross them. They are very loyal. I can buy lunch every day because of their tips” Mpumelelo tells me, before he interrupts our interview to attend to a Maputo Mama who was calling him to move a pallet of carrots.

Forklifts are generally owned by the market agencies and sellers in the less-formal hubs. The forklifts have a sign on top indicating the market agency or hub and a registration number and the drivers are required to have an operator's licence. Forklifts can be driven inside the main halls, platforms and sometimes on the tarred road between the hubs when offloading and loading produce from trucks. Market authorities inspect forklift driver licences and issue fines to the market agencies that allow employees to drive forklifts without the correct documentation.

GATE CONTROLLER

Gate controllers man the entrances of sales floors and are employed by market agencies. They can be found along the alleyways in the middle of the halls and at the large doors leading onto the platforms outside the halls. Gate controllers are responsible for controlling the flow of produce in and out of the sales floor by inspecting all goods and receipts - essentially no produce can leave the floor without a signature from a gate controller.

FOOD VENDORS

Different food vendors can be found at the Market spanning across various degrees of formality. The most formal vendors occupy the brick-and-mortar restaurants and take-away outlets located in-between the main halls and the one restaurant at the back of the Vegetable Hub, while the least formal vendors are the women who sell tea, coffee, and snacks from mobile trollies.

Xiluva is among the vendors that operate from the JFPM with two stalls where she sells prepared food to visitors to the Market. She offers a proper 'seven colours' meal (a traditional South African meal that includes rice, chicken or beef, and sides such as pumpkin, sweet potatoes, beetroot, cabbage, beans salad, potato salad, or coleslaw¹²) at just R30 a plate. At her stall, there are over 8 salads to choose from, all in plastic buckets, which she serves with either pap or rice or both, and meat, as well as tea, coffee and vetkoeks. She buys her stock from the big cash and carry store next to the Market management offices and gets her fresh produce from the hubs or Mandela Market. She says she has no regular person she buys from; it depends on the price, additionally, when she buys from the hubs, she uses her card but sometimes it takes too long to load money on the card, so she buys from other people who bought from the hubs but first she checks their slips to ensure the produce is not stolen. This is because she doesn't want any trouble and knows that if she were to buy from someone that cannot prove where they bought the produce it would be confiscated when people that work in the hubs do random checks among the food stalls.

¹² For more information on the concept of the seven colours meal:
<https://www.houseandgarden.co.za/recipes/zaneles-7-colours-recipe-190b8d21-14f4-45d2-85be-a7a2f7406d5a#:~:text=Named%20for%20the%20assortment%20of,%2C%20potato%20salad%2C%20or%20coleslaw.>

Xiluva lives in Spruitview in the township of Katlehong about 23 km from the Market, but she is originally from a village on the outskirts of Maputo, Mozambique. She came to South Africa as a teenager to help out her sister, who was heavily pregnant at the time. While staying with her sister's family, Xiluva attended school until grade 10. After this, she worked in a factory in Alrode, Alberton (a few kilometres from Spruitview) and as a helper in some houses in Brackenhurst, a formerly white suburb in Alberton, before eventually starting to cook and sell food at the Market in 2008.

TRANSPORTERS

Various modes of transportation are used by buyers to come to and leave the JFPM. Buyers come in cars, bakkies, taxis, or trucks and leave in a different mode of transport and the taxis that service the Market can be found inside the premises - next to the Mandela Market. Meanwhile, bakkies available for rent to carry the produce bought can be found across the Market but are most dominant in front of the Unity and Mandela Markets (Figure 11).



Figure 11: Bakkies loading produce at Unity Market. Source: Researcher's photo

Over the years tensions have arisen between the bakkies that transport traders and their produce, and taxis. The taxi drivers were of the view that bakkies were taking away customers and thus decreasing overall taxi demand and the contestation dragged on until the bakkie drivers formed their own association which was able to negotiate a truce where bakkie drivers are only allowed to transport four passengers per load (Romanik, 2008; City of Johannesburg, 2004).

FARMERS

Farmers supply produce to the JFPM from both large commercial farms and small farms, and the commercial farmers are mainly white and small farmers are generally black. However, while market agents generally source from both categories of farms, they prefer commercial farmers due to the reliable supply they offer. Several market agents interviewed indicated that produce brought by small farmers was inconsistent in terms of quality and quantity and therefore they did not depend heavily on their supplies. Notwithstanding, there are also efforts by the JFPM management, NAMC, APAC and DALLARD to reach out to small farmers and assist them in improving the consistency of their supply. This intervention is important due to the role of the JFPM as a market that farmers need, as well as the role of farmers to the core functions of the Market.

CHAPTER CONCLUSION

In this chapter we have seen that the JFPM is a conglomeration of important infrastructure and a wide range of actors, which together create a platform for the buying and selling of fresh produce. It is a key space in the food system that bridges the regulated, semi-regulated, and unregulated (informal) markets. It comprises of an infinite number of communities, normally organised around particular ethnic groups, that form part of the organisation of the Market. The different marketplaces within the JFPM - the vegetable, fruit, and potato and onion hubs, as well as the Mandela and Unity Markets - each have their unique attributes which are forged through practice, word of mouth, and tacit agreements between the actors that participate in them.

Interestingly, the chapter shows that the Market operations, although much expanded, have not significantly changed since it moved to City Deep almost 50 years ago. The historical, pre-democracy ordering of the market, continue to linger. This is seen in the continued dominance of white market agents and white-owned market agencies that operate from the three main hubs. The importance of the large white owned commercial farms continues on the supply side. The large role of marginalised hawkers and vendors - previously many of Indian descent, now almost exclusively black and African - on the buying side also continues.

The contribution of key actors to the innerworkings of the JFPM are multifaceted and are influenced by economic and social forces. Each actor investigated played a significant role regardless of the position they held. Moreover, the portion of the life stories included in this chapter illustrate how the culture and background of actors contributes immensely to the nature of the JFPM.

The following chapter will look more deeply into the economic and social forces influencing transactions at the JFPM of today.

5. ECONOMIC AND SOCIAL FORCES AT THE JOHANNESBURG FRESH PRODUCE MARKET

INTRODUCTION

The mixed method approach used in this dissertation gave rise to several salient findings. The following section discusses these findings by identifying areas of triangulation whilst paying attention to the research questions outlined in the introduction.

This chapter starts out by giving an overview of the demographics of the actors at the JFPM that is an important part of the context. It then shares the main findings from the primary research carried out at the Market. These findings explore the views of research participants on the rationality of buyers, the priorities from the buyers' perspective, and issues that affect transactions at the market such as access to information, prices, the level of services provided, and brand loyalty. The findings are organised around responses to the structured survey, complemented with information gathered from the more in-depth semi-structured interviews.

DEMOGRAPHICS

GENDER

Observations revealed that the lion's share of people that visited the Market were men. One of the reasons is that the drivers of transportation (trucks, bakkies, cars, taxi's etc) to and from the Market are generally men. In addition, there are men who are not the owners of the businesses that actually purchase the fresh produce. Men were often sent by women who never travelled to the Market but remained at their business's physical location. This was more likely amongst street traders that operate alongside busy intersections and routes, and spaza shop mamas. Notwithstanding there are men who are traders in their own right and are not working for someone else. Another explanation for the high number of men is that some often accompany women buyers to the market. This is the case with Ntsetselelo, a wholesaler based in Tembisa. She comes to the market with four of her male employees: two of whom are there

to help gather prices, whilst another is responsible for packing produce, and the last employee is the truck driver that transports them to the market.

In addition, the historical background of the JFPM has a bearing on the gender distribution observed specifically amongst market agents, salespersons, porters, forklift operators, packers, and drivers. This historical background is a reflection of the common gender roles in society, hence the predominance of men playing these roles. This was further corroborated by the distribution of people interviewed for this dissertation; three out of every four people interviewed were men. Notwithstanding the distribution, women play a critical and often leadership role in the functioning of the market as women were often heralded as the most astute of negotiators at the Market. Similarly, some women (particularly the Maputo Mamas) are viewed as the social architects of the market. According to interviews the Maputo Mamas' selections of produce are highly regarded and generally mimicked by other buyers - thus shaping the activities of the Market.

AGE

The majority of people interviewed were youths (aged between 15 and 35 years). This high prevalence of youth is attributable to the researcher's age and the person who introduced the researcher to the JFPM. It is also indicative of the current age distribution as a result of the Covid-19 pandemic. Youths represented a smaller share of the people in 2019 during my observations of the JFPM in 2019, however, their representation grew as older patrons opted to stay at home as a precautionary measure to prevent catching the virus. Furthermore, increased unemployment owing to the pandemic led to an influx of youths, particularly of South African youths who were not initially highly active at the Market. This new influx has been confirmed by the registration of 3,000 new buyers at the JFPM within two months of the ending of the Covid-19 hard lockdown in 2020 (Wegerif, 2023).

Age was highly correlated with the experience of the people interviewed. The oldest person interviewed was 77 years and had been working at the JFPM for 43 years: a Portuguese man that emigrated to South Africa when he was 16 years old. The average years of experience of the research participants interviewed was 12.2 years at the JFPM, and the lowest was less than

one year. This high variance in expertise is linked to the ethnic background and nationality of the people interviewed, which are somewhat representative of the population of the JFPM. Some people had emigrated from across the continent (e.g. Nigeria, Zimbabwe, and Mozambique) and parts of Europe (Portugal). Notably, the Zimbabweans had been at the market for the least time - only coming to work at the market following the economic downturn in their country of birth. Meanwhile, certain Mozambicans were more experienced because they had arrived in South Africa before democracy.

In addition, a difference was observed between the experience of white and black people interviewed. White research participants interviewed recorded twice as many years in the Market as their black counterparts. The highest years of experience registered among black people interviewed was 34 years; the gentleman named Nyiko began working as a packer for an Indian wholesaler based at Unity Market in 1988. Nyiko, who is originally from Mhinga village in the Limpopo province, rose to be a supervisor by 1993 and began selling potatoes and other root vegetables for himself in 1997. Nyiko is one of the only black South Africans operating from Unity market, running the business with the help of two of his daughters.

Nyiko is well respected by his fellow wholesalers and is considered to be an unofficial elder, therefore playing an important role in the Market. This was evident during field observations when a fight between an informal and formal porter broke out. The scuffle began as a shoving match between the two gentlemen, then progressed to a full-blown fight. Cheering and egging them on, a crowd started to encircle the pair, and security was called to quell the tensions. Nyiko sat quietly in his hall and paid no attention to the scuffle outside. However, despite the intervention of security, the fight continued, and the crowd grew larger. It was at this time that Nyiko walked towards the fighting men and immediately the crowd quietened, security was able to handle the situation, the two men stopped fighting, and order was restored at Unity Market. The incident was genuinely astonishing. It displayed the influence of African cultural customs and norms, such as respecting elders, on the functioning of the JFPM. Furthermore, it showed how the cultural norms, and the agency of certain individuals, remedied the situation when formal structures failed.

Similarly, a group of older white men can be found sitting on folding chairs at the back of the Fruit Hub. These men no longer trade but oversee the activities of those on the Market floor, receiving respect from both patrons and salespersons. While there is no demarcated area for these men to sit, an effort is always made to make them comfortable.

RESPONDENT DISTRIBUTION

There were a total of 127 research participants. 167 interviews with this group contributed to the findings of this dissertation. The interviews included 127 structured interviews and 40 semi-structured interviews with a subset of the same respondents. The following analysis is mainly based on the structured interviews supplemented with the data from the semi-structured interviews. It is important to note that the total number of responses to particular questions do not add up to the total number of research participants as not all respondents answered all the questions. Further the sample of research participants is not statistically representative, so the results are not presented in percentage numbers but rather as the number of respondents. The numbers of respondents expressing particular views should be taken as indicative of the strength or weakness of certain views in the market, not as a claim that these results are representative in percentage terms of the views of all people at the market.

Table 1: Research participants

The respondent distribution was highly skewed towards market agents and salespersons due to the initial survey conducted in 2019 - which was solely with market agents. A total of 54 market agents and salespersons were part of the study, while buyers accounted for 45 of the 127 research participants (Table 3 and Figure 12).

Porters and gate controllers accounted for just 5 of the research participants but they turned out to be the leading informants, following market agents/salespersons, due to their knowledge of all the happenings at the Market. As all the produce has to be transported in some manner, observations and semi-structured

Type	No.
Gate controller	1
Intern	1
Food scientist	1
Cash and Carry owner	2
Truck driver	2
Input supplier	3
Tenant	3
Restaurant employee	4
Porter	5
JFPM employee	6
Buyer	45
Market agent	54
Grand Total	127

interviews revealed that porters and gate controllers were the arteries and chief connectors at the JFPM. A gate controller consolidates the flow of produce from his station but is also a facilitator of transport, information, and transactions for people who do not have smart cards. Meanwhile, a porter moves the produce consolidated by the gate controller, therefore, during his commute he gathers information and rents out his smart card to people who do not have one.

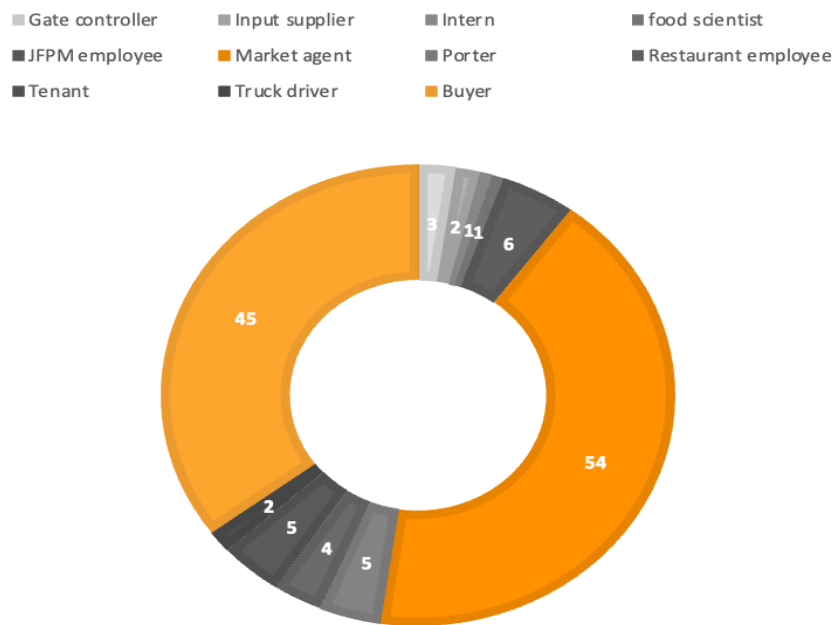


Figure 12: Respondent distribution

Similarly, explaining porter and gate controller activities underscores the different roles a research participant can simultaneously be engaged in at the JFPM. This phenomenon is not restricted to actors but was also seen among buyers. Of the 45 buyers interviewed, 44 engaged in more than two roles simultaneously as buyers were also unofficial middlemen for transportation and information and bought produce across the different buyer categories. For instance, a buyer can be a retailer, wholesaler, and household buyer while also being a transporter of produce for other buyers and a group administrator in a price sharing *WhatsApp* group. These roles occur in tandem with one another and cannot be viewed in isolation, thereby speaking to the multiple markets within the concept of a market described by Schneider et al (2014). According to Schneider et al, there are a plenitude of distinct markets which co-exist within a specific market in any given situation. Although these markets are

interconnected with each other, they are simultaneously in competition with each other. Moreover, there are attributes among some of these markets that are considered nested markets because of certain features the markets exhibit these multiple markets have numerous roles that the same people play; therefore, interactions at the JFPM are simultaneously interconnected and cross-cutting.

FINDINGS

RATIONALITY

50 people interviewed considered the decision-making process of buyers as rational (Figure 13). This cohort supported their claims by referring to the continued or repetitive purchases made by a single buyer, which is evidence of the neo-classical economics rule of the economic man. Johan, a market agent stationed at the Potato and Onion Hub, further elaborates, “the Market is a place for buyers and sellers to transact, so no person would rationally come here unless they came to buy and sell. Any other reason is foolish”.

Yet 22 survey participants neither agreed nor disagreed stating that, although buyers were aware that profit maximisation is the main objective for transacting at the JFPM, they were swayed by non-economic factors such as respect, trust, service, cultural norms, and standards. Takesure, a salesperson in the vegetable hub, delved further into the reason behind his choice in the semi-structured interviews. According to Takesure, buyers are temperamental and are known to cancel a transaction due to inconsequential things. As an example, Takesure recalled an encounter he had with an older woman a few days before our interview. The woman approached him and requested the price of a sugar pocket of cabbage and Takesure gave her the price and continued with another buyer. This infuriated the woman so much that she walked away because she expected Takesure to give her time to consider the price before moving to the next person. She walked to the other market agencies, asked for a price, and found that Takesure had the best price, but she chose to buy from a salesperson with a higher price because of what had happened.

Do you think buyers are rational?

(make the best possible decision from an economic point of view, only caring about profit)?

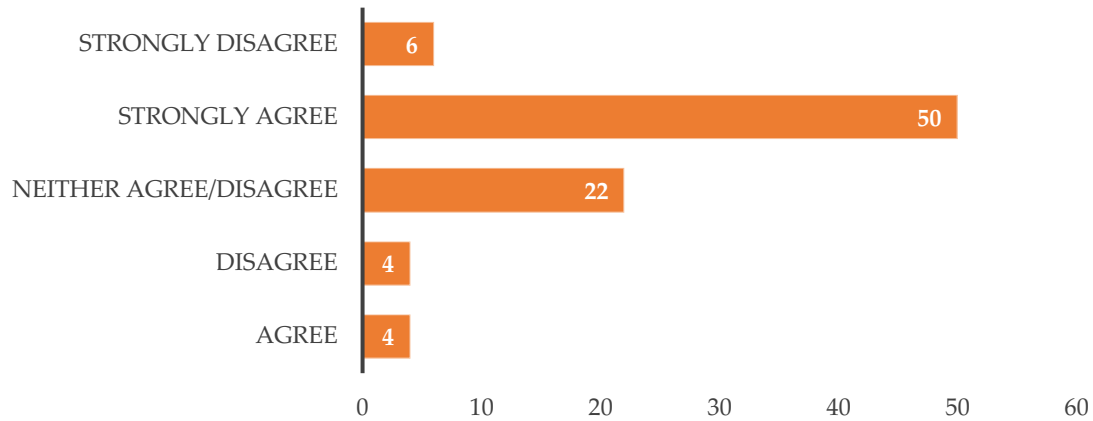


Figure 13: Do you think buyers are rational?

INFORMATION

57 survey participants believed buyers had all the necessary information to buy at the best possible price (Figure 14), with 41 out of the 45 buyers interviewed claiming the above statement was indeed true. Buyers referred to the ease of access to prices on the official JFPM and DALRRD websites and the word of market agents/salespersons. My observations, however, revealed that as much as prices are freely available, there are inequalities in the information collected due to social organisation and the various networks that were found while doing fieldwork. The dominant structure of this form of social organisation and related networks was linked to cultural, social, linguistic, kinship, and the geographical origins of those involved.

An example of this cultural and geographical social organisation was seen among the Maputo Mamas through Rosa's story that provides nuanced insights into these arrangements. Rosa came to South Africa from Mozambique 30 years ago with her husband and while she initially did not work, she began selling robot peppers¹³ after a friend's suggestion. The friend was selling robot peppers and was part of a group of Mozambican women who visited the market

¹³ Robot peppers are a packet of red, green, and yellow bell peppers. The term robot comes from the jargon used to describe traffic lights in South Africa. The colours represent the different colours found on a traffic light

daily and sold their produce alongside each other in Zonkeziziwe, Kathelong. The women often arrived at the Market as early as 4 am and split into groups of two: one pair loads money on the smart card (which they all share), and the other pairs visit Unity, Mandela, and the Vegetable Hub, respectively, in search of prices. The group communicates with each other using *WhatsApp* and through this method, they can amass a large amount of information in a short space of time. This gives the group better information and a competitive advantage among fellow buyers due to being part of the group that is held together by their cultural ties as women who all come from Mozambique and share a common ethnic identity and language. Therefore, the women in this social organisation are getting more information at a quicker rate than people who are not part of the group creating the inequality of information referred to earlier, although the prices are readily and freely available.

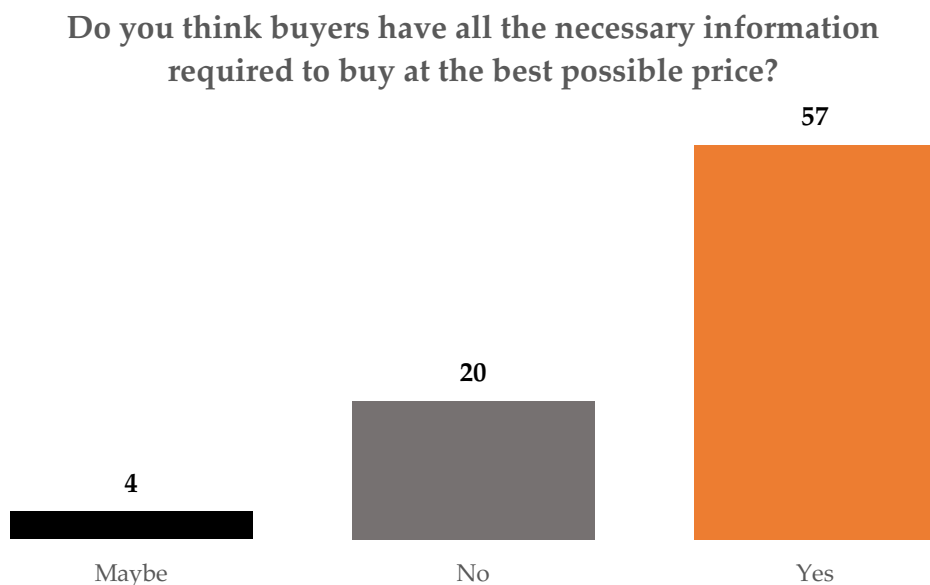


Figure 14: Information response distribution: Information response distribution

An additional aspect that leads to information inequalities is language. While English, as with much of South African economic life, is probably the most used language at the Market, the most common indigenous African language spoken is Xitsonga mixed with a few Portuguese words. The language's dominance is attributed to the Maputo Mamas as Xitsonga can be heard all over the Market, even from white market agents and other South Africans who otherwise speak the most dominant indigenous language in the country, isiZulu. Likewise, West African

traders from Anglophone and Francophone countries can be heard using Portuguese numbers in their negotiations. "Dois! Dois! No more Tres! Tres! Dois! Dois! No more Tres! Tres!" I have heard west African traders shouting, while standing on a stack of pallets at Unity market, to inform buyers that the price of peppers has dropped from R30 to R20 per box. The same terms are used by market agents and salespersons inside the formal hubs.

Notwithstanding the influence of Maputo Mamas, there are a sizable amount of other Xitsonga-speaking people at the market. These people form small communities on social media platforms such as *Facebook* and *WhatsApp*, where information is shared making it tough to get into these groups unless you also speak the language. As we saw with Rosa and her friends, these groups (based on language and other cultural connections) are more advantaged than those not conversant in Xitsonga. Moreover, this creates an information cluster mainly composed of people who speak Xitsonga. A similar information cluster was also observed among Afrikaans market agents and farmers, many of whom are Afrikaans speaking. The Afrikaans-based social organisation shares information amongst each other in Afrikaans creating information inequalities for market agents that do not speak the language such as the Portuguese and English market agents.

Information inequalities were not limited to social organisation but also existed on the market floor with the layout of the different hubs being a hindrance to equitable information sharing. For example, the Vegetable Hub does not display prices on the produce and the buyer needs to approach a market agent to acquire the going rate. As the communication is one to one, it is possible for the market agent to give different information to different buyers. Whereas in the Fruit Hub the closing prices of produce are publicised and market agents in the Potato and Onion hub place plastic price markers on produce to anchor negotiation starting points.

Another contributor to information inequalities can be found in the large number of products available at the JFPM, which can overload buyers' choices. For instance, an informal trader who needs to capitalise on the early morning rush hour is unlikely to peruse all available fresh produce on the trading floor making them more likely to buy repetitively from a few market agents based on previous experiences and relationships. As a result, the actual satisfaction

derived from a purchase might be divergent from the actual welfare (price minimisation) derived upon consumption, however the time saving is also essential to the buyer.

STRATEGY

All people interviewed, except one, believed that buyers employ some sort of strategy, and this was supplemented by the data collected in the semi-structured interviews and ethnography. Of the 45 buyers interviewed, 30 indicated that they shop around for prices. These buyers collected prices from several market agents and sellers (in the less formal Unity and Mandela markets) and the closing price from the previous day (as an anchor for prevailing prices) before making their decision to buy their produce for the day. Meanwhile, 10 did not shop around for prices, and 7 were neutral. The buyers that did not shop around for prices were restaurant and kiosk owners, market agency employees, and feeding scheme buyers. Market agency employees buy fresh produce for personal consumption and on behalf of the market agency when there is a wholesale or retail order that requires produce not sold by the market agency. For instance, a market agency that operates from the Vegetable Hub may have an order for carrots, cabbage, onions, and bananas. The carrots and cabbage are sourced in house, meanwhile the onions and bananas are sourced from the Potato and Onion and Fruit Hub respectively. In addition, the market agency may receive a large order that it cannot fill on its own and therefore needs to source the shortage from other market agencies. The restaurant owner, based at the JFPM, did not shop around for prices because he believed he was well informed from the conversations he had with patrons to his business who are market agents and buyers at the Market, while the kiosk owner did not have the time to shop around for prices therefore, they used the services of a porter when buying produce. The porter buys fresh produce on their behalf and advises the kiosk owner on the going rate of produce prices based on his extensive observation of incoming stock and sales during the course of the day. On the other hand, the market agency employee's reason was similar to that of the restaurant owner, stating that the environment they operated from deemed the need to shop around for prices irrelevant. Furthermore, the feeding scheme buyer cited that he found the whole process too cumbersome and preferred to use one market agent.

Similarly, when buyers were asked if there was a market agent they visited often, the largest number of buyers, 20 out of 45 people, stated that it depended on the situation, followed by those who responded yes (13 people), and 12 people who indicated no they did not have a market agent they go to often. The high incidence of buyers who said it was circumstantial (it depends) was anticipated, given the dynamic nature of the JFPM. There are no two days that are the same; instead, it changes and evolves according to the ebb and flow of produce and people. Risimati, a salesperson operating from the Potato and Onion Hub, explains his experience: "The market is never the same. It has moods. One day it can be high with lots of customers and other days, it is low with fewer customers. You just have to change with it in order to survive. So, it does not make sense to stick with a few market agents". Risimati's words were evidenced during the hailstorms that occurred in early 2022, which adversely affected the harvesting of carrots bound for the Market leading to fewer carrots being available on the trading floor. As a result, buyers began to scramble for available stock, neglecting long-standing relationships. An additional argument to the response *it depends on* is linked to the profit maximisation objective of buyers. This was the leading reason mentioned by buyers, particularly informal traders who make small margins on their produce. The same rationale was cited by buyers that indicated they did not have a particular market agent they go to.

Conversely, the 13 buyers who selected *yes* stated that they either had long-standing agreements with a certain market agent, did not have the time to peruse all the market agents daily, or favoured a particular brand or cultivar only available at these specific market agents. Additionally, 40 buyers interviewed indicated that they had a plan for making purchases at the JFPM and kept records of all their purchases, some as far back as multiple years. It is noteworthy that the sample included informal traders, who are often deemed to not to be financially savvy because their businesses are considered subsistence in nature. Yet, informal traders (particularly of foreign nationality), women, retailers and wholesalers were more likely to peruse the market floor for the best possible price. These buyers collect prices from all several market agents and sellers (in the less formal Unity and Mandela markets) and compare them with the prices of other buyers and within their price sharing circles before making a purchase.

In addition, informal traders considered weather conditions, salary, wage, and social grant pay cycles and storage facilities before making a purchase. Wilhelm, a market agent, corroborated this statement by stating that informal traders buying tomatoes to sell were more likely to buy loose selling tomatoes during the month than at the beginning and end of the month when they more often buy pre-packed tomatoes. Wilhelm believes that informal traders do this because they know consumers are less likely to have money during the month for pre-packaged goods so may opt to buy smaller quantities.

Similarly, buyers capitalised on the disposal timetable of the various hubs. Buyers were aware of when the freshest produce would be delivered and when spoiled produce would most likely be disposed of. For instance, the market is busiest on Tuesdays, Thursdays, Fridays and Saturdays. The influx of people on a Tuesday is because new stock/produce is generally delivered on a Monday, as trading at the market is prohibited on a Sunday. Meanwhile, on Thursday, the rise in activity is credited to the upcoming weekend. Additionally, market agencies typically receive more stock on Wednesday and at this time, informal traders, who account for the lion's share of visitors to the JFPM, begin to diversify their produce in anticipation of an increase in demand for ingredients needed to prepare *Sunday kos* - a meal traditionally eaten on Sunday in black households. As a result, informal traders increase their stock from cabbage, carrots, tomatoes, and peppers and include produce such as beetroot, pumpkin (or butternut), and potatoes. This surge in activity continues into Friday and is somewhat propelled by the need for market agents, particularly in the vegetable and fruit hubs, to clear their floors as the next trading week approaches. Interested buyers come at the end or start of the day to look for older stock going at lower prices and these kinds of buyers can be seen surrounding crates of tomatoes that are bound to be disposed of. The buyers look through the crates to see if any of the tomatoes in the crate can be salvaged and if there are enough tomatoes in a good state, they buy the crate.

Furthermore, buyers use this information to schedule their trips to the Market so that it aligns with the level of stock they have on hand and simultaneously meets consumer demand. For example, a buyer of cabbages who does not have refrigeration to store his stock will purchase enough cabbages on Tuesday when the produce is the freshest. By doing so, the cabbage buyer

does not have to come to the Market the following couple of days as the produce is still fresh. They are then able to use the money and time saved by not going to the Market to generate more income that better improves their business.

It is interesting to note that 34 out of 54 market agents interviewed viewed women buyers as the most intuitive as they considered all possible factors prior to making a purchase. In addition, market agents found women buyers to be more informed about the factors that influenced the price. Jaco, a market agent in the Vegetable Hub, corroborated this by referencing the indigenous knowledge systems applied by women who export fresh produce to Mozambique, "the Maputo Mamas". He tells of an encounter with an illiterate woman exporter who can predict the lifespan of a tomato based solely on the colour of the tomato. Therefore, Jaco is of the view that the exporter's (Maputo Mama) experience can be seen as evidence of a strategy that helps maximise profits.

THE LOGIC OF BUYERS

Buyers were asked to select the main factors they considered when making purchases. All 45 buyers selected price as the foremost factor, followed by quality of produce (43), seasonality/availability (26), produce brand/brand loyalty (21), cultivar (16), service (15), and market agent patronage (9). This distribution demonstrates that price and quality of produce were the main economic factors considered by buyers. While service and market agent patronage, although lagging in comparison to economic factors, were considered the main social factors that influenced buyer purchases.

SERVICE

According to the findings, service by market agents became an even more integral part of doing business due to the Covid-19 the pandemic. The majority of buyers were unable to visit the JFPM during higher lockdown levels therefore relied on actors such as market agents, salespersons, and porters to keep them up to date with the happenings of the Market. This, in turn, increased the role of service as a factor for transactions to be concluded and service was thereby viewed as an enabler for transactions. It ensured repeat customers and thus increased profits in an uncertain period.

Additionally, access to information also increased tremendously due to the mass adoption of social media platforms during Covid-19 - this evened out the playing field resulting in increased competition among sellers (market agents/salespersons). Consequently, sellers strived to exceed buyer expectations by increasing the level of service. For instance, Tinashe, a black Zimbabwean salesperson, negotiated with numerous buyers through social media and telephonic calls during Covid-19, thereby increasing his value-add by offering more than he did before the pandemic. During this period, he began to offer transportation services as an add-on to his services including the sourcing of transporters stationed at the Market and the loading of produce onto delivery trucks for his clients, particularly produce bound for outside South Africa. Tinashe states that this addition to his normal services was not sufficient on its own and that success was forged through continued and consistent social interactions. According to Tinashe, social interactions were critical to closing any transaction and these social interactions included the acknowledgment and respect of a buyer's culture as well as an understanding of the buyer's position within the fresh produce value chain.

Tinashe explains further by giving an example of Uncle Ashton, a Coloured informal trader, who sells chillies and garlic in Westbury, a small Coloured township in Johannesburg. Uncle Ashton is in his late 60s and visits the Market daily. Over the years, Tinashe developed a friendship with Uncle Ashton, to the extent that Tinashe stores Uncle Ashton's produce on the trading floor he operates from while Uncle Ashton shops around for more produce despite the fact that Tinashe does not sell chillies or garlic. This has been a standing arrangement for a few years and Tinashe gives two reasons for his hospitality: The first is linked to his cultural beliefs which hold older people with great regard: "I cannot expect him to hold this [referring to a stack of chilli bags and two boxes full of garlic] all over the Market. It is just not okay," said Tinashe. Meanwhile, the second reason was related to the mode of transport used by Uncle Ashton. Uncle Ashton travelled to the market by taxi, taking one taxi from Westbury to Bree Taxi rank in Johannesburg and subsequently walking to Noord taxi rank to take a taxi to the JFPM, using the same mode of transport to travel back to Westbury. In Tinashe's view the small reprieve he gives Uncle Ashton while he is at the Market somewhat lightens the elderly gentleman's load and allows him to have the energy to carry the produce bought. Tinashe appears very sincere in his reasons for assisting Uncle Ashton,

but also states the benefits he receives from the relationship: Uncle Ashton has introduced Tinashe to several informal traders who have since become Tinashe's clients.

The relationship between Tinashe (a black Zimbabwean) and Uncle Ashton (a South African Coloured man) is an example of mutual respect displayed amongst actors at the Market that can also cross the lines of race and ethnicity. Tinashe and Uncle Ashton have different cultural and ethnic backgrounds however, Tinashe understands how he should address Uncle Ashton in accordance to Coloured culture. He refers to him as Uncle, which is commonly used in Coloured communities as a sign of respect for elders, instead of Malume or Baba which is commonly used in African communities.

This example from Tinashe demonstrates the interconnectedness of service to social interactions. It shows that neither social relations nor service happen in isolation of the other but are interdependent. Moreover, they are not limited to the buyer-seller relationship but transcend that to include actors that operate on the periphery or parallel to the direct business activities underway. While the close relationship between Tinashe and Uncle Ashton did not yield direct economic gains - through buying and selling from each other - it led to increased business opportunities for both individuals. The increase in clients referred by Uncle Ashton improves Tinashe's sales figures, whilst the storage of Uncle Ashton's produce allows him to source more produce for his stall resulting in more profits.

Another point mentioned briefly by Tinashe worth further delineation is the acknowledgment and respect of a buyer's culture. Multiple cultures intersect at the Market leading to an intricate maze for sellers to navigate through. These cultures give character to the Market but have also led to informal subcultures of how buyers should be treated. For instance, all people call older women *mama* - the Zulu word for mother - a word used as a sign of respect and not necessarily because the people are related and has become a colloquial term used widely by people of all ethnicities and cultures. "There is no day where I do not use the word mama. It is just the way it is," remarks Kevin, a white market agent based at the fruit hub. The word, though borrowed from African culture, is a result of the interactions at the Market and highlights how certain cultures have dominated the activities of the Market.

Similarly, the example of the influence of the Maputo Mamas mentioned above is also evidence of the influence of culture on transactions at the JFPM.

PRICE

When it comes to influencing buying decisions, price was the leading factor in the structured interviews. However, the observations and semi-structured interviews revealed that this is not always the case as we saw with the example from Takesure shared above. In another example, Alfonso, a market agent of Portuguese descent, gave an example of how he had sold butternuts for an Afrikaans farmer at R35 a sack while on the same day an Afrikaans agent sold butternuts for the same farmer for R25 a sack. The farmer had split his delivery between the two agents and was very happy with the higher price Alfonso got for him. However, the following day Alfonso found the farmer had delivered butternuts to the Afrikaans agent and not to him. Alfonso explained this by saying that the farmer likes talking to the Afrikaans agent, they speak the same language, explaining that “it is all about relationships... it’s a kind of a race thing”.

Alfonso’s example was not isolated with other research participants sharing similar experiences, showing that the influence of culture is not limited to service but to price decisions as well. Prices that are offered and accepted are affected by more factors than mentioned in economics textbooks but are also the result of social factors. The decision of the Afrikaans farmer to stay with an Afrikaans market agent has not only decreased the farmer’s profits (and utility) but has also simultaneously disturbed the equilibrium price of butternut consequently increasing the deadweight loss; the cost to society created by market inefficiency, which occurs when supply and demand are out of equilibrium (Tuovila, 2022).. In addition, it shows that actors can behave in ways that are seen as economically irrational despite seemingly good profit maximisation opportunities. While actors may be swayed by non-economic factors, there are, however, instances when economic factors overshadow social factors. Buyers consider economic factors more than social factors when prices are high. Meanwhile, sellers consider economic factors over social factors when prices are low. In both cases it is when the actor is under greater economic pressure that social factors will become relatively less important. This divergence in circumstances leads to constant contestations

between actors which is fuelled by the dynamic nature of the Market that changes day-by-day, hour-by-hour, minute-by-minute.

QUALITY OF PRODUCE

The quality of produce was selected as an important factor affecting buying decisions. Since 2020, the interconnectedness of the South African agricultural sector to the global market became very apparent as the global market adversely affected prices at the Market during the pandemic. Correspondingly, the upturn in prices led to the exit of many actors and the entry of new actors who could better withstand the “new market” induced by global conditions. This, then, brought about a change in the Market’s demography, supply, and demand, with many of the actors interviewed stating that the Market had changed since Covid-19 and the global food crisis. “The people have changed. It is not the same people”, said Simon, a Malawian-born trader based at Unity market. In addition, the phrase “the Market has changed” was used several times by other research participants.

According to research participants the pandemic prompted a change in the Market. Supply declined for specialty produce such as table celery, broccoli, and lettuce and increased for produce consumed everyday such as cabbage, tomatoes, and onions because of a change in consumer demand as purse strings tightened. The increased supply was softened by higher export demand, due to higher prices in international markets, which inadvertently decreased aggregate supply to the JFPM. This, coupled with the negative effects of climate change on harvest yields gave rise to the current Market which can at times record consecutive days of flat (low) sales due inadequate stock. Although the height of the pandemic has passed, the Market continues to be stifled by the ongoing food crisis.

In the interviews 54 of 127 research participants stated that exporters were mostly likely to consider the quality of produce across the different buyer categories due to the long periods the produce is transported to reach its final destination. This was particularly the case for informal cross border traders who generally used eight- and four-ton trucks that had no refrigeration (Figure 15). Accordingly, retailers and wholesalers registered in second and third place with 51 and 46 participants, respectively, stating the necessity of both groups to satisfy end consumers. Meanwhile, hospitality buyers were considered the pickiest of buyers,

despite the fact that the produce bought would be consumed immediately. Essentially, hospitality buyers were specifically interested in the appearance of produce and spent a significant amount of time making sure that there were no imperfections in the produce they bought.



Figure 15: Four-ton trucks bound for Mozambique. Source: Researcher's photo

Figure 16: Four-ton trucks bound for Mozambique. Source: Researcher's photo

Similarly, the quality of produce was linked to the cultivar of the produce, with respondents highlighting that they generally selected the two factors together. Frans, a salesperson in the fruit hub, explains this relationship by reflecting on his experience with a Zambian informal cross border trader, named Robert, who buys citrus fruit from the JFPM. According to Frans, the cultivar matters because it relates to the durability and taste of the produce therefore the “Quality of produce and cultivar go hand in hand...especially for top tier buyers.” With this

in mind, Robert visits the Market twice a week and works as an aggregator of citrus for wholesalers and hospitality buyers based in Zambia. He spends the first day perusing the price of citrus and compiles a list of available produce according to cultivar as the Zambian market is particular about the type of citrus it consumes and as a result, Robert only buys the best produce on offer. As observed by Frans, Robert has even been known to decline an offer owing to the market agent/salesperson offering a cultivar he is not familiar with.

AVAILABILITY AND SEASONALITY

In the research gathered it became quite clear that the availability and seasonality of produce had a bearing on transactions, with these two factors considered the second and third most important, according to the research participants. Actors believed that availability and seasonality was far more important than quality of produce because of the demography of the people who visit the Market daily. In terms of buyer typologies, informal traders account for the majority of foot traffic. Informal traders are highly influenced by the availability and seasonality of produce.

On the other hand, some research participants made reference to the availability of produce from the supply side and how it influenced the functioning of the Market. One of these occasions was the potato price rally of 2023 induced by protracted bouts of load shedding which decreased irrigation periods and thus decreased the available supply of potatoes including those bound for the JFPM (Sanews.co.za, 2023). Consequently, potato prices increased by over 40% per packet within 2 months, adversely affected the entire potato value chain; however, the biggest blow was felt by the informal sector which feeds people in urban poverty. With small margins, the informal sector was unable to absorb the rapid change in price nor could they pass the price increase on to their customers who were also struggling financially.

When it comes to seasonality, it was made apparent that Seasonal fluctuations had an important impact according to buyers, particularly in relation to price changes. Although they were more buyers visiting market agents and stalls that sold staples such as cabbage,

tomato, and carrots daily, this shifted during the various seasons as buyers are known to flock towards stalls that stock produce in season. They can be seen to frequent the citrus and potato sections of the Market more often during winter when those items are in season, and as a result both buyers and sellers adjust their price expectations according to the seasons due to the impact on availability and prices.

The data reveals that seasonality and availability of produce were viewed as complementary factors influencing the decisions of buyers. However, the combination was most important to retailers (58), wholesalers (56), and exporters (55). The reading for exporters is explained by Gezani, a salesperson based in the Potato and Onion Hub. Gezani has worked for the same market agency since 1993 and while he has a variety of customers, his biggest buyers are informal cross-border traders. He has studied their patterns throughout the years and has observed that informal cross-border traders buy based on the seasons in South Africa and the countries they supply. Gezani uses the example of an informal cross-border trader who buys onions for the Zambian market. Onions were initially not grown in Zambia but over the years there has been an uptick in production by Zambian onion farmers, however, these farmers are not able to meet all of Zambia's onion demand and only produce onions during a specific time of the year. Therefore, this Zambian informal cross-border trader leverages on the off-season by buying onions at the JFPM and exporting them to Zambia, additionally exporting onion cultivars that are not available in Zambia such as shallots.

Retailers and wholesalers, on the other hand, were interested in seasonality because of the change in consumer demand in recent years owing to the Covid-19 pandemic, erratic weather conditions, and the heightened food inflation. Formal and informal retailers, in particular, mentioned that they had decreased the types of produce that they sourced from the Market and stuck to staples because their customers cannot afford non-essential items. Notwithstanding the reasoning at retail level, households/housewives that bought at the Market considered availability and seasonality of produce the least important factor among other buyer categories. Households/housewives stated that prices at the JFPM were lower than prices at retail level therefore higher prices due to off-season did not dent their pockets as much as other buyer types. It is worth noting that the households/housewives buyer

category included people who had come to the Market to buy produce for special functions such as funerals and parties.

An additional significant category interviewed are buyers for school feeding programmes. Although only three such buyers were interviewed, they gave valuable insights, with the main one highlighting that the programme prescribes the produce that the buyer needs to supply to schools, therefore seasonality and availability did not rank highly for these buyers. As a result, these buyers were interested in meeting their specifications which did not include the particular cultivar, so they were more likely to buy cheaper substitutes when there was insufficient supply of a preferred cultivar.

Foot traffic

An additional aspect that came to the fore during this research was how foot traffic had a bearing on the activities of the JFPM. According to observations, foot traffic increases during warmer months and decreases during cooler months. With warm weather comes an increase in the rate of spoilage which is a key factor for informal traders who generally do not have access to refrigeration facilities and therefore stock their produce daily, thus a rise in foot traffic. Conversely, cooler weather prolongs the shelf life of produce leading foot traffic to fall as the informal traders do not have to visit the market as often. Foot traffic also varies on a day-by-day basis, with conditions such as bad weather conditions oftentimes leading to a dip in foot traffic as those who frequent the Market daily, particularly informal traders, cannot operate from their respective places where they often don't have adequate shelter. For instance, rainy weather can lead to a decline in foot traffic in Johannesburg CBD for informal traders that sell in the streets, either in set locations or, as with the trolley traders, moving around the city looking for customers. The weather makes it uncondusive to operate and thus makes a visit to the Market unproductive. If the trader spends money on taxi fare and stock but is unable to sell the produce bought, a loss of capital and income is inevitable. Furthermore, the trader may not have storage facilities, which then creates another burden which is not accounted for. Additionally, heavy rains adversely affect the transportation of produce, leading to the spoilage of produce and it's packaging thus limiting the profit-making capacity of traders, especially those who use trolleys and uncovered bakkies to transport goods.

BRAND LOYALTY

Brand loyalty tallied in fourth place for research participants. Buyers selected the factor for many reasons, however it was the surety and security that was associated with a particular brand that made the factor more pronounced. Andre, a market agent, expands further on this rationale by giving an example of informal traders who buy tomatoes. According to Andre, informal traders generally buy name brands such as ZZZ; because of refrigeration and storage limitations they do not stray from brands they trust. If the price is too high for a single box, informal traders are known to club together to buy a crate of the preferred brand, in this case ZZZ tomatoes, and the share it amongst themselves.

Branding is also highlighted in the market through the signage of particular farms that can be found hanging above the sales floors that represent them. The buyers are aware of these signs and use the names of farms to distinguish between various cultivars, as some buyers are loyal to a particular brand and will not buy another brand unless it is absolutely necessary. For instance, Pedro, a cross border informal trader to Mozambique only exports Rugani carrots, a brand he prefers due to its lifespan. According to Pedro the carrots are able to last the two-day journey to Mozambique with minimal spoilage, however, this loyalty was once tested during a series of heavy rains in early 2022. The rain made it extremely difficult to harvest Rugani carrots and as a result Pedro purchased a different brand of carrots. According to Pedro the new carrots were not as good as those produced by Rugani: they tasted different and were easily spoiled during the journey to Mozambique. He has since vowed to never buy that brand again stating that the loss, he suffered far outweighed the convenience of buying a close substitute.

Zambian buyers are also considered to be particularly brand loyal. They are often seen in the market reviewing stock and making calculations in A6 notebooks and on their cell phones. These buyers are generally men, tend to work alone, and are considered to be skilful business people by market agents. Additionally, Zambian buyers tend to be seasonal and leverage price differences created by off-seasons in their home country, as a result, they only buy the

best produce and are willing to wait if a particular cultivar is unavailable. Market agents see them as patient negotiators whom they refrain from antagonising.

Brand loyalty was also revealed as a determining factor for hospitality buyers, particularly those engaged in the production of specialty foods such as kotas and those operating from kitchens in places like hotels. These buyers were not only interested in the brand but the cultivar of the produce as well. Of the 45 buyers interviewed, five came from the hospitality industry and all five of these buyers selected yes on the question “Does the farm where the fresh produce comes from matter?” The reasoning, interestingly enough, was related to the function of the produce. For instance, buyers for hotel chains and catering businesses were concerned about the taste, firmness, and colour of the produce which came with a particular name brand or cultivar. According to Xiluva, a kiosk owner who sells prepared food at the Market, “they just do not taste the same. They can all be Saphira potatoes, but one brand is always better than the other”.

Furthermore, 40 research participants, including exporters, retailers, and hospitality buyers indicated that the farm where the fresh produce comes from matters. According to the data, exporters were almost three times more likely to be brand loyal than housewives and informal traders who recorded the lowest reading at 13 selections, respectively. One market agent dubbed exporters as the “Woolworths” of the Market, stating that their decision making was far superior to any other buyer category. Nonetheless, brand loyalty was not limited to a specific buyer category.

In response to the question “does the farm where the fresh produce come from matter?” All 45 buyers stated that it depended on the circumstances, which when unpacked involved the buyer, the purpose of the purchase, and the role the buyers were playing. For instance, a market agent explained that he considers the brand when doing a wholesale order for a picky buyer but not for school feeding programme buyers. The circumstances and the buyers also affect the importance of the brand for Xiluva; she knows that there are brands that her customer prefers for certain dishes, and she has to buy those brands to keep those customers happy but for other dishes the brand does not matter to her or the customer. A semi-

structured interview with a restaurateur based at the Market named Xiluva, explained her answer by stating, “I buy what works best for both me and my customers”.

CHAPTER CONCLUSION

This chapter presented the views and experiences of research participants in relation to the factors that inform buying decisions. Key factors are price, quality of produce and service. It illuminated how economic forces remain dominant but social forces also have an implicit and explicit influence on the economic activities of the Market. Different buyers have different and also shifting priorities depending on the needs of their customers and changes in supplies. The balance of economic and social forces at the Market are constantly in contestations and dynamic in nature. While the priorities that emerged from the structured survey seemed quite clear, such as the belief of most respondents had access to the required market information, some respondents disagreed, and the in-depth interviews revealed a more complex picture with social organisation also changing access to information for some.

In addition, the crucial role of the informal sector in the innerworkings of the Market is shown in this chapter. In particular, the influence of informal cross-border traders and wholesalers, women buyers, and cultural norms emerge as shapers of operations at the JFPM.

The following chapter discusses the key areas of unlearning and relearning, and presents the main conclusions identified in this dissertation.

6. UNLEARNING AND RELEARNING MARKETS: DISCUSSION AND CONCLUSION

INTRODUCTION

This closing chapter starts with a discussion of the findings that broadly responds to the research questions set out in Chapter 1. These research questions ask about the physical space and the actors at the Market, before going into how the interaction of social and economic forces shape transactions at the Market. It then explores the development contribution of the JFPM, especially in relation to food security and livelihoods. Recommendations are suggested where they arise based on lessons learnt and shared in this dissertation. The concluding section identifies further research needs and summarises the core arguments.

DISCUSSION

The Market

The JFPM emerged out of a long history that started in the market square of the late 1800s mining town of Johannesburg. As the city grew, so did the market and its physical, social, and economic character is very much a product of that past. The highly regulated system of selling through registered agents has been long established, with good intentions of protecting the interests of farmers and having an orderly market. The dominance of white agents and agencies, themselves ethnically divided, has historic roots with links to the structure of land ownership and farm production in the country. It is interesting to note how hawkers and vendors, always from marginalised groups – more of Indian descent in the past, now almost exclusively black and African with many originally from other parts of Africa - played a key role historically and still do today.

The JFPM is in part an important collection of extensive infrastructure, as was described in Chapter 4, that enables a large volume of trade in fresh produce. This includes the spaces in the main hubs and the Mandela and Unity markets where agents and traders store and display produce and ultimately sell it. The cold storage and banana ripening facilities enable particular trade that would not work without these. The range of other shops, banks, eating places, and

office spaces around the Market site all contribute to creating an eco-system that the core function of the Market depends on. The maintenance, improvement and expansion of these facilities is essential to the JFPM keeping up with demand and performing its key role in the fresh produce sector. Unfortunately, the decay in this infrastructure is a core concern, although the recent construction of the new Tshiamo Market facility (Mamabolo, 2023) and Capex commitments in the CoJ and JFPM budgets are encouraging.

This dissertation has shared information about the wide range of actors involved in the JFPM, and some of their stories that illustrate their roles. It turned out to be harder than first thought to identify who the key actors and “market makers” are. The interconnectedness between actors and the overlapping roles they perform illustrates how all are key to the operations of the JFPM. The gate controller may at first appear to be a shabbily dressed security guard but turns out to be a key source of information and connections for other actors, not to mention a very well-informed research participant. Nyiko, an unassuming older man with a stall at Unity Market, turns out to play a central role in dealing with disputes and maintaining unity across the traders, porters, and others in the Market who come from a wide range of places and backgrounds. The woman selling food from a small stall in the parking area is not only providing food but also the meeting place where social bonds are reinforced, and information shared.

At the heart of the buying and selling of produce at the JFPM, are the agents on the trading floor and the buyers they sell to. The agents are part of agencies and must be registered with APAC. They are also supported by the salespersons, who often perform very similar roles to the agents, and administrative staff who process the transactions. Traders at the Unity and Mandela Markets perform a similar role to the agents as they conclude the sales to buyers and often also hire assistants. The buyers cover a range of types, as elaborated in Chapter 4, and how they make their decisions is essential. The buyers, like the agents, have their support networks which often include being part of different forms of collaborations based on social networks through which they get information and support.

The JFPM management along with the over 300 staff play a leading role in the Market's governance and in determining the extent to which it is a conducive environment for its core business of fresh produce trading. Failures in the management are blamed for challenges that undermine the JFPM, such as the poor condition of some of the infrastructure. According to the market agents interviewed, the poor management of the JFPM was a grave concern. The unstable politics at the CoJ has had a bearing on the function of the Market through politically driven changes in the management and governance structures that have led to inconsistency in the delivery of services, maintenance, and infrastructure plans. This indicates the importance of protecting the Market, its management, and assets, from the political battles while also trying to ensure a strong and consistent political commitment to supporting the Market.

Interplay of social and economic forces

The JFPM is undoubtedly a place of financial transactions with economic forces – such as supply and demand – shaping actions and people's desire to get a good deal – maximise utility – also a strong influence, especially in hard economic times. At the same time, this dissertation shows that social relations have a bearing on the transactions and wider functioning of the Market. Social relations are essential to facilitating actors' entering into the Market (often through family and friends' networks) and enabling them to prosper in the Market. The social and economic interests and forces set parameters for each other as seen in how, at times, price might lure a buyer to an agent they are not familiar with, while at other times a buyer or seller will work with the agent they are more comfortable with (or refuse to work with an agent they don't like as in the case shared by Takesure) even when this means they don't get as good a price as they could. Social relations also enable actors to position themselves for better economic decisions, such as through the sharing of price information in groups and between friends to be in a better negotiating position.

The functioning of the JFPM involves a complex interaction between these economic and social forces within a regulatory environment that combines free market discourse with high levels of regulation, such as the strict regulation of the agents and their commissions. These formal and informal governance arrangements continue to be influenced by the apartheid history and

have not changed much in the last decades. Among other factors, this influence is evident in the nature of the various social groupings and the long-term social relationships among actors of the same ethnic and cultural background.

There are long-standing links between the established agents in the largest agencies and some of the largest commercial farms in the country. Links that are reenforced through, often all white, social occasions, such as braais on farms, and the common communication in either Afrikaans or English depending on which network it is. Arguably, these are elite networks that enable the privileged to hold onto their advantaged positions. Established farmers, still mostly white, sell their produce through market agents that share the same ethnic or cultural background as themselves; primarily Afrikaans, English or Portuguese. For example, market agents of Portuguese descent specialise in the selling produce sold by Portuguese farmers, and so on.

This clustering is not limited to the relationship between farmers and market agents but was witnessed amongst buyers as well. Buyers who visited the Market frequently, such as informal traders, organised themselves based on language, area of operation, and where they came from. The members of informal trader WhatsApp groups tend to be all black and use a common African language. These groups assist otherwise economically marginalised people to overcome obstacles they face - including having limited access to capital - to improve their position in the Market and grow their businesses. The most dominant group are buyers who speak Xitsonga and have formed groups for bulk buying, sharing information, and organising of transportation with the influential Maputo Mamas being amongst this group of buyers. In these examples we see how otherwise marginalised groups - notably black women - have managed to organise themselves to take up a strong, sometimes even dominant, positions. We can see how social networks, that are often ethnically based, can be important for many people to advance themselves. And these networks and advancement through them does not require enormous financial resources, the possession of which is usually the other route to advancement in any market.

Socially embedded economic relations (Granovetter, 1985), involving trust and reciprocity, help facilitate day-to-day transactions and are central to keeping the Market running smoothly, as other researchers have found in other markets (Batt, 2001; Viteri, 2010; Black, 2012; Schneider et al, 2015; Range, 2015; Wegerif, 2017; Chikulo, 2020). The downside of this, in the highly divided South African society, has been that the social relations also become culturally and ethnically based barriers to entry for emerging farmers and market agents, particularly those who are black. Interviews with black farmers and salespersons indicated that these barriers to entry were the leading bottleneck to equality and equity at the JFPM. Herein lies a serious dilemma. It would seem that dismantling some of these social networks is essential for a more united and equitable Market, with a far greater role for black farmers and agents, yet these social networks are also essential for the smooth functioning of the Market. The hope would be that ways can be found to extend the positive values that underpin collaborative social relations beyond and across the racial and ethnic groups within which they currently thrive. A few examples of where this has happened were shared in the preceding chapters, such as the mutually beneficial relationship between Tinashe and Uncle Ashton.

There are also social gains that actors derive from visiting the Market in addition to the economic benefits. There are friend networks that exist beyond the economic activities at the JFPM such as the group of old white men that sit in the citrus section of the fruit hub. Although they are retired, they still come the Market as it is central to their social life and sense of purpose. This is also evidenced in the numerous social interactions that people are involved in at the Market, whereby they meet friends, share jokes, ask after loved ones, etc. Furthermore, these social gains extend to activities outside the Market when people attend braais, funerals, and other events with people that they have met at the JFPM.

These social dynamics and benefits ought to be fully understood and considered during the planning and development of markets and other parts of the food system. The literature reveals that consideration of social conditions is limited in the policy and regulation. The focus is instead mainly based on conventional economic theory, which advocates for supply-side responses whilst neglecting the social factors that make up the food system.

Food security and livelihoods contribution

The findings highlight the contribution of the Market as a source of supply of food, in particular for poorer communities through the informal sector. This is indicated by the quantity of food - more than half of around 10 billion Rand's worth a year - going to the informal sector and being sold on in low-income neighbourhoods. There is a shortage of data on informal sector prices, but recent studies are confirming that informal sector actors, such as street traders, are selling at affordable prices that substantially undercut prices in the formal retail outlets, such as supermarkets (Wegerif, 2023). In addition to maintaining low prices, the informal sector makes fresh produce, which is essential for healthy diets, more accessible by selling in flexible quantities close to where people are in low-income areas, as illustrated in a number of other studies (Battersby and Watson, 2018a; Rudolph et al, 2021). New information provided in Chapter five of this thesis, shows how informal traders are responsive to their customers' needs as reflected in their shifting buying patterns at the Market. Further, we can see some of the ways in which their flexible and strategic buying in the Market enables them to keep prices down, for example through buying reduced cost items nearer expiry date and using their social networks to secure the best deals. Collaborations, such as the sharing of hired transport, also keeps costs down and barriers to entry low for new traders.

The JFPM makes a multifaceted contribution to food security across the six dimensions of food security as articulated in HLPE report 15 (HLPE, 2020). The Markets most important contribution, however, and our focus here, is on the food security dimensions of agency and accessibility. The contribution to food accessibility has been shown above and is largely through the way the Market is key to supplying informal traders who make food accessible through low prices and other factors. The Market, with its diversity of buyers, also plays an enormous role in expanding the agency of the final consumers of food by giving them more choice in what they buy and eat and from where. The informal sector buyers exemplify agency as they, often with limited resources and under difficult circumstances, take individual and at times collective action, to create livelihoods for themselves and make more food buying options available. As we have seen in the findings presented, these range from young men

pushing trolleys through the streets loaded with fruit to women sending truckloads of produce to neighbouring countries.

Beyond its contribution to food security, the JFPM contributes positively to livelihoods especially of immigrants, informal traders, and people living in urban poverty. Some people came to the Market as immigrants and have been able to build a life for themselves, like Rodrigo and Uche who both started off as employees but are now employers. There are many informal traders who have accomplished a lot through their selling of fresh produce; they have built multi-storey houses, paid university fees, and supported immediate and extended family members through the work they do.

The Market directly and indirectly, employs thousands of people. It has large multiplier effects into the agri-food system and the wider economy, thus contributing to jobs and business opportunities. As a source of stock for formal and informal wholesalers and retailers it enables many businesses to operate and thrive. As a source of demand for agricultural produce it helps sustain farms and employment on those farms. The transport operators, formal and informal, who bring produce and people to and from the Market are an example of other sectors that the Market contributes to.

The positive contributions of the JFPM are, however, under threat. The JFPM is the largest municipal market in South Africa and has sustained or grown the volumes of produce traded there in the last years, but it has recorded a decline in the proportion of the total fresh produce sales in the country that it handles. The same declining market share has been observed in municipal market across the country. According to the interviews conducted, this decline is chiefly attributed to the use of direct buying by large supermarket groups through their supply chains. The adverse effect of the dominance of supermarkets, within the South African food system, has been identified as an area of concern among scholars as they limit the options for farmers, in particularly small-scale farmers who cannot meet the requirements of the high volumes and very particular quality demands set by supermarkets (Heijden and Vink, 2013; Chikazunga et al, 2015; Greenberg, 2017). Therefore, this threat from supermarket supply chains to the central role of the JFPM and other municipal markets is also a threat to the farmers

who sell to the JFPM and to the livelihoods and roles in the food system of multitudes of informal traders.

The informal sector not only benefits from the JFPM, it is also crucial to the functioning of the Market, although still often underestimated in much conventional economic analysis. The informal sector has been able to absorb supply from large farmers, and from small-scale farmers that are unable to join supermarket value chains. By creating demand, they have lessened the threat to the JFPM presented by supermarkets increasing their direct buying from farmers through their own supply chains.

The contribution of informal traders to the Market was particularly felt during higher Covid-19 lockdown levels which prohibited informal traders from operating. Market agents, salespersons, and prepared food vendors indicated that the Market was quiet with some market agencies closing earlier than normal because there was no foot traffic, which generally comes from informal traders. The Market was in a serious slump because the informal retailers and wholesalers, including cross-border traders, were unable to visit the JFPM.

Therefore, it is essential to support the Market so it can continue providing the competitive advantage that informal traders have when sourcing stock there. Additionally, it is essential to support the informal fresh produce sector so it can continue to be a growing source of customers for the Market. Support should include increased investment in the JFPM and could also include the development of more local public markets and the securing of space to trade in the streets through improved municipal plans and regulations.

To its credit the JFPM management, with backing of the CoJ, has taken steps to further accommodate the informal sector into its planning and development. In 2023 they opened the new Tshiamo Market which caters specifically to the informal sector (Mamabolo, 2023). It is important to note that the efficacy of Tshiamo Market in improving the experiences of informal traders has not been investigated in this dissertation as it opened after the research was completed and when the writing up of this dissertation was well underway.

CONCLUSION

The results of this study have led to numerous points of unlearning and relearning. The most significant is learning the importance of social and qualitative information in explaining market phenomenon where economic and statistical data is unable to do so. A thorough study of any market should encompass and acknowledge the people and their social relations that comprise the market along with economic factors. The JFPM is fluid in nature and cannot be understood only through a snapshot, which can only represent it at a specific point in time. Instead, it needs to be understood as a dynamic organism that ebbs and flows according to various social, economic, and environmental factors. The Market is not one dimensional but comprises a myriad of dynamic economic and social forces which are constantly in contestation.

The study suggests that there is a need for the JFPM to be transformed to better fit the changed social conditions and remain economically competitive. Achieving this will require the adoption of policies, planning, market maintenance, and regulations that are supportive of the JFPM and informed by a thorough understanding of the nature of operations at the Market. Interventions should give equal consideration to the implications of the economic and social forces at play in the Market and the wider food system. Of particular importance is taking into account the operation of the informal traders who are collectively the largest buyers at the Market. An enabling environment for these informal traders, not just in the Market but where they sell, will help sustain the Market and its positive impacts.

People, a diverse range of them, are the main driver of activities at the market through the ways in which they exercise their agency. As such, the JFPM cannot be analysed from one point of view but needs to be understood through the lens of different actors and at different points in time. The JFPM cannot be captured in a static or even dynamic econometric model with stylised facts as it is an active organism that is shaped by the people who interact in it, the infrastructure in and around it, changing weather across the region, the policy and political environment, and the wider economy.

The findings do not deny the importance of economic fundamentals, in fact they confirm that narrowly economic considerations, such as price, are very important drivers of market decisions. Every enterprise, from the informal trader to the agencies and farmers, must be financially viable. The point is that much research and policy making has too narrowly and exclusively focused on economic dimensions. As an economist, I was surprised to find out just how many other factors were at play in shaping the Market. The findings show us that actors in the Market are neither completely embedded in socialised relations nor completely embedded in economic relations. They are socio-economic beings, working with, weighing up (consciously and subconsciously), and employing both social and economic considerations and strategies.

This study confirms the existence and the importance of the social embeddedness of economic relations in the JFPM. An interesting point that emerges in this study, in the highly unequal and racially divided South Africa, is how social relations that help facilitate the functioning of markets and facilitate entry into the Market for many, can also be mechanisms for exclusion and the reinforcement of divisions in the society. There is a need for transformation at the JFPM to overcome the racial and ethnic divisions and ensure a meaningful role for more black agents and agencies. This could potentially be achieved through the augmentation of current government interventions to better address the financial and social constraints, challenging the divisive elements of the linguistic, race based, ethnic, and familial networks that dominate at the JFPM. The challenge, which needs to be handled sensitively, is to bring about any changes in a way that does not unstick the social glue that, even if divisive in some ways, is so important to the Market's operation.

Furthermore, this research project revealed that the JFPM contributes significantly to the wider economy, food and agriculture industry, and livelihoods of South Africa. Activities at the JFPM give rise to multiple interconnected activities in cross-cutting sectors that fall outside the boundaries of the Market. Fresh produce from the JFPM generally serves as stock for other operations and consequently becomes essential to other enterprises, including formal and informal wholesalers, agro-processors, and retailers. These activities generate multiplier effects to the Gauteng and South African economy.

The most important development contribution of the Market is probably its contribution to food security. The JFPM is a key node in the important supply of the healthy foods of fresh fruit and vegetables. In particular, the way the JFPM is a source for the multitude of small-scale informal traders is contributing to improving food security through increasing food accessibility and the agency of actors. The informal traders, through their links with the JFPM, create livelihoods for themselves and others, and sell fresh produce in low-income neighbourhoods at lower prices than the formal sector and also in quantities and from locations that make that food more accessible.

The main threats to the JFPM come from firstly the shift to more direct buying by supermarkets through their own supply chains and secondly from poor governance in part linked to political turmoil in the CoJ. It is hoped that a greater realisation of the importance of the JFPM will encourage all in the CoJ, and political and government structures beyond that, to value, protect and invest in and the JFPM. The threat from supermarkets can be countered with the efficient operation of the JFPM to make it competitive and by building on the success of the symbiotic relationship between the informal sector and the JFPM. Planning, investments, and regulations, in the JFPM and across Gauteng need to work to create a more enabling environment for that informal fresh produce sector. It is of paramount importance for the government to value and invest in the informal fresh produce sector given the contribution of informal traders to municipal markets.

Despite these challenges, the JFPM continues to thrive, owing in large part to the contribution of the informal sector. Market agents interviewed stated that the informal sector was the mainstay of the Market with informal traders accounting for the majority of buyers and sales. The JFPM also remains a key market for farmers, large and small, and is of particular importance for small-scale farmers who cannot hope to sell into supermarket supply chains. This makes it all the more important that the JFPM is sustained and that obstacles, social and economic, that small-scale and emerging black farmers face in the JFPM are addressed.

This dissertation provides some understanding of the largest fresh produce market in South Africa and the continent. It offers a glimpse into the innerworkings of the JFPM. There is a need, however, to conduct further research that can work with larger samples and further study this complex market and cover its transition overtime. It is essential to further map out the activities of actors at the Market through the lens of the multiple roles that they are involved in. The mapping should include the activities of these actors that are linked to the market but take place outside the Market, such as the retailing of fresh produce, in order to understand better their successes and challenges, particularly the informal traders who are the distribution nexus with the urban poor. More research is also needed to understand the experiences of farmers supplying the JFPM. The farmers are a key constituency that the JFPM serves but it was beyond the scope of this study to include them.

It is hoped such further research will allow for better interventions at the policy and planning level which will be enabling of the agency of the actors that participate in the activities of the JFPM. This will improve the efficiency and efficacy of interventions from a social and economic perspective.

In conclusion, the findings of this dissertation have highlighted the vital role of municipal markets in the South African food system. The most notable contribution being to food security (through accessibility), job creation, and livelihood opportunities. Therefore, it is essential to increase well directed support for the JFPM and other municipal markets to enhance their key role in the food system and wider society.

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ANNEXURES

Annexure A – Survey Tool

1. Buyer-Focused Survey

<p><i>I am a</i> _____</p> <ul style="list-style-type: none"> • Retailer • Wholesaler • Hospitality business • Exporter • Informal Trader • Household buyer (for personal use) • Exporter • Other _____ <p>Age _____</p> <p>Gender Female <input type="checkbox"/> Male <input type="checkbox"/></p>	<p>1. What do you care about when buying at the market?</p> <p>_____</p> <p>_____</p> <p>2. Do you feel that you are well informed (prepared/have all the information) before buying something at the market?</p> <p>_____</p> <p>_____</p> <p>3. Do you have plan for making your purchases at the market?</p> <ul style="list-style-type: none"> • Yes • No • I don't know • Other _____ <p><i>If other, please explain further</i></p> <p>_____</p> <p>_____</p>
---	--

Owner/Employee of business

Y	N
---	---

On which days of the week do you visit the market?

Mon	Tues	Wed	Thu	Fri	Sat
-----	------	-----	-----	-----	-----

How do you get (mode of transport) to the market?

- Bakkie (special transport arrangement)
- Taxi
- Bicycle
- Truck
- Walking
- Private Car

What time do you generally arrive at the market?

4. Do you generally shop around for suitable prices?

- Yes
- No
- Maybe
- Other _____

If yes, please state why you do so?

5. Are your choices to buy for the day based on previous purchases? For example, do you compare prices on the market floor with prices from the last time you were at the market?

- Yes
- No
- Maybe

6. Do you keep records of all your purchases?

Y	N
---	---

7. Do you have a market agent you go to often?

- Yes
- No
- It depends

If it depends, please elaborate on your answer

On average, how much time do you spent at the market?

8. Does the farm where the fresh produce came from matter?

2. Actor-Focused Questionnaire

I am a _____

- Market agent
- Porter
- Taxi Driver
- Restaurant employee
- JFPM employee
- Other _____

Age

Gender

Female Male

1. Do you think that buyers make the best possible decision from an economic point of view, (rational) *only caring about profit?*

Strongly Disagree

1	2	3	4	5
---	---	---	---	---

 Strongly Agree

2. Do you think buyers have all the necessary information required to buy at the best possible price?

- Yes
- No
- Maybe
- Other _____

—

On which days of the week do you visit the market?

Mon	Tues	Wed	Thu	Fri	Sat
-----	------	-----	-----	-----	-----

Which day of the week is busiest at the market?

Mon	Tues	Wed	Thu	Fri	Sat
-----	------	-----	-----	-----	-----

What time do you generally arrive at the market?

On average, how much time do you spent at the market?

Please elaborate on your answer

3. Do you think buyers have a strategy for making purchases?

- Yes
- No
- I don't know
- Other _____

–

4. Do buyers generally shop around for suitable prices?

- Yes
- No
- Maybe

If yes, please state which buyer is likely to shop around for a better price?

5. Do you think a buyer's decision to buy is related on the buyer's previous experiences?

- Yes
- No
- Maybe

6. Are there buyers who only, or primarily, purchase from a single market agent (favourite)?

- Yes
- No
- It depends

If yes, what percentage of buyers at the JFPM do so?

7. The majority of buyers on the market floor are _____

- Retailer
- Wholesaler
- Hospitality
- Exporter
- Informal Trader
- Household
- Exporter
- Other _____

7.A. What are the main factors that buyers care about? Please fill in the matrix below.

Note: Multiple selections are allowed. Selections may overlap or be similar. For instance, a buyer can be an informal trader and an exporter at the same time.

		Social or Economic Forces							
		Price	Brand Loyalty	Quality of Produce	Market Agent patronage	Trust	Availability Seasonality	Service	Cultivar
Buyer	Retailer								
	Wholesaler								
	Hospitality								
	Informal Trader								

C a t e g o r y	Household								
	Export								
	General								
	Other								

Annexure B – INTERVIEW GUIDE

Semi-Structured In-Depth Interview Guide

The semi-structured in-depth interviews intend to augment findings from the field surveys conducted. Interviews will take place at venues that are convenient for interviewees, and will, with consent of each interviewee, be chronicled for record keeping purposes using note taking and audio recordings.

Participant selection will include all actor types to ensure subjective representation of the market.

The interviews will focus on the personal information, life histories and motives for the decision making of actors at the Johannesburg Fresh Produce Market. The following section further delineates these main areas that will be explored.

Personal Information

Personal information includes key demographics of the respondents such as age, gender, race, role in the market and educational attainment. Gathering of personal information will assist to analyse the findings from the field surveys, especially in understanding the actor-specific responses and the rationale behind the interviewee's answers.

Life Histories

Life histories build on the personal information of the interview. This is achieved through unpacking the history of the respondent by asking questions relating to the experience of the respondent over time such as;

- *Who is the respondent?*
- *Where did the respondent spend his childhood?*
- *Did the respondent finish school?*
- *What were key moments in their lives?*
- *How did they get involved with the JFPM?*

- *What are the main advantages and disadvantages of being involved at the JFPM that they have experienced?*
- *What are the main successes and challenges in their lives and work at the market?*

From the responses of these questions the researcher is able to map out how experiences over the lifetime have shaped the social, cultural and economic perspectives of the respondent over time. In addition, life histories allow for complex and multidimensional analysis of the respondent's responses.

The Motives of Actors at the JFPM

The interviewee will expand further on the rationale behind the responses given in the field survey. The interview will attempt to attain the interviewee's perception of the structure of the market (how it functions), rationality of actors, and social relationships at the market.

Additional Inputs by the Respondent

The researcher will offer the respondent the chance to add any other information that they think is of relevance to the study and ask any questions about the study.

Closing

Annexure C – CONSENT FORM

Research participants informed consent form.



Informed Consent Form, Research Contributor

Dear Potential Research Contributor,

My name is Makhanana Malungane. I am a Master of Social Science in Development Studies student at the University of Pretoria who is trying to understand the social and economic forces that shape the Johannesburg Fresh Produce. I would like to invite you to take part in the research.

Please read the following form carefully it has important information about the research underway (for educational purposes) and the rights you have as a research contributor. Please note that your participation as a research contributor in this research is voluntary. Therefore, **you can refuse to take part in the research, take a break, withdraw, and ask questions at any time** and this will not result in any consequence from the researcher or the institution the research is from.

THESIS INFORMATION

TITLE *"Unlearning and Relearning Food Markets: A study of the economic and social forces that shape the Johannesburg Fresh Produce Market"*

PURPOSE OF THE RESEARCH

My research is for a Master of Social Sciences in Development Studies thesis. It tries to understand the social and economic forces that shape the Johannesburg Fresh Produce Market (hence forth referred to as the market). It will seek to know and explain the roles played by different people at the market such as market agents, buyers, porters, kiosk employees, market employees, and farmers.

ROLE OF RESEARCH CONTRIBUTOR

Your role as a research contributor is to assist by participating in a semi-structured interview which includes the completion of a survey and a possible further interview to supplement the findings from the survey. With your permission the interview will be recorded in both with notes and an audio recording and the contributor's photographs. In addition, where required, the researcher requests

permission to access WhatsApp conversations and travel with the researcher contributor as part of the "ride-along" data collection process. During the ride-along the researcher travels with respondents from their homes to the anchor research area and back and accompanies them in other movements related to their activities at the market.

AUTHORISATION

I have carefully read and understand the conditions for being a research contributor for the above-mentioned thesis. In particular I am aware of the following: I will not get any financial rewards or substitutes for becoming a research contributor; I can opt out of the research at any time during the interview process; and I will get a copy of this consent form.

Given this knowledge, I voluntarily agree to become a research contributor by taking part in the semi-structured interviews described in the consent form.

Date: _____ Signature: _____

For any further enquiries please feel free to contact the principle researcher or supervisor through the contact details below.

**PRINCIPLE
RESEARCHER
SUPERVISOR**

Makhanana Malungane (Masters Candidate) | +27 (0) 81 380 4334 | rwamalungane@gmail.com
Dr. M.C.A. Wegerif | +27 (0) 12 420 2597 | marc.wegerif@up.ac.za

ANNEXURE: FREQUENTLY ASKED QUESTIONS

***What about my day-to-day activities?* | Possible Risks or Discomfort**

Given the high rate of interactions at the market during trading hours, the principle researcher is conscious that the semi-structured interviews could possibly interrupt the research contributor's activities at the market. It is with this in mind, that the principle researcher will be considerate and allow for flexibility when the research contributor engages with other actors at the market.

***How long will the interview take?* | Interview Timeframe**

The interview is expected to take +/- 60 minutes. The interview can be concluded over periods of time in order to lessen disruptions to the research contributor's daily activities and to corroborate observations on the field

***Who owns my inputs?* | Ownership and Documentation of Records**

The data collected from primary research contributors and secondary sources will be used only for educational purposes, including, the writing of the principle researcher master's thesis and will be stored within the University of Pretoria's data repositories. However, access (of either the data or research) may be granted to interested stakeholders that are critically assessed by standards outlined by the University of Pretoria. The thesis will be posted online to be accessible to interested parties, including yourself if you are interested.

Faculty of Humanities
Fakulteit Geesteswetenskappe
Lefapha la Bomotho

What is the benefit of being a research contributor? | Potential Benefits

There is no direct benefit for to the research contributor. The intention is that the research may be of use for those trying to improve the market, however, there is no guarantee.

Do I get paid for being a research contributor? | Financial Rewards

There are no financial rewards. We appreciate your assistance to this study for educational purposes.

What are the rights of a research contributor? | Rights of the Interviewee

The principle researcher pledges to respect, safeguard and anonymize the findings offered by research contributors whilst compiling his/her thesis. For instance, the principle researcher will not unduly share the identity or information of a research contributor on any media platform but will instead use pseudonyms when discussing relevant findings. However, it is important to note that the data collected may be validated by the supervisor of the thesis (you will find his information on page 2 of this consent form) and research assistants and other applicable stakeholders that the University of Pretoria deem fit for research purposes. In addition, inputs made by the research contributor are to be kept in the University of Pretoria's data repositories where there are further fortified through password protection.

Can I opt out of the study even after signing this consent form?

Yes, you can opt out of the research at any time. Remember, being a research contributor is voluntary!

Should you have any questions please direct them to the principle researcher. Whereas in the event of further questions or concerns regarding the research or your rights as a research contributor these can be addressed by the supervisor. Please find their details above.

Annexure D – BYE-LAWS MARKET SQUARE

BYE-LAWS FOR REGULATING PUBLIC SALES BY AUCTION ON THE MARKET SQUARE JOHANNESBURG

- Apart from the morning market no person shall hold or carry on any sales, by auction or otherwise, in any street, square, or other open space within the Municipality, unless he is the holder of a then-current licence for the purpose applicable to that particular spot.
- Vehicles shall leave by 1 pm.
- Stands to be allocated by the Council for livestock west of the Market Buildings between Fraser and Sauer Streets, and for other than livestock east of Market Buildings between Harrison and Loveday Streets.
- Every licence for one year only terminating on 31 December.
- List of stands and plan with fees thereof to be available for inspection at Council Offices and a ballot held to allocate stands
- Council may refuse to grant a licence without assigning any reason.
- No auctioneer shall have the right to hold more than two licences, one on the west side and one on the east.
- Sales can only be held on days specified; no sale until after morning market and must finish by 3.
- No sub-letting or assigning licences.
- The Council may cancel licence if Bye-Laws are breached.

Johannesburg Council Minutes, 17 December 1902, p. 1132 (in Cripps, 2012: 142 -143)

Annexure E - RESPONDENTS

List of respondents mentioned in this dissertation.

Pseudonym	Main role	Age	Gender	Language/ Ethnicity	Race
Alfonso	Market agent	28	Male	Portuguese	White
Andre	Market agent	50	Male	Afrikaans	White
Benedict	Zambian Exporter	40	Male		Black
Cedric	Informal trader	22	Male	Tsonga	Black
Chinedu	Platform trader	37	Male	Igbo	Black
Dineo	Market agent	36	Female	Pedi	Black
Frans	Salesperson	25	Male	Zulu	Black
Gezani	Salesperson	59	Male	Tsonga	Black
Johan	Market agent	47	Male	Afrikaans	White
Johan	Market agent	52	Male	Afrikaans	White
Kevin	Market agent	47	Male	English	White
Melusi	Gate controller	30	Male	Shona	Black
Mpumelelo	Forklift Driver	32	Male	Zulu	Black
Mufaro	Salesperson	34	Male	Shona	Black
Nobuhle	Platform trader	28	Female	Zulu	Black
Ntsetselelo	Wholesaler	38	Female	Tsonga	Black
Nyiko	Platform Trader	66	Male	Tsonga	Black
Pedro	Mozambican Exporter	21	Male	Tsonga	Black
Peter	Market agent	33	Male	English	White
Risimati	Salesperson	26	Male	Tsonga	Black
Robert	Zambian Exporter		Male		Black
Rodrigo	Market agent	62	Male	Portuguese	White
Rosa	Informal Trader	48	Female	Xitsonga	Black
Sarah	Wholesaler	31	Female	Pedi	Black
Simon	Platform Trader	34	Male	Chichewa	Black
Takesure	Salesperson	33	Male	Shona	Black
Tinashe	Salesperson	34	Male	Shona	Black
Tiyiselani	Retailer	50	Female	Zulu	Black
Tshiamo	Security guard	45	Male	Tswana	Black
Uncle Ashton	Informal trader	60+	Male	Afrikaans	Coloured
Wilhelm	Market agent	40	Male	Afrikaans	White
Xiluva	Food vendor	43	Female	Tsonga	Black

Annexure F – ETHICS APPROVAL

Ethics approval



Faculty of Humanities
Fakulteit Geesteswetenskappe
Lefapha la Bomotheo



11 February 2021

Dear Miss M Malungane

Project Title: Unlearning and Relearning Food Markets: A study of the social and economic forces that shape the Johannesburg Fresh Produce Market
Researcher: Miss M Malungane
Supervisor(s): Dr MCA Wegerif
Department: Anthropology and Archaeology
Reference number: 29436852 (HUM027/0720)
Degree: Masters

I have pleasure in informing you that the above application was **approved** by the Research Ethics Committee on 4 February 2021. Data collection may therefore commence.

Please note that this approval is based on the assumption that the research will be carried out along the lines laid out in the proposal. Should the actual research depart significantly from the proposed research, it will be necessary to apply for a new research approval and ethical clearance.

We wish you success with the project.

Sincerely,

Prof Karen Harris
Acting Chair: Research Ethics Committee
Faculty of Humanities
UNIVERSITY OF PRETORIA
e-mail: PGHumanities@up.ac.za

Fakulteit Geesteswetenskappe
Lefapha la Bomotheo

Research Ethics Committee Members: Prof I Pikirayi (Deputy Dean); Prof KL Harris; Mr A Bizos; Dr A-M de Beer; Dr A dos Santos; Ms KT Govender; Andrew; Dr P Gutu; Dr E Johnson; Prof D Maree; Mr A Mohamed; Dr I Noone; Dr C Putergill; Prof D Reyburn; Prof M Soer; Prof E Taljard; Prof V Thebe; Ms B Tsebe; Ms D Mokalapa