

**Social network brokerage prevalent in SMME road freight operations in South
Africa: An exploratory study**

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Abstract

This research study's objective was to discover the structure and behaviours of social network brokerage that is prevalent in the road freight operations that is preventing SMME operators from being sustainable and to expose what participants must do to be included in lucrative broker networks. The research was a deductive qualitative study using a semi-structured interview guide on a sample of twelve road freight operators and stakeholders.

SMME road freight operators are important to the South African government's NDP 2030 economic transformation goals. Road freight operations are one most targeted categories of spend for cost reduction and outsourcing these services is one of the primary economic transformation vehicles adopted by public and private organisations to include previously disadvantaged persons in the economy. SMME road freight operators fail because they are being outcompeted in the market by established operators and brokers.

Applying some principles of social and economic network theories the study exposed the nature of networks that are prevalent in the industry and the behaviours of brokers who drive it. The evidence presented by the participants shows that the structure of the network creates the conditions for brokerage that are exploited by entrepreneurial brokers who operate with low overheads to close structural holes between buyers and sellers for their profit. Furthermore, the study revealed that the road freight operators are applying an outdated and unprofitable business model that is based on asset ownership in a commoditised, late-stage industry with price as the source of competitive advantage. Moreover, the study found that the industry is plagued by rampant corruption with bribery, nepotism and lawlessness thriving. A model was developed to depict the change in the industry to aid road freight operators transform to the new conditions.

Keywords

Social Network Brokerage, Structural Holes, Strength of Weak Ties, Tertius Gaudens, Road Freight Operators, SMMEs

Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

5 March 2024

Contents Page

Chapter: 1. Research Problem Introduction	1
1.1 Background and Purpose	1
1.2 Context of the Study	1
1.3 Problem Statement	3
1.4 Significance of the Study	4
1.5 Delimitations	6
1.6 Definition of Terms	6
1.7 Structure of the Report	7
Chapter: 2. Literature Review	8
2.1 Introduction	8
2.2 Social Network Perspective	8
2.3 Network Structure	10
2.4 Social Capital Perspective	11
2.4.1 The Social Capital Theory	11
2.4.2 The Theory of Social Capital	12
2.4.3 Structural Holes	13
2.4.4 Strength of Weak Ties	16
2.5 Brokerage	20
2.5.1 Introduction	20
2.5.2 Antecedents of Brokerage	22
2.5.3 Structuralist Perspective of Brokerage	23
2.5.4 Process and Behavioural Perspective of Brokerage	25
2.5.5 Brokerage Roles	26
2.5.6 Brokerage Performance Moderators	31
2.5.7 Brokerage Dynamics	32
2.6 South African Road Freight Operation	33
2.7 Conclusion	34
Chapter: 3. Research Questions	35
3.1 Introduction	35
3.2 Research Questions	35
3.3 Conclusion	36
Chapter: 4. Research Methodology	37
4.1 Introduction	37
4.2 Research Design	37
4.3 Population	38
4.4 Unit of Analysis	40
4.5 Sampling Method and Size	40
4.6 Measurement Instrument	41
4.7 Data Collection	43

4.8 Data Analysis	43
4.9 Quality Controls - Validity, Reliability and Bias	44
4.10 Ethical Considerations	46
4.11 Limitations	46
Chapter: 5. Results	47
5.1 Introduction	47
5.2 Participant Description	47
5.3 Results: Research Question One	48
5.3.1 Are There Groups or Connections That Offer Business Opportunities? .	48
5.3.2 Are There Any Informal Brokers You Know?	49
5.3.3 How Do You Obtain New Business?	50
5.3.4 Do You Primarily Rely on A Strong Network for New Business Opportunities?	52
5.3.5 I Have Reliable Access to Information About New Business Opportunities	53
5.3.6 Summary of Findings of Research Question One	53
5.4 Results: Research Question Two	54
5.4.1 What Is the Relationship with the RFOs You Share Business Opportunities?	54
5.4.2 Do You Have a Business Mentor for Guidance and Support?	55
5.4.3 Are you Helping Other Hauliers Like You Access Business?	56
5.4.4 Do You Use Brokers?	58
5.4.5 Summary of Findings of Research Question Two	59
5.5 Results: Research Question Three	59
5.5.1 How do You Show Appreciation to Someone That Arranged Business for You?	60
5.5.2 Does the Person Who Arranged Business Say How They Want To Be Thanked?	61
5.5.3 Have You Had to Pay to Get Business Opportunities?	62
5.5.4 Are You Satisfied with The Network Business Sourcing Approach?	63
5.5.5 Summary of Findings of Research Question Three	65
5.6 Results: Research Question Four	65
5.6.1 Are Sources of Business Close Friends Or Strangers?	65
5.6.2 Do You Belong to Any RFO Organisations or Associations? If So, Why?	66
5.6.3 Are There Any Whatsapp Groups You Belong to For Sharing Opportunities?	67
5.6.4 What Are the Rules Governing These Whatsapp Groups?	68
5.6.5 What Do You Have to Do to Be A Member Of These Groups?	69
5.6.5 Summary of Findings of Research Question Four	71
5.7 Conclusion	71
Chapter: 6. Discussion of Results	74

6.1 Introduction	74
6.2 Discussion of Research Question One.....	74
6.2.1 Network Brokerage Structure and Behaviour Prevalent for SMME RFOs	74
6.2.2 Formality of Brokers Prevalent in the RFO Industry	76
6.2.3 Business Sourcing Processes	78
6.2.4 Optimal Network Strength for Business Sourcing.....	81
6.2.5 Business Sourcing Information Novelty and Reliability	83
6.2.6 Research Question One Discussion Summary	84
6.3 Discussion of Research Question Two.....	84
6.3.1 RFOs New Business Development Partnerships	85
6.3.2 RFOs' Experience with Mentorship	86
6.3.3 RFOs Mentoring of Others	88
6.3.4 RFOs Experiences with Brokers Engagements for Business Development	90
6.3.5 Research Question Two Discussion Summary	93
6.4 Discussion of Research Question Three	94
6.4.1 Gratitude Shown for Assistance with Business Opportunities	95
6.4.2 Soliciting Rents	97
6.4.3 Purchasing Business Opportunities.....	100
6.4.4 Level of Satisfaction with The Network Business Sourcing Approach ..	102
6.4.5 Research Question Three Discussion Summary	103
6.5 Discussion of Research Question Four	105
6.5.1 Strength of Ties Related to Business Opportunities	105
6.5.2 Memberships and Associations for Business Opportunities	107
6.5.3 Use of Social Media Platforms as Social Network Platforms	108
6.5.4 Rules Governing Broker Networks Member Behaviours	109
6.5.5 Conditions to be Met for Inclusion into Broker Networks	110
6.5.6 Research Question Four Discussion Summary	112
6.7 Conclusion	114
Chapter: 7. Conclusion	117
7.1 Introduction	117
7.2 Principal Findings.....	117
7.2.1 Social Network Brokerage Structure	118
7.2.2 Social Network Brokerage Behaviours and Processes.....	119
7.2.3 Instrumentalisation and commoditisation of RFO	121
7.3 Proposed Framework.....	122
7.4 Implications for Stakeholders	125
7.5 Limitations.....	126
7.6 Suggestions for future research	126
7.7 Conclusion	127

Reference List.....	129
Appendix 1: Informed Consent Letter.....	140
Appendix 2: Interview Guide - Adapted from: Mangalmurti (2019)	141
Appendix 3: Consistency Matrix	143
Appendix 4: Atlas.TI Codebook.....	144

Abbreviations and Acronyms

B-BBEE - Broad-Based Black Economic Empowerment

CAPEX - Capital Expenditure

ESD - Enterprise Supplier Development

GDP - Gross Domestic Product

GEM - Global Entrepreneur Monitor Report

HGV - Heavy Good Vehicles

NPD - National Development Plan 2030

OPEX - Operational Expenditure

RFO – Road Freight Operation

RFOs – Road Freight Operators

SMMEs - Small, Medium and Micro Enterprises

USD - United States Dollar

ZAR - South African Rand

List of Figures

Figure 1 Network bridge and cluster structure adapted by Burt et al. (2013) from Burt (2005, p. 14)	14
Figure 2 Tie strength and value creation curve (Kim & Choi, 2018)	19
Figure 3 Moderating effect of dependence asymmetry (Kim & Choi, 2018)	19
Figure 4 Saturation Graph	41
Figure 5 RFO Buyer-Seller Network Transformation Framework (Watts, 2016)	123

List of Tables

Table 1 The South African definition of SMMEs (DSBD, 2023)	39
Table 2 SMME RFO Demographic Information	39

Chapter: 1. Research Problem Introduction

1.1 Background and Purpose

This study explores social network brokerage structures and processes prevalent in the South African road freight operation (RFO) industry that affect the ability of Small, Medium and Micro Enterprises (SMMEs) road freight operators (RFOs) to sustainably access business opportunities. According to the statistician general, South Africa's RFO industry was valued at ZAR 182 billion for the 12 months to November 2023 and grew at three percent a year (Maluleke, 2024) and a key factor to success is access to lucrative supplier-customer networks. The research questions apply some principles of social and economic network theories to establish what social network brokerage structures are in place, what conditions are to be met to assure participation, and what behaviours and rents are required of members to maintain SMME participation in the networks (Jackson, 2014). Another aim of this study is to discover how SMME RFOs can be supported and capacitated to improve participation and build sustainability of their businesses in these networks.

1.2 Context of the Study

SMMEs have been identified as a vehicle for accelerating equitable economic transformation in South Africa and that in the National Development Plan (NDP) 2030 the government emphasised the key role to be played by these businesses to develop industry and create sustainable employment opportunities, drive innovation and competitiveness with the objective of reaching the targeted 90 percent level of job creating in the country by these businesses by 2030 (Bhorat et al., 2018). The strategic objectives of driving job growth through these enterprises is to spearhead the reduction of unemployment and increase the wages of those earning the lowest wages in society.

RFO is an important SMME sector for economic transformation due to relatively high labour density and low barriers to entry. RFOs' activities are the transportation of goods from one location to another by road and the study concentrates on RFO using heavy goods vehicles (HGV) that weigh more than 3.5 tonnes (McKinnon & Pieczyk, 2009).

SMMEs are targeted by the government to contribute to reducing South Africa's high unemployment rate, currently over 30 percent in the third quarter of 2023 (Statistics South Africa, 2023), and reducing inequality (South Africa has a high Gini index score of 63 (Statista, 2021). However, of the 3.2 million active SMMEs in the country 70

percent of entrepreneurs fail before their business turns five years old with only 17 per cent get established and mature (FinMark Trust, 2020). The statistics above indicate that there is no shortage of willing entrepreneurs to establish businesses that fit the government's various economic development plan iterations, however the failure rate is high (FinMark Trust, 2020). In a 2015 study it was discovered that 62.1 percent of South African children were multidimensionally poor (Statistics South Africa, 2020) including food insecurity. From the theory of social change, it is asserted that economic transformation and growth stems from political and social change (Korotayev et al., 2006), but South Africa's democracy has not yet brought the change that was envisaged.

People are inherently social and any study of human behaviour that aims to understand the nature of people requires a grasp of the social nature of human interactions, a fact which has led to the elevation of the importance of social networks in economic studies (Jackson, 2014). Contemporary network literature supports the theory that individual agency is a key addition to structure to obtain beneficial results from network brokerage (Obstfeld et al., 2014; Grosser et al., 2019), whereas the seminal works of Simmel (1950), Granovetter (1973) and Burt (1992) are concerned with the structure of the network. In addition, there is a gap in theory in examining the network processes responsible for producing the network interaction outcomes over an extended period with dynamic conditions (Mguni, 2019).

Ferguson (2017) Refers to Robert Merton's (1968) "the Matthew effect" to demonstrate the impact of networks in society and business with an explanation to state that 'success breeds success' and those who are endowed will grow their endowments over those who are not endowed and will not share their endowment because networks are, contrary to statements of oligopoly network leaders like Mark Zuckerberg (Moran, 2020), fundamentally inegalitarian. A social or economic network consists of nodes and links, the individuals or organisations are nodes and the relationships are links (Goyal, 2022). In South Africa's context, the endowed networks are capital holders and organisations with tenure and long-standing relationships in the market proving the adage "it's not what you know it's who you know" (Nardi, Whittaker & Schwarz, 2000). The alternate networks are of the previously disadvantaged SMME RFOs who seek to gain access to the market and fulfil the economic transformation role envisioned by the democratic government. The framing of these groupings as networks is important to establish, because "...it takes a network to defeat a network." Ferguson (2017, p. 74) which is a neglected aspect of competition, but a critical one for success.

A major contribution to the literature is Burt (1992) who built his seminal work on structural holes upon Simmel's (1950) own seminal work on social networks structures and the conditions that create network brokerage opportunities. Structural holes are the missing links that exist between nodes, depicting a lack of a relationship, that are filled by entrepreneurial intermediaries who broker the connection for their gain.

1.3 Problem Statement

It is structural challenges like the weak connections of the small business sector to the large, modern and formal economy regarding technology and market dynamism asymmetry that impedes the development of small businesses, specifically in developing economies, (Pooe, 2016). SMME RFOs face challenges in securing business from customers due to the highly competitive nature of RFO in a market dominated by larger operators. Access to funding and access to the market are the two stated factors preventing SMME RFQs from sustaining their businesses (FinMark Trust, 2020). However, there is also the prevalence of brokerage in RFO that is suspected to be the biggest cost of sales contributor and highest barrier to market access. Access to capital, whether to invest in assets or to support working capital (WC) is the next threat to the SMME RFOs sustainability with the industry being proliferated with mature, well-resourced and large RFOs who dominate the market through capital-funded pricing. The competitive advantage of the larger operations is primarily the long-standing network relationships formed with customers that create a barrier between the SMME RFOs and the customers.

The network hole principle together with economies of scale afford the larger operators the range to negotiate their costs and vary their pricing according to prevailing competitive conditions in the market and price their smaller competitors out of the market by creating better value for their customers (Kim & Choi, 2018). Apart from the large RFOs, there seem to be skills or social networks that bridge the gap between SMME RFOs and their customers which are not available to all RFQs. These networks can sustain themselves despite the adverse financial and capital challenges that are faced and the institutional voids that remain active beside the various failed interventions of government to offer avenues of funding for small businesses. Enterprise Supplier Development (ESD), as mandated by the Broad-Based Black Economic Empowerment (B-BBEE) Act, (Act No. 53 of 2003) as amended by the B-BBEE Act 46 of 2013, succeeds where businesses fail to sustain themselves by supporting SMMEs through preferential supplier relationships that shield them from normal market forces for the period they are under such conditions.

ESD accounts for 40 percent of company expenditure towards their B-BBEE expenditure which the government has allocated the highest number of procurement spend points to encourage for the development and sustainability of SMMEs (Pooe, 2016). With the number of SMMEs that fail in South Africa being so high, it is hypothesised that the structural hole brokerage that is conducted by ESD in bridging the structural hole is what is missing to meet these objectives. For example, once SMMEs are removed from the ESD programme to compete in the market they often seem to lose access to the brokerage and hence access to the market. It is alleged that the RFOs structural hole is brokered by numerous unscrupulous brokers who require SMMEs to pay for business which makes them unsustainable in working capital and in long term profitability terms. The nature, structure and performance of the networks in place in the RFO brokerage space is the subject of the study.

1.4 Significance of the Study

Academic Significance

Social network brokerage and the role and behaviours of a broker within a network determines the performance outputs of the network. Specifically, market information is a key resource to creating competitive advantage and determining market pricing (Soda & Iorio, 2018). However, the challenge to contemporary scholars is that it is the behaviours of the broker and the processes of brokerage that determine who gains the most value versus the foundational perspective of brokerage which contends that structure and the position of the broker within the network are the key determinants of competitive advantage (Obstfeld et al., 2014). This characteristic of the market in the industry makes the role of brokerage in the transactions indispensable (Halevy et al., 2019).

The study will also expose which brokerage perspectives exist in network brokerage in RFO in South Africa whether it is structural elements that give advantage exclusively to brokers or rather it is the actions and behaviours of the broker. In addition, what type of role brokers play i.e. tertius gaudens or others, that assure advantage flows to them and not to other parties. The study is also aimed at understanding whether there is a causal link, where brokerage is prevalent, between brokerage activity and SMME failure that leads to the unfavourable outcomes like unemployment in the industry.

Significance to the South African Economy

The *raison d'être* for private businesses is to make a profit by meeting customer needs and by creating benefits for their customers and appropriating some of the value created in the form of profit. However, businesses also have the potential to be change agents in society (Cox Edmondson et al., 2008). Therefore, it is critical to understand brokerage in the context of RFOs and whether it is the structure of the network or broker actions that gives competitive advantage because of the importance of SMMEs to achieving economic transformation in South Africa. SMMEs employ 87 percent of the population and contribute 56 percent in GDP (Bhorat et al., 2018). Per capita economic growth of at least seven percent GDP per annum is needed to meet target 8.1 'sustainable economic growth' of the Sustainable Development Goals (SDG) for economic inclusion (United Nations, n.d.). From an ESD perspective, it is important for the relevant transformation and procurement managers to understand the mechanisms driving the market that they aim to influence with their ESD programmes and actions like cost saving tactics they employ that may inadvertently decrease SMME inclusion (Pooe, 2016).

It is easy to downplay the transaction facilitation role of formal and informal brokers as part of network brokerage infrastructure. It leads then that even as unethical as brokerage transactions can be considered and the level of value that they add questioned, commercial transactions cannot occur without it in this industry. This may mean that brokers are a fundamental structure or process of transactions and a necessity if SMMEs are to be successful. There is insufficient comprehension of the kind and extent of the phenomena causing SMME failure. This sentiment is echoed by the call by Cichello et al. (2011) for more research to be done to surface the barriers to SMME sustainability.

Business Significance

Legislated policies to support the inclusion of SMMEs in the private and public sectors are commonplace, but implementation of those policies is much less prevalent (Flynn, 2018). The National Treasury has drafted a policy document titled "An Inclusive Financial Sector for All" is an overarching sector transformation plan to address the issues for SMMEs particularly with a focus on responsible and sustainable access to finance capital (National Treasury, 2023). With South Africa's political and economic history, businesses and entrepreneurs are called to also be vehicles for economic and social transformation. About 70 percent of South Africa's SMMEs fail in the start-up and growth phases due to difficulty in remaining

sustainable (FinMark Trust, 2020). The Global Entrepreneur Monitor report (GEM) emphasised that South Africa has a high start-up business failure rate by global standards (Dikaiakos et al., 2017).

The estimated number of active SMMEs is 3.2 million, run by an estimated 2.6 million entrepreneurs with 46 per cent of them being females, and 37 percent being young people (FinMark Trust, 2020). It is speculated that some of the causes of these failures may be socio-cultural and related to inaccessibility to network brokering opportunities due to cultural reasons which have not been explored extensively (Bushe, 2019). The cause of the failures of the RFOs supported through ESD initiatives that secures them sustainable business at favourable terms for a period, has been the inability to access networks that broker business opportunities post the ESD programme. This makes this network brokerage study critical to understanding how SMMEs can be capacitated to bridge the gaps and access sustainable business opportunities.

1.5 Delimitations

The delimitations of the research were confined to comprehending the social network brokerage and related behaviours prevalent in RFO in SA. The type of RFO that was researched utilised the transport as an input perspective that applies to the transport of goods on different modes (Economides, 1996), specifically bulk haulage of indiscriminate product categories being hauled. The South African regional context may provide important insight as a social network brokerage perspective due to the high level of brokerage activity and alleged corruption, RFO-related institutional voids and deliberate transport infrastructure decay related to RFO that sustains the growth of RFO as preferred mode of goods transportation.

1.6 Definition of Terms

For this study, the following definitions have been adopted to align meaning of the terms:

Networks - Networks are defined as who individuals collaborate with and talk to (Soda et al., 2021).

Network Brokerage - Network brokerage concerns the actions of a network actor, conceptualised as an entrepreneur, occupying a structural position between distances alters brokering access to valuable information and resources for their benefit (Kwon et al., 2020).

Social Capital - Aggregation of resources derived from a connection to a strong network of structured partnerships of similar importance (Bourdieu, 1986).

Structural Hole - A structural hole refers to a missing linkage between two participants in a network which is supported by the understanding that network analysis considers both the presence of nonredundant information and the absence of a connection between the two participants and therefore it is applicable to consider separated participants as part of the same network (Brass et al., 1998).

Actor - An entrepreneur broker network actor (Kwon et al., 2020).

Alter - A disconnected network member with non-redundant information (Kwon et al., 2020).

Social Ties - Connections between individuals or groups that have combined dimensions of time, emotional intensity, intimacy and reciprocity (Granovetter, 1973).

Tertius Gaudens - the third who benefits (Simmel, 1950).

Tertius Iungens - The third who joins (Kent et al., 2016).

Divide et impera - Divide and conquer (Simmel, 1950).

1.7 Structure of the Report

The research report is structured in the following manner. Chapter two provides a review of the literature related to social network theories, brokerage, entrepreneurship and SMMEs that is relevant to the research questions. Chapter three presents the research questions that form the foundations of the study. Chapter four details the methodology and procedures that have been chosen to design, collect and analyse the data used in the empirical research for the report. Chapter five provides a presentation of the results anchored in the research questions stated in chapter three. Chapter six is an analysis and interpretation of the results of the empirical research using the literature discussed in chapter two. Finally, chapter seven summarises the study and provides a reflection on key social, academic and business insights that have been gained from undertaking the study and recommendations for future research related to the study.

Chapter: 2. Literature Review

2.1 Introduction

The chapter reviews and discusses the relevant literature on access to business opportunities through social networks brokerage that dictates the success of SMME RFOs. The following literature review utilised recent, relevant, peer-reviewed and high-quality sources to establish the motivation for the importance of this study and defines what networks are prevalent in the study area and how those networks, together with market conditions, are linked to the success of entrepreneurs and determine the rules that need to be abided by to assure economic success of the businesses. The constructs of social network brokerage, social capital and entrepreneurship have been employed to expose the requirements placed upon participants in South Africa's RFO operations to gain access to lucrative business networks and opportunities.

2.2 Social Network Perspective

Kranton and Minehart (2001) established that trade networks emerge for two major reasons, the first being economic and the second being the result of strategic behaviour. The economic reason is concerned with addressing risk and uncertainty in the market where the sellers and buyers pool their demand to reduce the risks brought on by uncertainty in demand. The strategic reason is for buyers to enhance their market power by spreading their volume to more suppliers.

The social network perspective in this context is subject to ongoing debate among scholars regarding its theoretical importance and relevance. Scholars on networks have mainly examined the benefits of certain network structures at a specific point in time (Soda et al., 2021), and some have argued that network theory is co-opted from other theories that belong to social sciences (Mguni, 2019). For example, other scholars also argue that the social network perspective's methodology can be effectively utilised to study the structure of network relationships, but is insufficient to examine the processes that occur therein (Obstfeld et al., 2014), whereas other studies have concluded that economic behaviour can be determined by incentives that result in benefits from participation in networks (Jackson, 2014).

A network is the sum of the actors, their relationships and their connections (Kent et al., 2016). Social network theory is arguably the subject accountable for the advancement of the majority of network theory development and research during this century in the areas of sociology, business management and even mathematics. For

example, graph theory focuses on mathematical models on how individuals within a context interact in dyadic relationships with each other and what outcomes are derived from those interactions, based on social network theory foundations (Kent et al., 2016).

Burt and Soda (2021) simplify the premise of social network theory and social network analysis by stating the context within which events occur is responsible for determining the way they play out. This is the foundation of the structural perspective of the social network perspective. In the school of thought in support of the validity of the social network perspective, the seminal works of Burt (1992) on structural hole theory and the strength of weak ties by Granovetter (1973) are considered as foundational works for applications of pure network theory (Mguni, 2019).

There are three issues that Kent et al. (2016) find with social network analyses of power that are relevant to RFO networks. The first issue is that power is understood to be derived from regulating the quantity and content of the relationships that are engaged by parties in the network. The second issue is how power is perceived as a means of control of the network information streams. And the final issue is that power is perceived to be derived from closing structural holes and strategically controlling their identity by altering the content of the information shared with different stakeholders in the networks.

The literature on network theory has expanded substantially recently, but there remains uncertain regarding the scope, structure and content of network theory (Goyal, 2022). The construct of networks stems from social sciences and has proliferated in that area, however recently it has enjoyed increasing interest in the management sciences where social networks have seen utility in the comprehension of a range of organisational elements. This study's interest is the utility of networks in growing insights into promotion of self-interest and unethical behaviour where they are specifically useful as a prescriptive and analytical tool (Borgatti & Halgin, 2011).

The foundational critique of social network analysis as a suitable theory to apply to the analysis of social networks by Kent et al. (2016) is that, being developed mainly in the field of business, it instrumentalises people and allows for their treatment as tools or resources and prioritises what value can be derived from them rather than their inherent value as human beings. Kent et al. (2016) add that business vocabulary contributes to the instrumentalisation with euphemisms like 'alters', 'actors' and 'structural holes' dehumanises people and centres business ambitions as a societal priority.

Social network theory focuses on the implications of dynamic network conditions whereas the theory of networks is concerned with the processes that ascertain network structure, construction and design including their antecedents (Brass, 2002). Included are dimensions of participants, leadership and general characteristics of actors involved in the network (Borgatti & Halgin, 2011). Of interest to Brass et al. (1998) in the consideration of networks were the elements that pertain to unethical behaviour having observed that previous studies on network theory had focussed on the individuals and neglected to consider the relationship among participants as a source of corruption. He observed this issue a key omission because unethical behaviour is a societal incident incumbent upon relationships between willing participants in a network with a societal structure.

2.3 Network Structure

A network structure is defined by who individuals collaborate with and talk to (Soda et al., 2021). The content provided by network contacts, the network structure, determines the redundancy of the information and its usefulness. An example is research showing that individuals who have access to non-redundant information through their network structures are more likely to generate creative ideas (Soda et al., 2021). Network structure determines an individual's information heterogeneity by providing greater insights choosing a partner according to their capabilities to improve the probability of success in a partnership undertaking. In network structure, common partners provide a valuable service in vetting and proposing high-calibre partners. Network scholars have identified the two important dimensions of networks which are structure and content, but have not yet been able to delineate the creative benefits of network structure from the effects of content (Soda et al., 2021).

Positional embeddedness in a network structure determines the ability to acquire non-redundant information about partners through their visibility and attractiveness. High positional embeddedness increases distribution centrality among network members which diminishes access to sources of novel information as the network becomes more rigid (Gilsing et al., 2016). Network structure is used by network models of advantage to track information flow paths between individuals or organisations and the models are developed based on two social psychology facts. Firstly, interaction opportunities facilitate group formation, and secondly more communication incurs more influence within groups, both of which speak to embeddedness (Burt et al., 2021). Homophily is the phenomenon of formations along similarities like race, class, religion and other traits in social networks (Ferguson, 2017). Homophily plays a role in the structure and content of networks and manifests

in business relationships and market behaviour as the support of certain races, classes and religions over others. It can be a crucial structural matter to be resolved for SMME RFOs for them to gain access to the market.

2.4 Social Capital Perspective

Bourdieu (1986) defined social capital as an aggregation of resources derived from a connection to a strong network of structured partnerships of similar importance. This definition is pivotal to the concept as it centres attention on the individual accrual of benefits as a reward for participation in the network that is derived for the development and distribution of the rewards that are generated. The benefits that are generated and accrue to the participants in a network are the foundation to the network (Porte, 1998). According to Bourdieu (1986) social capital can be broken down into social relationships and the quality of the resources available to maintain those relationships.

2.4.1 The Social Capital Theory

Social capital theory purports that social capital is derived from the forming of social bonds and that there are patterns of exchange that are inherent in the relationships that characterise the performance of obligated behaviours. These in turn generate and accrue trust and reciprocation of benefits among members of the social network (Liljenberg, 2005). The specificity of the benefit attributes the social capital in the social network context that accrue to the actor is common to Burt's (1992) structural holes argument on the benefits to the broker and extends to support the social network theory position that the intermediary encourages control over the content of the information shared and the discord generated within the temporal network.

Vanhaverbeke et al. (2012) extend the argument on social capital theory by reviewing literature on tie redundancy which seems to contradict Coleman's (1988) theorising that organisations benefit from redundant (cohesive) ties with close partners which do not offer new and novel information. By contrast, Burt (1992) proclaimed, through the structural holes theory, that nonredundant ties are the very sources of advantage through novel information provided by structural holes and any redundant ties, by contrast, are wasteful and bear a cost to maintain and therefore are value degrading. To further challenge the two theories these scholars, consider that for both theories to apply it is assumed that the environmental conditions prevalent in the network, like environmental uncertainty and changes in munificence, are absent.

2.4.2 The Theory of Social Capital

The theory of social capital (Coleman, 1988) reflects the actions and orientation of Tertius lungens who is “the one who joins” and is concerned with long-term relationship building and establishing a stream of sustained value for all parties involved (Kent et al. 2016). Before continuing the discussion of the theory, the theoretical criticism that it assumes a stable structure and stagnant information with a constant value must be acknowledged (Gilsing et al., 2016). The issue with the theory is that networks are dynamic and have a lifespan and as they disintegrate, structural embeddedness is reduced and the behavioural obligations of the network members like cohesion, decline with declining benefits being derived from the network. Loury (1976), who adopted social capital theory in the critique of neoclassical racial income inequality theories that Coleman’s (1988) theory develops upon, argues that focusing on addressing individual-level transformation would not resolve racial inequality. This is relevant for the RFO industry that requires transformation.

Coleman’s (1988) theory relies on network embeddedness and the socially accepted “rents” which are behavioural obligations including network solidarity-induced advantages flowing from intra- or inter-network relationships. To introduce the concept of embeddedness, it is useful to describe relational and structural embeddedness that is prevalent in the theory of social capital. Relational embeddedness describes a long-standing cohesion between two people that is built on deep, shared history and mutual investment in the relationship, while structural embeddedness refers to many shared connections with people (Burt, Kilduff & Tasselli, 2013).

Gilsing et al. (2016) accentuate the perceived flaws in social capital theory by echoing Gulati and Garguilo (1999) who emphasised that the network itself is a core source of advantage by providing the prevailing and future connection that will provide access to exclusive sources of advantage by reducing the cost of sourcing such connections in the future as they become required. The sources of advantage are based on embeddedness in this case as well, but unlike Burt et al. (2013), the two types of embeddedness described typologies are named structural and positional embeddedness (Granovetter, 1992). This definition of structural embeddedness relates to network-level information sourced from indirectly connected parties which would likely provide novel sources of information and further connection to valuable resources. Positional embeddedness is also considered a network-level information source based on inference of capability, information,

resources and access according to the organisation's position within the network structure.

2.4.3 Structural Holes

A structural hole refers to a missing linkage between two participants in a network (Burt, 1992). This is supported by the understanding that network analysis considers both the presence of nonredundant information and the absence of a connection between the two participants and therefore it is applicable to consider separated participants as part of the same network (Brass et al., 1998). Burt's (1992) structural holes theory examining the social structure of competition is a social capital theory that is derived from social network theory (Borgatti & Halgin, 2011). Part of the structural holes theory deals with a variance in the information received and the number of perspectives it provides (Hahl et al., 2016). A participant can have the same number of contacts within a network, but if most of the participants are connected directly to each other this leads to information homogeneity. However, when a participant has connections with disconnected clusters within a network the heterogeneity of the information increases which in turn increases the number of opportunities that can be derived from it (Borgatti & Halgin, 2011). The more heterogeneous the information implies an improved number of brokerage opportunities for market participants.

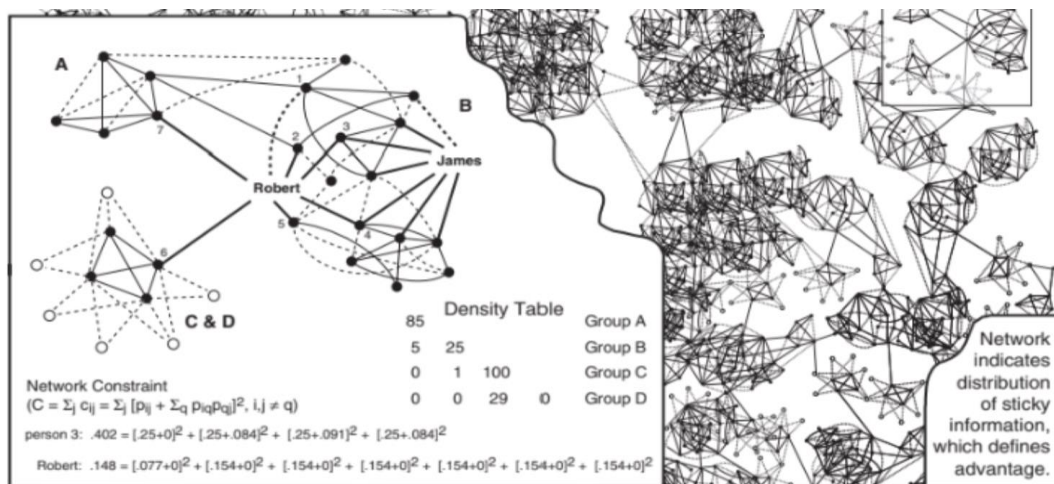
Structural holes are opportunities for advantage to be exploited by suitable intermediaries (Burt et al., 2013). Brokerage is the exploitation of a structural hole by network entrepreneurs responsible for profit by building the connections with a bridging intervention between participants on either side of the hole who need an informational connection (Burt, 1992). Their primary role is the transformation of requirements to appreciable services which carry improved benefits and higher value for the participants involved through the information-refining social mechanism of aggregation (Burt, 2019).

Simmel (1950) developed the foundation of the study of structural holes in his seminal work on *tertius gaudens* where he posited that the role of the tertius actor is to secure their dominant position within a triad and impose their decisions on the network situation. Burt (1992) built onto the idea of the tertius and developed the theory further by adding two aspects of the tertius gaudens strategy which are first exploiting existing structural holes to develop information and control privileges, and the second aspect is the cultivation of structural holes to insert the tertius actor as a dominant part of the network. The Tertius actor can then consolidate their dominant

position by regulating the number of participants in the network context (Salvetat & Géraudel, 2012).

According to proponents of the theory, the state of knowledge within a group has also been observed to create structural holes where external knowledge is localised and transformed into implicit knowledge (Lammers, 2009). This makes it “sticky” and creates holes by inhibiting the flow of other information from external groups and between individuals (Burt et al., 2013). However, this network structuralist theory retains the flaws discussed earlier regarding the dynamism of the network and information. Figure 1 below is a sociogram of a typical network structure that illustrates the stickiness of information and the existence of structural holes and how they are brokered by individuals or organisations.

Figure 1 Network bridge and cluster structure adapted by Burt et al. (2013) from Burt (2005, p. 14)



In figure 1 solid lines reflect strong routine information flow between dots, who are people, and dotted lines that reflect weak information flow between dots. The delineating characteristic of Figure 1 is the depiction of clusters or nodes that are defined by line density that should be noted to be thicker within a node than outside of it to reflect the level of information flow. This is because there are established understandings and norms within a cluster that foster information stickiness while the space between clusters represents a structural hole and a brokerage opportunity even with individuals who are aware of each other, but are not necessarily focussed on the group activities, therefore the structural hole exists due to non-redundant information opportunities. Another way to think about a structural hole is as an insulator that separates different flows of information and keeps them distinct and defines nonredundant sources of information (Burt et al., 2013).

In the consideration of intermediaries in social networks, structural holes theory has been critiqued for its valuing of the positional structure of the individual in a network and the encouragement of the *tertius gaudens* actions (Soda et al., 2021). Those actions dominate the information shared within the network, and the issue that is highlighted with this view as the selfish and sometimes unethical nature of the actor in this instance is to maintain the structural holes due to its value in providing economically valuable information (Salvetat & Géraudel, 2012). The structural holes theory is considered to favour an actor who is playing against network members who do not know what game they are playing, who else is involved and what the potential benefits can be.

As serious as the critique of potential unethical actions on the part of the brokerage agent in structural holes theory, there are proven benefits to the actions in practice. Studies have shown that bankers who develop interpersonal ties with unconnected actors can broker business deals and consistently perform better than their counterparts who have developed less such ties (Quintane & Camabuci, 2016). To continue the ethics argument against structural holes, Kent et al. (2016) affirmed that an organisation or individual gains or can maintain an advantage in a network by hiding relationships with others and therefore maintaining the advantage of the non-redundant information the hidden relationships possess.

The structural holes theory however is held in high esteem by Salancik (1995) for its explicitness in distinguishing that a network position can present both constraints and information benefits which yield distinctness and competitive advantage. The opportunity stems from the homogeneity of information obtained by participants and the disadvantage for network brokers if everyone knows each other. The flow of benefits sets Burt's (1992) theory apart from previous network scholars who had limited themselves to assessing how resources and information flowed to participants or how participants accumulated influence through establishing their position within the network.

A large amount of research in organisation networks is focussed on resolving the debate regarding which the more productive social network structure is between those individuals or organisations that close network holes to ascribe advantage as brokers (Burt, 1992), or those who maintain that tight network closures are more profitable to individuals or organisations through gaining of competitive advantage (Coleman, 1988). Soda et al. (2021) concede that ties bridging structural holes are fragile and defined by declining benefit productivity over time and knowledge and information produced by the ties tend to lose heterogeneity and therefore non-

redundancy and more economically beneficial for the single organisation or individual.

2.4.4 Strength of Weak Ties

In his seminal conceptualisation of the strength of weak ties theory, Granovetter (1973) referred to social ties as having combined dimensions of time, emotional intensity, intimacy and reciprocity. In the revision of the theory ten years later, Granovetter (1983) further asserted the state of weak ties as having low probability of involvement with other ties thereby assuring their utility in assuring diversity of information that flows. The 'strength' of the 'weak' tie is to offer a bridge to new information and the opportunities they present, therefore the less connected that all the different clusters of acquaintances you have access to are, the better the quality of opportunity the information you will receive if the previous assertion about the strength of heterogeneous information is accepted (Giulietti et al., 2018).

Conversely, strong ties increase the homogeneity of information flowing between various clusters and lowers its novelty and the quality of the access and opportunities it presents due to the insulation provided by strong ties. It also prevents ease of access of network representatives to an individual and further lowers their ability to access opportunities (Granovetter, 1983). There is utility in strong ties confined to within the network due to improved cohesion and sharing of information and opportunities, therefore the total profile of a network ultimately determines its overall utility. A network that has an optimal combination of strong and weak ties is the most useful depending on the situational requirements (Granovetter, 1983), however there is an added element of credibility and influence presented by strong ties where there can be other forms of credibility for weak ties such as official titles and distinctiveness (Wang et al., 2018).

Vanhaverbeke et al. (2012) continue the scholarly debate on which type of network tie is more beneficial between strong and weak ties considering by supporting of Burt (1992) that there are costs associated with maintaining ties and excessive ties can introduce network inefficiency and casting away non-productive ties selectively will improve efficiency, therefore strong ties are additionally unproductive. Of course, this view is opposed to Coleman (1998) social capital theory above which posited that cohesiveness is more valuable to organisational benefit than novel information due to the increased social capital that accrues to a member of a dense network as a network closure agent. The validity of each view is to be considered according to the priorities of the desired network outcomes. In studies of social networks in

Philadelphia. It was found that people who experienced economic insecurity and lack of resources were likely to maintain strong (redundant) networks which proves that in certain settings, although strong networks are preferred, they do not contain the same benefits as weak ties which open frequent opportunities for career growth (Granovetter, 1983).

When considering value creation, the same two polarities are considered with some preferring the utility of weak ties in creating new information flow paths which result in novel and innovative ideas and then there are those who prefer strong ties for their utility in exploring the best use of available resources (Wang et al., 2018). It has been observed that weak ties in transactional relationships improve innovation for the customer organisation (Kim & Choi, 2018). Both sides have their utility depending on the network requirements.

Within inter-organisational creative ventures involving a buyer and a supplier, tie strength has been observed to determine resource flows and how the organisations operate (Kim & Choi, 2018). Resource productivity is improved by tie strength as it fosters more frequent and closer interaction between the organisations which promotes refinement of generated ideas and the full utilisation of underexploited resources. On the other hand, weak ties are characterised by infrequent and loose contacts that, although providing access to novel information, do not provide the environment to exploit the opportunities to the full extent due to the arms-length relationship (Granovetter, 1983). Scholars like Levin and Cross (2004) have supported the weak ties perspective while others have supported the strong ties end of the spectrum (Krackhardt, 1992).

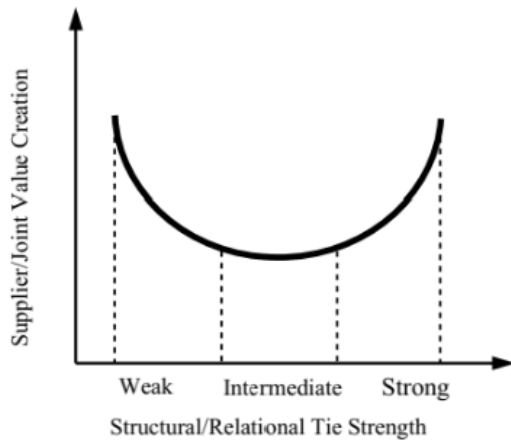
The strength of weak ties theory was interrogated extensively since it was originated by Granovetter. One of the criticisms that was established was that it assumed that weak ties and the local bridges to connect them contained novel opportunities and that they do realise the opportunities that are assumed once they are exploited. The main contention being that the theory assumes that all these types of ties carry valuable information (Granovetter, 1983). 82 percent of ties between selling and buying organisation's analysed by Kim and Choi (2018) have been proven to possess moderate strength, meaning they are neither weak nor strong. Just as weak ties have utility in presenting novel ideas and unique opportunities due to their widespread connections to different clusters, strong ties afford participants access to resources they do not necessarily own. It opens the possibility to explore the utility of "intermediate ties" which are ties with strength somewhere between the two main

poles with the implication of this third category drawing from the utility and weakness of both sides (Kim & Choi, 2018).

From the balance of arguments, it appears that an organisation's success within a network is not determined by choosing a single type of tie over the others. Vanhaverbeke (2012) reintroduces direct and indirect ties to further the discussion of Granovetter's (1992) theory who had defined them as the difference between structural and relational embeddedness. Vanhaverbeke (2012) simplified the definition by characterising direct ties as bridges to a partner firm and its indirect ties, and indirect ties are that firm's direct ties. Reciprocity of benefit from organisations who are indirect ties remains unaddressed as the resources, which are free to the indirect organisation, can give rise to the temptation of free ridership and the indirect organisation not contributing equitably to the venture benefitting it. The attraction of non-redundant ties is the value of the novel information they provide, however redundant ties offer higher governance risk management due to the embeddedness of the relationship (Vanhaverbeke, 2012).

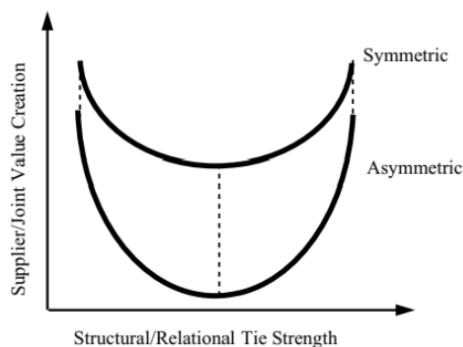
The opposite extents of strength in the strength of weak ties theory have received extensive attention in literature. However, ties which are of intermediate strength have largely been neglected. The studies that have been conducted on intermediate ties have been at individual and collective level with the organisational level not yet covered which is surprising as transactional exchange relationships are assumed to be predominantly at intermediate tie level like competitive bidding which is common in the procurement process Kim and Choi (2018). The suspicion of the omission of intermediate ties in scholarly study is their perceived low utility for value creation through lack of distinctive properties. Kim and Choi (2018) proposed the integration of weak ties with their utility in accessing novel information, and strong ties with their utility in promoting capability and development and investment which both contribute to network advantage through value creation and bring significance to the presence of intermediate ties. Figure 2 below depicts the change in value creation over changing tie strength between the focal organisation and suppliers. The graph shows that as tie strength becomes intermediate, value creation tends to be at its lowest level in buyer supplier relationships.

Figure 2 Tie strength and value creation curve (Kim & Choi, 2018)



Tie strength measures the dyadic bond, whereas dependence asymmetry measures the extent to which differences in resource endowments and ease of access to them skews the value creation curve as it affects relative power in the network (Kim & Choi, 2018). Symmetry in dependency reduces the negative effect of intermediate tie strength on value creation, while the presence of dependence asymmetry exacerbates the effect of intermediate ties on value creation. Dependence asymmetry introduces tension into the network as the firm with more resource and higher power perceives that it is dealing with a partner who provides poor resource reciprocity which leads to underutilisation of all network resources (Kim & Choi, 2018). Resource asymmetry also affects network relationships with strong and weak ties negatively as well, but the moderating effect is specifically effective on intermediate ties (Kim & Choi, 2018).

Figure 3 Moderating effect of dependence asymmetry (Kim & Choi, 2018)



2.5 Brokerage

2.5.1 Introduction

Brokerage is defined as a system of relationships where an agent moderates the transfer of resources, knowledge or communications between disconnected individuals or groups (Grosser et al., 2019). Brokerage is also interesting as a field of study in social network research for its ability to elucidate how network advantages are distributed within social structures which would employ the structuralist view of brokerage (Soda et al., 2018). On the other hand, in an earlier definition of brokerage by Masden (1982) he describes it as a mechanism that intermediaries utilise to facilitate transactions between unconnected parties lacking trust in one another. The lack of trust highlighted in that definition connects to Burt's (1992) condition within structural holes theory of no tie between actors, but it extends to include that the alters under consideration do not necessarily require having no prior interaction. It also emphasises the process of brokerage in addition to the structure (Obstfeld, 2014).

The theory of brokerage stems from Simmel's (1950) discussion of a triad. Extensive research has been conducted to support the advantage of centering oneself as a broker in an open triad which endows the broker with control over valuable information, resources and referral power in connecting disconnected alters for your benefit (Soda et al., 2018). The study of triads, which are a group of three actors who are defined by existing or imminent conflict between the two to the benefit of the remaining one, was pioneered by Simmel (1950) in the discussion of diverse configurations of social engagements. In their version of the triad discussion, the actor that takes advantage of the conflict acted as an imperialist and the benefit that was incurred by the actor was derived from to the conflict between the two alters through direct action of the third actor to gain a dominant position in the triad in what is termed *divide et impera* 'divide and rule' (Xypolia, 2016).

Triads are formed by the introduction of a third actor to a dyad which permanently alters the prevailing contact between two actors by a transitory process resulting in conciliation and/or abandonment of the prior relationship (Liljenberg, 2005). In the substantiation and extension of his seminal development of triads in social network brokerage, Simmel (1950) expands on the operations of triads with the focal actor in the network taking a specific role. They can act as; firstly, the invisible third and the nonpartisan mediator role connector or facilitator (mediator), secondly, the arbitrator role who enthusiastically frames and interferes with the conflict and its outcomes,

and thirdly the *Tertius gaudens* role who is a broker who draws benefit from facilitating and cultivating continuous discord between the other two actors.

The behaviours described above occur in open triads and quite different behaviours emerge from closed triads that connect all actors in a closed network (Xypolia, 2016). This results in the positional advantage of self-serving benefits for the broker disappearing and arguably resulting in a network scenario where any action within the closed network directed at any of the other triad members could be deemed as brokerage. This makes the scenario incongruent to the brokerage definitions that apply to open triads but could be more congruent to the actions of a third-party influencer (Kwon et al., 2020).

The core of brokerage literature generally subscribes to a niche definition of brokerage that centres the open triad network with two alters who are not connected to each other and it has been concerned with brokerage structure and the qualities of outcomes in open versus closed networks (Burt, 1992). However more recent work has introduced brokerage process - behaviour of the broker - which is frequently incorporated into the argument for open versus closed network structures which is supported by Burt's (1997; 2004) empirical research results on the structural hole separating of non-redundant alters being a source of benefits in a triadic open network structure (Obstfeld et al., 2014). The debate is increasingly important for organisations because whether bridging structural holes accrues superior benefits (Burt, 1992), or whether more benefit accrues from maintaining closer network relationships with a chosen few partners, benefits determine which relationships organisations should be invested in for competitive advantage (Lammers et al., 2009). The structuralist viewpoint of brokerage diminishes the consideration of the function of brokers in network theory (Mguni, 2019).

The remainder of the brokerage literature review is structured to follow the integrative framework for network brokerage that was developed by Kwon et al. (2020) to guide it and ensure that all aspects of the brokerage construct are considered. The framework utilises six categories to structure the review starting with firstly, antecedents which are the actor characteristics that lead to brokerage. Secondly, the structuralist perspective of brokerage which foundational theory. Thirdly, the behavioural and process perspectives of brokerage which is emerging and contemporary. Fourthly, the outcomes of brokerage which covers the benefits and the reason for engagement and is discussed as outcomes of each brokerage behaviour for efficiency. Fifthly, the moderators to brokerage which set parameters,

and finally, the dynamics of brokerage covering how brokerage actions change as network change which also part of the current development of the theory.

2.5.2 Antecedents of Brokerage

The discussion on brokerage antecedents reveals a general centering of literature on the actions of an actor and the environmental context as important contingencies which is supported by Burt (2012) who established that actors maintain brokerage roles in multiple networks and that strategic positions were occupied because of the actor's agency, specifically characteristics that make actors adaptive and helps them maintain those brokerage positions like self-monitoring. Empathetic individuals with long tenure in organisations generally exhibit high self-monitoring behaviour and benefit from this personality trait through brokerage (Kwon et al., 2020).

As complexity increases in the market it becomes more important for external structural holes to be exploited for strategic benefit of the organisation therefore a constrained internal environment forces brokers to look for opportunities outside the organisation to fill structural holes and provide competitive advantage to the organisation (Kwon et al., 2020). Liljenberg (2005) positions two perspectives of market competition as antecedents of brokerage, the first is a surplus of sellers and overall competition is incremental and therefore, according to exchange theory parameters of power dependence, sellers experience a power imbalance due to their over reliance on a few viable buyers. The second perspective is driven by the principles of scarcity and that a scarce market is dominated by sellers and a surplus market is dominated by buyers, and therefore buyers in a scarce market cannot be defined as having discretionary choice and will buy what is available which shapes the market and brokerage positions and vice versa for surplus markets.

Trust and reputation, however, are important individual antecedents of a broker in dense clusters in closed networks, and those elements are provided by the nature of dense clusters and cannot be accrued in any other way (Burt et al., 2013). Embeddedness then is a critical determinant factor in the success of network brokerage outcomes due to trust and higher levels of embeddedness which allows the distribution of complex information and innovations. There is embedded brokerage which is when an actor brokers information intra long-term network, and unembedded brokerage where an actor brokers information outside of their own network and circle of trust (Quintane & Camabuci, 2016). Repeated processes of brokerage are improved with higher embeddedness and being known as trustworthy which elevates the broker's social standing (Burt et al., 2013). However, restricting

the expansion of a network to preserve the networks ability to produce trust, collective identity and shared knowledge provides high enough benefits for it to be allowed by the network although incongruent to open network information novelty value principles (Lammers et al., 2009).

Unembeddedness, on the other hand, is a counter to the description of embeddedness by Kerr and Coviello (2020) which is based on Coleman's (1988) seminal work on network closure. Coleman (1988) posited that the level embeddedness determines the level of novel information that a broker has access to and their potential to produce innovative outcomes. It is defined as a brokerage outside one's network or long-term ties in an organisational network setting and is characterised as being fleeting in nature and shallow in content (Quintane & Camabuci, 2016). Unembeddedness is an important consideration in brokerage theory because of the inclination of brokers to embrace unembedded engagements, behaving as entrepreneurial outsiders, where they use their inherent individual characteristics to close structural holes and gain novel information from those engagements. This is an orientation that stands in contrast to the obedient insider who is an actor who only engages with their dense closed network (Quintane & Camabuci, 2016).

The entrepreneurial outsider is an individual who has a propensity for learning and gaining experience and adapts at sensing appropriate and expected behaviours for engagement settings. This allows them to be quickly accepted as network members in many new networks and gain trust and access to network member benefits, however the tension remains between insider benefits for cooperation and the entrepreneurial outside incentives for short term gains (Posner et al., 2010).

2.5.3 Structuralist Perspective of Brokerage

Network research underscores the importance of connecting actors distanced by structural holes to gain benefit through information brokerage since these connections provide novel information as proven by the outcomes of Burt's (2007) study that found that actors who developed ties with unconnected alters typically outperformed their differently connected counterparts due to the privileged information to which they had access (Quintane & Camabuci, 2016). The debate on the validity of the structure of networks alone being the prerequisite for beneficial brokerage outcomes is controversial with proponents of the theory conducting studies to support it but new literature emerging to support the theory that individual

agency is a key addition to structure to obtain beneficial results from brokerage (Grosser et al., 2019).

The brokerage structure is called many names; an open triad (Simmel, 1950), a brokerage tie (Granovetter, 1973), and a network bridge (Granovetter, 1973), a structural hole (Burt, 1992), an open structure (Burt, 1992), a lack of closure (Coleman, 1988), a lack of network constraint (Burt, 1992). Although the seminal study on tie strength by Granovetter (1973) has a theoretical foundation of network structure it still argued for a process perspective to brokerage. It was supported by the claim that network linkages are a product of weak ties conversely to strong ties are prone to result in network closure due to the interconnectedness process and natural network equilibrium (Kwon et al., 2020). The priority of the structural perspective of brokerage is due to the strength of the network position relative to the alters argument. This is a structural condition and the one that provides confidential control of the information and garners exclusive benefit to the broker and is foundational and therefore a higher priority to the process and behaviour aspects (Grosser et al., 2019).

Five distinct network brokerage structuralist typologies have been identified and are typically used to describe brokerage roles based on political network formations (Gould & Fernandez, 1989). **Coordinator** - the conditions of this typology is that the groups may contain all three actors in closed networks, and therefore the brokerage context is completely internal making the coordinator a 'local broker'. **Itinerant Broker** - also within group brokerage, but with only one member belonging only to the group and the other two members belonging to another subgroup making the intermediary an outsider. **Gatekeepers** - a decision maker for their part of the network and regulates who gains what access and at what time to valuable information resources. **Representatives** - acts on behalf of other network members to establish contact as a delegated party to relay information and resources. **Liaison** - an in-between flow broker and slots in between the initiator and receiver of the brokerage effort as conduit of information without having prior allegiance or vested interest in the brokerage outcomes.

The structuralist perspective of brokerage has three noteworthy shortcomings besides. Firstly, the perspective fails to regard temporal brokerage opportunities. Secondly, establishing bonds between alters is not considered, and thirdly there are no distinctions made between recurring exchange engagements and unconventional structural configurations. The classical framework of brokerage is criticised for premising brokerage as merely an instrument to enable transfer of valuable items in

open network (Mguni, 2019). Another criticism of this perspective is that it focuses on the brokers direct ties to other network members and disregards networks that are tied to these members which creates ties by extension that should be considered as bridging structural holes as well (Kwon et al., 2020). The search for empirical support of the benefit of the second-hand structure conferring benefits to the network and the broker has not proven the hypothesis, but evidence has emerged that unique compositions of second-hand structure providing collaboration and novel information, for example when the alters are also brokers (Kwon et al., 2020).

There are recent meta-analytical study results and conceptual reviews that affirm that brokerage is routinely accepted as a structural construct above all others (Grosser et al., 2019). Another major critique of the structuralist perspective of brokerage is that it assumes a static network at a point in time and a compelling argument for this observation is that the concept fails to expose certain features of brokerage under static conditions like dynamic properties of brokerage (Mguni, 2019). It is posited that although the structure contains the opportunities and resources, it does not dictate the brokerage process and behaviours with the broker having many options to choose to engage the network thereby making their behaviour and process key determinants of brokerage outcomes (Grosser et al., 2019).

The network structuralist perspective of brokerage offers a unique and privileged perspective as the main advantage with its exclusive access to information related to opportunities that would otherwise remain hidden and unexploited (Burt & Soda, 2021). Individual benefits are accrued by a well-positioned broker, which speaks to structure, regardless of the actions because the position rewards the broker with access to alter's resources that enhance the actor's likelihood for exclusive extraction of benefit (Soda et al., 2018). The structuralist perspective is a valid foundation of brokerage theory and remains a rich field of study and debate and is specifically congruent to open network brokerage situations.

2.5.4 Process and Behavioural Perspective of Brokerage

This section gives the behaviourist perspective of brokerage which contrasts with the structuralist perspective above, led by the seminal work of Burt's (1992) structural holes theory with the process and behaviourist perspective led by (Obstfeld et al., 2014). The benefits of holding brokerage positions are proved, however the process and behaviourist literature is still growing (Quintane & Camabuci, 2016). Even though the opportunities provided by the nature of the network structural ties are required

for brokerage to materialise, those opportunities do not inevitably prompt brokerage behaviour as networks are inert and do not act autonomously. The action of brokerage requires situational awareness, analysis, processing, entrepreneurial opportunism to process information and take advantage of a brokerage opportunity (Kwon et al., 2020).

The emerging stream of research among network scholars is that behaviour is an important additional determinant to network brokerage outcomes and that there is still a need for the broker to act in a manner of brokerage for any benefits to begin to accrue (Grosser et al., 2019). As an extension to the prior network brokerage behaviour (Baker & Obstfeld, 1999), four typologies were developed that incorporate brokerage strategies Obstfeld (2005). Firstly, coordination effort between distanced collaborators. Secondly, exploitation of the separation of the collaborators (*tertius gaudens*). Thirdly, facilitation of introduction characterised by brevity of engagement (*brief iungens*). Finally, ongoing facilitation post introduction and maintaining coordination role (*sustained iungens*).

Although Obstfeld et al. (2014) concede that social network structure influences the brokerage process they counter with “but does not define it” which lead them to design a framework that shifts brokerage towards a social process that occurs within the network context. The central notion of these scholars is that the brokerage process influences brokerage outcomes with increasing brokerage dynamics and context complexity more than network structure, because structural benefits are increasingly difficult to sustain and control in dynamic entrepreneurial and cultural networks (Kwon et al., 2020).

2.5.5 Brokerage Roles

Brokerage roles fit neatly under the behavioural perspective in social network brokerage theory because they consider individual agency (Grosser et al., 2019). Burt et al. (2013) presented two discoveries that have brought the individual agency perspective in open networks into sharp focus. The first is the lack of advantage transfusion between two adjacent networks through connections with other brokers which has exposed that the advantage accruing to a broker is due only to network diversity and not to their connections of the networks. This means that the advantage is not the access to information, but rather the processing and actions upon the accessed information. The second discovery is that performance differs considerably depending on who the broker is as individual actors often obtain benefits below their social network potential, meaning that hardly any broker ever exploits the full benefit

of their potential and brokers exploit different parts of the resources that their network provides.

One of the most profitable instruments held by a broker is the information monopoly over their identity because the knowledge results in alters being wise to the rents of engaging with a broker like paying commissions or losing competitive advantage to them (Kent et al., 2016). The broker will lose influence or financial benefit due to the withdrawal of resources by the wise alters who come to realise that the broker is acting for self-interest (Burt, 1992). However, if the identity of the broker is kept confidential they are free to migrate through different networks, collecting novel information and resources, transferring them to adjacent networks and benefiting from the outcomes without sharing any benefits with the alters (Kwon et al., 2020).

The next sections discuss the various broker role profiles that are prevalent in social network brokerage literature to offer some insights into each and their utility for various types of network structure, their flaws, benefits and optimal strategies. Two of the role profiles include '*tertius*' in their description. In Simmelian social network theory (1950) where a triad is used to represent the structure of the network, a *tertius* means a 'third' which is in this case what transforms a dyad into a triad and introduces a complicated level of competition which centres the customer as the indirect source of conflict due to their actions. *Tertius* can present a passive or active characteristic towards the alters (Liljenberg, 2005).

Many of the brokerage processes that are discussed in brokerage theory are only possible with the introduction of an actor to a dyad of alters, irrevocably changing the structure of the network, and a dyad will die with the terminating of the relationship by one member of the group (Faist, 2014). The upcoming sections will introduce the prominent *tertius iungens* and *tertius gaudens (separans)* roles. Due to a similarity to *tertius gaudens*, but being freed from the confines of a triadic structure and nature of open and closed networks, the divisive brokerage role of *divide et impera* and review the network and personal benefits of this brokerage role is discussed distinctly (Faist, 2014).

Tertius iungens

Tertius iungens describes a non-participatory member fostering interaction between two previously unconnected or conflicting parties. The term 'iungo' means join, connect or reunite and the term *iungens* implies making connections (Kent et al., 2016). There are two kinds of non-participatory thirds; one connects two parties and does not participate in the engagement or exchange as a mediator, the other one

makes obligatory decisions on behalf of the two as an arbitrator (Faist, 2014). Some contemporary scholars argue that iungens orientation is theoretically different to mediation orientation because it dictates that the broker coordinates interaction through direct facilitation to resolve the disconnect whereas mediation can be passive and only provide the platform for reconciliation (Grosser et al., 2019). Although this section discusses the process and behavioural aspects of brokerage and not the structure, it is important to establish that iungens is more effective in triad environments with high tie strength that allows them to promote equality of outcome for the network (Obstfeld et al., 2014).

In action, the iungens role identifies conflict and complexity brewing among network partners, is orientated towards teamwork and coordinated effort, is more ethical towards all interested parties, is consistent with the values of joint creation, is humane, and shares power for the greater good of the partnerships (Kent et al., 2016). The tertius iungens affinity for strong ties improves the emotional intensity of relationships, increases reciprocity, raises trust, fosters collaboration, improves innovation outputs, and sweats the resources sunk into network relationships (Lammers et al., 2009). As a member of a closed network, the iungens draws additional advantages from the knowledge transfer that is inherent in long term relationships due to the high level of trust which comforts organisations to feel safe to share proprietary organisational resources that would otherwise be costly to develop internally (Lammers et al., 2009).

Tertius iungens is not based on a dominant position, but is designed to possess the skills to link distanced actors in facilitation of the pursuit to achieve a planned objective for mutual benefit, but without flouting anti-competitive rules (Salvetat & Géraudel, 2012). This brokerage orientation endeavours to network closure and sovereignty by regulating the number of participants that are permitted to join the network and by doing so strives to increase the competitive advantage of the network versus competitors (Lammers et al., 2009). The utility of the iungens brokerage perspective is that it is more adept at obtaining higher performance outcomes in more intricate and dynamic network settings (Obstfeld et al., 2014).

Tertius Gaudens

Tertius Gaudens is 'the third who benefits' in Latin which is applied by Burt (1992) to the brokerage action where the broker benefits above the alters. The broker assembles the triad, creating the competitive conditions and benefit opportunities that favour them through filling the structural hole and connecting previously

distanced alters (Kent et al., 2016). A *tertius gaudens* is a unitary actor who gains control over valuable resources in a network and harvests benefits passively or by sowing discord within the network. A unitary actor is not necessarily a single individual human in this definition, it can be an organisation or formation that has cohesively aligned on a singular posture and behaviour (Posner et al., 2010). Entrepreneurship is central to the behavioural actions of a *tertius gaudens* because it is the actions of opportunity spotting, network development, network governance and management, and benefit harvesting that define the behaviour of a *tertius gaudens* consistent with the actions of entrepreneurs (Soda et al., 2018).

There are two predominant micro foundations of *tertius gaudens* behaviours that concern the level of activity in their formations. The first is an active *tertius* who harvests benefit through deliberate action to sow discord and pit the alters against each other for personal gain, and secondly the passive *tertius* who exposes themselves to the discord between the two alters and benefits by their strategic positioning to accrue the advantages produced by the tension in the network (Liljenberg, 2005). The passive *tertius gaudens* is 'the third who enjoys' which speaks to the behavioural orientation of the broker (Simmel, 1950). Both typologies of *tertius gaudens* micro foundations seek to sustain and exploit the structural holes and maintain the brokerage situation and their position within it by using privileged information to optimise personal power and financial benefit over the network benefits (Lammers et al., 2009).

The network structure, by its nature, encourages *tertius gaudens* behaviour through granting benefit to a passive actor and unintentionally establishing them as a *tertius gaudens* (Salvetat & Géraudel, 2012). The behaviour part of the *tertius gaudens* is in expanding the size of the network due to their logic that new partners bring new complementary resources and sources of valuable, novel information and addresses the existential network issue of the instability of structural holes in open triads by expansion assuring optimal exploitation of opportunities and incidentally benefiting the network (Lammers et al., 2009). The action of the *tertius gaudens* is to maintain oversupply in the market to prevent power shifting to the suppliers and to continue to maintain discord between suppliers by making them aware of competitors as part of entrepreneurial opportunity (Liljenberg, 2005).

Entrepreneurial autonomy is important for the timely exploitation of opportunities because most *gaudens* brokerage opportunities are temporal, diminish with the age of the network, and costly so they must be exploited before the relationship matures and decays the novelty of the resources (Quintane & Camabuci, 2016). Codes of

conduct are set to establish operating boundaries within an industry and are generally for the greater good. However, *tertius gaudens* boundary spanning and entrepreneurial self-interest orientation is seen to flout those stated norms because the broker likely does not belong to the industry and therefore may not necessarily be aware or even value the standards which may result in their actions being regarded as unethical and exploitative (Kent et al., 2016).

Tertius gaudens orientation is contextually argued to be unethical because of how it uses power, concealment and misdirection to gain advantage for the broker (Iorio, 2022). These are acceptable behaviours in private business transactions, but may be perceived as unethical in others like in public relations where it is applied to manipulate the perceptions of the public regarding a topic concerning the central actor (Kent et al., 2016). “Power is manipulation” (Kent et al., 2016, p.97) is the overarching criticism of the social network analysis and structuralist perspective of brokerage by contemporary scholars who aggressively condemn the power holding nature of the structuralist *tertius* brokerage behaviour for its unchecked autonomy over the version of the truth and the nature of the transaction alters are engaged in.

In social network analysis, advantage is a condition of brokerage information depth, arbitrage, and timing and the advantage is demonstrated as higher financial gain, recognition, and a higher propensity to forward good ideas (Burt et al., 2013). The action of power accrual in a network is dependent on the ability to reconfigure the network to optimise the conditions for maximum gain for the broker over time, therefore they need to tinker with the configuration often to maintain a power position (Soda et al., 2021). Another source of advantage is the absence of alternative ties in the market (Obstfeld et al., 2014), and of which actions to source suitable partners contributes to higher market volatility (Burt et al., 2013). This increases tension and enhances the chances for the *tertius* to effectively control the actions within the network.

Divide et Impera

It is useful to set a distinction between *tertius gaudens* and *divide et impera* through Posner et al.’s (2010) historic illustration to both explain the need for a literature review of both and to set a foundation for defining *divide et impera* as a behaviour distinct of the two *tertius* orientations: during the Germanic wars in the time of Roman Emperor Tiberius, two strategies were utilised to defeat the Germans. In the first phase, commander Germanicus sowed discord among the governing structures of

the Germanic tribes by siding with some tribal leaders against others. In the second phase the Emperor pulled his armies off the front line to remove the object of the German's fleeting unity so internal discord could set in. In the first phase, the Emperor and his empire exhibited *divide et impera* "divide and conquer" orientation, and then in the second phase, employed the passive *tertius gaudens* role which spontaneously sparked internal conflict.

The tag of *divide et impera* is commonly used in social network analysis, but is scarcely fully understood or applied accurately. Although the origins of the phrase are opaque, it has become commonly used in ordinary life and scholarly literature. In economic theory, *divide et impera* is applied to an actor who coordinates discord among otherwise connected alters for their express and selfish benefit by applying favour or discrimination deliberately heterogeneously to create a privileged alter versus a marginalised altar. Two conditions satisfy the test for *divide et impera* orientation; firstly, bargaining by a unitary actor, and secondly, deliberate exploitation of disunity (Posner et al., 2010). In his early work on social network brokerage, Simmel (1950) introduced the *divide et impera monica* as the third in his triumvirate of brokerage orientations he based his theory on which included arbitrator and *tertius gaudens*.

The actions of a *divide et impera* orientated broker include nefarious acts like the paying of bribes, unequal imposition of penalties with the first mover advantage of the orientation meaning they set the rules of engagement and will not share them with their victims and their actions can also include openly approaching alters in sequence with offers of partnership of differential value and thereby sowing discord and creating inequality (Posner, 2010). Vertical and horizontal divisions are randomly created by this orientation to pit people against each other by making distinctions based on language, religion, ethnicity and even skin colour with the vertical separation is typically on religion and a horizontal for example, along class lines (Xypolia, 2016). The *divide et impera* orientation rules by subverting the otherwise more powerful forces of unity (Faist, 2014).

2.5.6 Brokerage Performance Moderators

A moderating factor "influences the nature (e.g., magnitude and/or direction) of the effect of an antecedent on an outcome" (Aguinis et al., 2017). The literature review on network brokerage revealed many presumably disassociated moderators therefore Kwon et al. (2020) embarked on analysis to discover the conceptual underpinnings of each moderator and discovered two distinctly themes, one being

that heterogeneous resources accrued from access to different networks need to be handled appropriately, and the second being that trust needs to be developed and maintained between actors and alters. Trust is an exceptionally important moderator where social resources need to be transferred due to the internalised value of the resources, requiring a high level of trust, therefore strong bonds, to be released to an actor. Organisational endowments and the interest of employees in an organisation play an especially important role in moderating brokerage performance because they, along with organisational strategy and stated values, largely determine where the organisation draws the attention of its employees to. This determines the priority of the employees and demands that attention is paid to those organisational priorities (Soda et al., 2018).

The nature of the information transferred can also be an important moderating factor with heterogeneity, complexity and asymmetry all being observed to affect the brokerage outcome of a brokerage transaction as some scholars found that an increase in information heterogeneity requires increased broker effectiveness to gain benefits from brokerage, but other studies have not found a significant correlation between complexity and brokerage outcomes (Kwon et al., 2020). The moderation discussion is mostly based on the structuralist perspective, but there are some non-structuralist (behavioural) moderators that have been observed that include number of subordinates, job seniority, content of the information available, years of tenure in the same role, culture in all forms, intellectual capability and personal characteristics. These all have a moderating effect on behavioural perspective brokerage performance (Soda et al., 2018).

2.5.7 Brokerage Dynamics

A proof of the dynamism of brokerage is the decay of brokerage situations over time which changes the potential value that can be derived from the network and network reciprocity diminishes the value of the network over time (Liljenberg, 2005). Research has shown that past ties are an effective predictor of future ties in the same manner as network content in the past is a good predictor for future network content which speaks to the dynamics of the brokerage context (Kwon et al., 2020).

In his study of dynamic brokerage, Mguni (2019) states that brokerage is informed by social relationships which are dynamic as opposed to the structuralist perspective of brokerage which presumes social network stability. Quintane and Camabuci (2016) made a distinction between structuralist perspective brokerage and the behavioural dynamic perspective of brokerage. The first is that brokerage needs to

be understood to be distinct as a performance outcome of a well-manicured network structure with long relationships, the second is an output of information exchange processes and entrepreneurial behaviour.

Micro foundations are actor level factors that drive network activity at all levels and they combine to propel the evolution and performance of the network to include the actions and behaviours of an individual to cover consideration such as moderators fully. The micro foundations sub perspective supports the incorporation of the evolution of networks into the core theory of brokerage to explain the processes of brokerage by studying the contributing elements of individual agency, moderators, structure and network context (Mguni, 2019).

2.6 South African Road Freight Operations

A transportation network is defined as a system of interlocking instruments and systems that combine to form a product or service, where it has either been treated as an input in transportation of goods, or as a service in transportation of people (Yevdokimov, 2001). RFO transport is a high SMME growth potential sector with low barriers to entry and complexity of operations, but it is dominated by large RFOs and brokers who have inserted themselves as the main market for this booming sector, especially in minerals and mining (Bhorat et al., 2018). It is not beneficial to the employment prospect of the country then that the few RFO SMMEs cannot access the market due to broker actions and corruption in the form of informal network hole brokerage (Bushe, 2019).

Economides (1996) includes transportation as a subject matter for analysis along with communication, information and railroad networks in his seminal paper on the economics of networks. For this study this means that it is possible to treat transportation as part of the network construct that flows like communication and as a business context for the study. Economists have labelled the concept of transport under three categories. Transport networks are considered as having infrastructure, related costs and spatial objects, however most economists have traditionally treated transportation as a market with microeconomic dimensions containing homogenous goods and services, buyers and sellers, and private ownership (Yevdokimov, 2001).

The important parts of RFO expenses to each interested party are firstly, operational expenditure for the operator. Secondly, capital expenditure for the owner, and finally, the inclusive direct and indirect expenses borne by the customer (Izadi et al., 2020). There are generally two types of expenses in RFO; variable vehicle-based operational expenses and fixed and capital expenses (Trego & Murray, 2010). Profit

is extracted from all the different expenses and although scholars may employ different cost models, they all converge on there being vehicle-related costs and business development and sustainability costs.

Economides (1996) considered brokerage to be part of the second set of externalities that emerged as part of the various vertically associated services within a vertically aligned market. The first set of externalities were the act of exchange of goods and services which reinforces the suspicion that the broker is external to the network and inserts itself in the service of closing a structural hole and should not be necessary to the network function except if there is a weak tie or a broken connection and their function is to form a bridge of information flow regarding the commercial transaction.

2.7 Conclusion

This chapter presented the results of a literature review on social network brokerage. It has discussed cascades of theory from how social networks are formed, managed and exploited and the role of individuals and organisations within those networks in creating competitive advantage. The chapter has explored the foundational structuralist perspective and the contemporary behaviourist perspectives on social networks brokerage along with the benefits and ethical challenges of brokerage between the two perspectives. The chapter then further explored the behaviourist perspective of social network brokerage through the integrated framework for network brokerage (Kwon et al., 2020) to present a review of brokerage processes covering antecedents, structure, behaviours, benefits, outcomes, and brokerage dynamics. Numerous contradictions in opinion and theory have surfaced with the literature review, covering ongoing scholarly debate between the structuralist and behaviourist brokerage perspectives and their relative merits as instruments to gain sustainable competitive advantage. The contradictions present an exciting opportunity for further study in the field of social network brokerage. The chapter concludes with a review of the importance of entrepreneurship to the South African economy and the critical importance of the success of SMMEs that is required as a vehicle for economic transformation and to target poverty eradication. This conclusion leads to a presentation of chapter three which contains research questions based on the literature review.

Chapter: 3. Research Questions

3.1 Introduction

This chapter sets out the research questions for the study. The questions have been formulated after an extensive literature review that was presented in the previous chapter which covered social network theories, social network brokerage, and the role of SMMEs in transforming the South African economy through entrepreneurship. The questions have been formulated to gain deep insight into the structure of networks that are prevalent in the study area and how they operate, the role of brokers and the expectation on SMMEs who want to participate in them, and how they affect the sustainability of those businesses.

3.2 Research Questions

Research Question One: What form is the social network brokerage structure for SMME RFOs?

This question seeks to understand the structural form of the social network brokerage that is prevalent in RFO. The aim of the question was to understand how SMME RFOs gain access to business opportunities in the daily course of operations. Burt (1992) followed on from the work started by Simmel (1950) on social networks structures and the conditions that create network brokerage opportunities and the entrepreneurial broker and this question will help uncover what form of social network structure is in place.

Research Question Two: From a behavioural social network brokerage perspective, what is the profile of the typical network hole brokers active in brokering access to business opportunities for SMME RFOs?

Network brokerage concerns the actions of a network actor, conceptualised as an entrepreneur, occupying a structural position between distances alters brokering access to valuable information and resources for their benefit (Kwon et al., 2020). The question seeks to uncover how the broker actions in industry versus in theory. This question aimed to expose the key characteristics of the brokerages that operate in network hole brokerage for SMME RFOs.

Research Question Three: What conditions do SMME RFOs need to meet to participate in the lucrative networks?

This question seeks to establish what is expected of the SMME RFOs in performing their obligation to meet the conditions required by the network brokerage structure.

Coleman's (1988) theory relies on network embeddedness and the socially accepted "rents" which are behavioural obligations such as network cohesion-based benefits stemming from intra and inter-network relationships. The question seeks to expose what is required to maintain participation as a RFO.

Research Question Four: From a tie strength perspective, what is the appropriate level of strength of ties that result in access to sustainable business opportunities?

This question seeks to establish whether weak, intermediate or strong ties are required by SMME RFOs to support access to sustainable business opportunities. Granovetter (1973) referred to social ties as having combined dimensions of time, emotional intensity, intimacy and reciprocity. With this question the study seeks to understand whether the more profitable opportunities come from established network relationships or fleeting relationships.

3.3 Conclusion

This chapter presented the background that has informed the formulation of the research questions and how they link to theory. Through the responses of the relevant parties to social network brokerage structures and processes in RFO, the research questions aim to provide a deeper understanding of the conditions prevalent in brokerage in the study area to answer the overarching question of how do SMMEs in RFOs access sustainable business opportunities and what challenges they face in obtaining them and the role of brokers in the social network context. The following chapter will present the methodology followed to conduct the research.

Chapter: 4. Research Methodology

4.1 Introduction

This chapter lays out the research design employed to answer the research questions presented in chapter three. The study was a qualitative enquiry of South Africa's SMME RFOs business development practices. The advantages of qualitative research include: firstly, the ability to study the phenomenon in the natural environment, secondly, ability for the researcher to gain insights into the nature and complexity of the phenomenon, and finally, the ability to research phenomenon in unfamiliar theoretical environments (Basias & Pollalis, 2018).

It was envisaged that the study would unearth rich insight into the structure and behaviour of brokers that is prevalent in the RFO industry that affect the ability of SMMEs to sustain and grow their businesses and the challenges they face. The data was collected through a recorded semi-structured interview held with the participants in the sample. The data was then coded and thematically categorised to develop broad themes for discussion reflective of the literature review. The validity, reliability, limitations and ethical considerations were kept top of mind during the study and the related interventions were documented in the limitations chapter.

4.2 Research Design

The purpose of this study was to analyse the experiences and behaviours of the sample without using statistics on numerical data for analysis, but rather answers were sought to questions regarding how phenomena that took place, who was involved, what they did, when did they do it, and where was it done. The research was conducted through a qualitative cross-sectional research design. The analysis was done through a series of interpretive techniques to describe, code and translate the phenomena in a business context (Basias & Pollalis, 2018). Interpretivism is a social science philosophy concerned with considerations regarding the social context of the environment that characters are confined to (Packard, 2017), and because this study sought to interpret the subjective experiences of characters, it employed interpretivism as the philosophy of the study. The design seeks to obtain depth of understanding from the responses for a set of questions presented in the study (Vaughn et al., 2019).

"... all good science is the result of exploratory research." (Swedberg, 2020) stated that when discussing exploratory research from a social science perspective and

positing that at its core research is concerned with discovering new things by working through a research topic and therefore good science can only be described by the quote. Exploratory research is the most suitable for finding new insights on known phenomena due to its obsession with discovery Which sets it apart from other types of research for its inquisitiveness. Swedberg (2020) state that there is a known problem with the definition of exploratory research in that it is broad and anything could become exploratory research. However, setting parameters to present a clear design that produces repeatable results meets the test for good research. The parameters set for this study means that exploratory research was suitable for this topic.

Qualitative research allows the researcher to insert themselves in the natural environment to investigate it without disturbance (Swedberg, 2020), therefore an exploratory qualitative study was the most suitable method to extract the lived experience of SMMEs in the RFO to gain an appreciation of the phenomenon prevalent in the environment naturally. The strategy for the study was a semi-structured interview that used an interview guide to set the context and invite narrative flow from the interviewees from their real-world experiences of complex situations (Saunders et al., 2016).

The outcomes of the interviews when collated provided a clear perspective of the context the SMMEs in RFO were operating under and the impact of the structure of the network and the behaviour, processes and actions of the stakeholders routinely affect the viability of their businesses. The narrative did not take much to be drawn out of the RFOs as they were ready, and even seemed yearning, to have someone to listen to them tell the story of their entrepreneurship in a sector that most of them are in because of love and sometimes high sunk costs. The study was designed to test phenomena against established theories moving from the top down in this case, starting with social network and related theories and working down to phenomenon as they occur in the environment, therefore the study took a deductive approach (Soiferman, 2010).

4.3 Population

The population of this study primarily consisted of SMME RFOs. The South African definition of a SMME is informed by the amended National Small Enterprise Act, 1996 (Act No. 102 of 1996) and considers only quantitative measure of the full-time staff compliment, and the total annual turnover and sets sub parameters for each size of enterprise micro, small, and medium by sector (Table 1). Since the South

African definition of SMME is by sector, the purposive sampling for this study only considered SMMEs in the transport sector employing between zero and 250 total full-time equivalents of paid employees and generating between ZAR 0 and ZAR 140 million total annual turnover (DSBD, 2023).

Table 1 The South African definition of SMMEs (DSBD, 2023)

Sector	Size	Employees	Total Annual Turnover
Transport, Storage and Communications	Medium	51 - 250	<140 million
	Small	11 - 50	<45 million
	Micro	0 - 10	<7.5 million

The researcher conducted thirteen interviews, however one was not completed due to the participant being unavailable after an initial disruption, therefore twelve interviews are included in this study. There were no participants who were excluded from the study and all participants met the governance requirements to be included in the study and were made aware of its purpose and their rights within the process. Table two below shows the demographic and business information of the participants.

Table 2 SMME RFO Demographic Information

Code	Duration	Gender	Race	Age	# Trucks	# Employees	Total Annual Turnover (Million)
RFO1	01:07:48	Male	Black	37	2	2	< 7.5
RFO2	00:51:51	Male	Black	44	15	35	> 7.5, < 45
RFO3	0:47:52	Male	Black	40	1	1	< 7.5
RFO4	00:58:38	Male	Black	54	5	2	< 7.5
RFO5	01:09:31	Male	Black	37	5	5	< 7.5
RFO6	00:45:39	Male	Black	39	4	10	< 7.5
RFO7	0:57:15	Male	Black	30	0	0	< 7.5
RFO8	01:00:53	Male	Black	34	4	0	< 7.5
RFO9	01:08:50	Male	Black	37	3000	9000	> 140
RFO10	01:00:27	Male	Black	45	0	0	< 7.5
RFO11	00:54:56	Female	Indian	47	0	30000	> 140

Code	Duration	Gender	Race	Age	# Trucks	# Employees	Total Annual Turnover (Million)
RFO12	01:09:00	Male	Black	33	22	20	> 7.5, < 45

4.4 Unit of Analysis

In the sociocultural perspective, a unit of analysis is predominantly collective and has characteristics of the context of the situation, dynamics, activity or culture being observed as influenced by the various participants who are engaged in the environment (Dieumegard et al., 2021). The unit of analysis for this study were SMME RFOs, one broker, one large RFOs who is a competitor to SMMEs, and one customer of both SMMEs and large RFOs who also uses brokers. This was done to improve the representativeness of the influences of the various key stakeholders in the population who are intimately involved with the dynamics in the environment being studied.

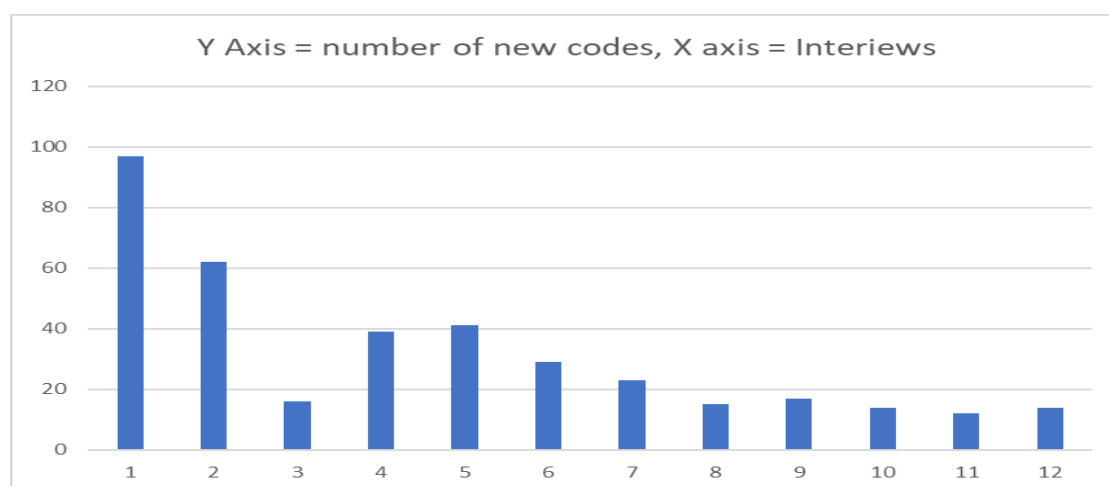
4.5 Sampling Method and Size

Non-probability sampling was utilised as the sampling method for this study, because a probability sample could only be applied on a complete population list (Saunders et al., 2016). The sample that was chosen consisted of participants receiving the invitation to be interviewed from the personal database of the researcher coupled with snowball sampling, therefore could not constitute a complete sample. The selection criteria for the sample sought to satisfy the parameters of the population as defined for SMMEs and the related participants in the market. All participants had to be users or suppliers of RFO and all the SMMEs had to meet the sector SMME criteria (DSBD, 2023).

The population was formulated to gain the majority perspective of RFOs, but also to include the insight from the perspective of a broker who is the actor in the network, a customer who is the recipient of the services and influences procurement strategy and decision making, and a traditional large RFOs who represents the perspective of the established industry and one who SMME RFOs are asked to subcontract under. The sample needed to possess defining characteristics such as fleet size, total annual turnover and employee complement to be representative of the population in the study, therefore the quota sampling technique was utilised on the non-probability sample (Saunders et al., 2016).

The purpose of the qualitative studies is distinct in that it holds priority over the deep insight into the cultural categories and assumptions that are held by a sample and their experiences (Varpio et al., 2021). It is not to determine how many people hold such beliefs, therefore it is more important to gain access to the correct profile of sample than to aim and meet a certain number of interviews which do not offer the depth of insight the researcher requires hence eight interviews of the right quality are considered sufficient (McCracken, 1988). However, a commonly held belief is that twelve interviews are required at least to reach saturation. Fortunately, this sample reached twelve interviews. The data saturation point is reached when no new data or themes are produced in the data from the completion of further interviews and it is a useful parameter to guide the confirmation of the correct sample size having been selected (Boddy, 2016). The data saturation graph (figure 4) tracked interview new code generation until new code generation was negligible.

Figure 4 Saturation Graph



4.6 Measurement Instrument

The measurement instrument for the qualitative study was a semi-structured interview due to the flexibility it afforded the researcher in following the natural flow of information that provided natural and real-world insights. A semi-structured interview encouraged the participant to tell stories that are essential to gaining insights regarding individuals' life experiences to develop the application of the theory in this area of supply chain (Saunders et al., 2016). Although the semi-structured nature of the interviews is criticised for being biased and lacking in validity, it is more useful for this study as the insights that were gleaned outweigh the validity concerns that are addressed in the quality control section. Another drawback is that the desires and interests of the participant may drive them down paths of

information to meet a hypothetical or desired outcome. Basias and Pollalis (2018) propose triangulation in qualitative research as a tool to increase the validity and reliability of research outputs, this study used theory triangulation.

A benefit of semi-structured interviews on the other hand is the latitude it affords the interviewer to move between questions, themes and emerging insights to follow the narrative of the participants while manufacturing distance between them allows authentic expression to occur (Basias & Pollalis, 2018). Intimacy with the subject matter is counter-intuitively a hindrance to good qualitative research and conducting a proper semi-structured interview (Garrels et al., 2022). The researcher needs to deliberately manufacture distance between themselves and the culture, subject or environment that they are conducting research in so that their biases do not affect the direction the participant takes in the interview process. The researcher must also assist the participant in divorcing themselves from their conscious beliefs and biases to reveal their 'taken-for-granted' real experiences to avoid presenting what they think the interviewer wants to hear (McCracken, 1988).

The structure of the interview guide was drawn from the work of Mangalmurti (2019) who developed the instrument for their study into entrepreneurship and leadership among South African smallholder farmers. It solicits information on demographic, contextual and entrepreneurship factors, which were all adapted for this study's measuring instrument, and then the remaining sections relating specifically to this research study were developed and added for focus. The instrument was based on the literature review in chapter two and designed to guide the researcher in answering the research questions. Five Likert scale questions were added at the end of the interview guide as an attitude assessment so the responses could assist the interviewer gauge the attitude of the participants. The five key research themes were: firstly, level of happiness with the role of networks in business development. Secondly, level of happiness with reciprocity in business development. Thirdly, the reliability of information available to the entrepreneur. Fourthly, the level of satisfaction with the network brokerage in the industry, and finally, the level of confidence that their business is sustainable. The Likert scale is an attitude scale measuring latent variables that influence behaviour that is inferred from the individual's actions (Willits et al., 2016), hence the usefulness of the type of scale for the study.

4.7 Data Collection

Data was collected via semi-structured interviews held online and recorded electronically on Microsoft Teams and Whatsapp as RFOs, especially those who are owner-operators as most of them are, spend most of their time in the vehicles. Input of the supervisor was obtained on the content of the interview guide (Appendix 2) and a pilot test of the semi-structured interview guide (Saunders et al., 2016) was conducted with a friend to work out the issues with the structure and content and feedback was collected and incorporated into the revision of the semi-structured interview guide before final interviews were held. An Informed Consent form (Appendix 1) was supplied to the interviewee to complete before the interview commenced and the interviewees were assured of anonymity and the voluntary nature of the interview. All the recorded interviews were transcribed into text with Descript for analysis and will be stored as dictated by the research rules. The shortest interview was 00:45:39 and the longest interview was 01:09:31 with the average length of the interviews being 00:59:23.

The interviews took place once the ethical clearance was obtained on the 20th of September 2023 until the 9th of December 2023, a period of 81 days was required to complete all twelve interviews. Notes were taken at every interview to enhance the interview process of the subsequent interviews with emerging themes and priorities of the participants so that those could be validated or confirmed as uncommon occurrences by other participants. McCracken (1985) emphasises the importance of the interviewer being unobtrusive in the interview process not only to put the participants at ease but also to assure they are not being directive to the participant to maintain the output of the process being the participant's own world view. To that end, a lot of the interview was left to the participant to lead, guided by the interviewer and the interview guide so the conversation did not stray from the study parameters. Interviews were encouraging to proceed until the point of data saturation.

4.8 Data Analysis

ATLAS.ti is a software tool for the management of large qualitative research data that was developed by Thomas Muhr (Soratto et al., 2020). ATLAS.ti is the recommended tool for qualitative data analysis at the University of Pretoria and a licence to access the software was provided by the University upon request and a qualitative research workshop was held and included an introduction to the basic

functionality of the tool (Chipp, 2023). The interview transcripts were loaded onto ATLAS.ti and coded from the quotes created to enable inductive data analysis.

Codes were used to summarise the essence of meaning of numerous quotations that carried the same sentiment and the software also assisted in collating all the quotations, codes, grouping codes and allowed for notes to be made as analysis was conducted on the data to categorise it thematically (Soratto et al., 2020). Each transcript was loaded on to ATLAS.ti as progress was made on the interviews in a process that supported the note-taking after each interview to track emerging themes and perspectives that needed to be checked with subsequent participants. In their seminal paper on thematic analysis Braun and Clarke (2006) define it as a process as the organising and interpreting data by identifying, analysing and reporting themes or patterns.

In **step one** of thematic analysis the data was transcribed using automatic transcription tool Descript and then each transcription was edited for clarity and then the transcripts were reviewed a few times to understand the gist of the content before being loaded into the ATLAS.ti for analysis. In **step two** the transcripts were coded manually and the codes were collated according to the relevant data in each code into broad themes by developing code groups under each theme that was common and relevant in **step three**. The codes were then checked for consistency using the code manager on ATLAS.ti in **step four** of the process and levels of codes were reordered where necessary to maintain the intended grouping in level one and two of the codes to generate the thematic map. In **step five** further refining of the themes was done using code folders on ATLAS.ti where code themes can be grouped together to determine theme families that can be defined and were closer related to chapter two's literature review. The **last step** of the analysis was producing the report by writing out the narrative that is naturally produced by the themes accurately, applying consistent logic and avoiding repetition so the essence of the theme related to the literature review could be easily distinguished (Javadi & Zarea, 2016).

4.9 Quality Controls - Validity, Reliability and Bias

The quality control of this study was concerned with assuring the validity and reliability of the data collected. How closely research manages to measure what it intended is referred to as validity and that the findings are about what they intend to measure. Qualitative research validity is considered weak, especially external validity, and is given the same consideration as plausibility or credibility as it cannot be tested through statistical methods (Saunders et al., 2016). The quality of the

interview guide is a key parameter to control for validity in two ways: (i) control content validity by expanding the data collection tool, the interview guide in this case, so that it covered broad enough themes that all intended data is collected from the interview to answer the research question, and (ii) construct validity by targeting the questions carefully to assure that the interview guide covered the parts of the theory or construct as intended by the literature review (Saunders et al., 2016). This study adequately covered both aspects and an added validity control is the adaptation of the interview guide from a previously used guide for a similar sample and research design.

The reliability of research means that it employs data collection methods and analysis processes that meet required standards to produce reliable results and repeatable results. Reliability speaks to consistency in reproducibility of the methods, results, interpretations and conclusions (Saunders et al., 2016). There are two risks to reliability each from the subject side (participant), and the observer (researcher) which are caused by error and bias. Subject error occurs when the same interview guide produces different outcomes from the sample due to context or environmental changes which are not immediately obvious for the researcher to control. Observer error on the other hand may be how a different researcher expresses questions which may solicit different responses from the participant. Subject bias occurs when participants provide answers they think the researcher wants to hear for example to protect their image. Observer bias occurs when different researchers interpret the same set of data differently (Saunders et al., 2016).

For this study, validity was controlled for by applying the content and construct validity principles in the design of the interview guide which was based on an existing instrument designed for similar research, and consistently using the interview guide as a standard set of foundational questions for every interview. The reliability aspect was addressed by being conscious of biases and errors that are prevalent in qualitative research from the participant and researcher perspective and carefully conducting the interviews to steer away from the known pitfalls of this type of research. The third intervention to address the concerns with qualitative research was internal bias of the researcher who needed to divorce their experience, bias, knowledge in the industry from the interview process and show the curiosity of a complete novice in the theory and constructs. This resulted in a process that was characterised by inquisitiveness and honest expression from participants (McCracken, 1988).

4.10 Ethical Considerations

Ethical clearance was obtained on September 20, 2023 from the University of Pretoria's Ethics Committee that assured that the research plan, subject and intended content was ethically sound. As instructed in the MBA 2023/24 Applied Business Analysis and Research Report Regulations 'Green Pages', Informed Consent (Appendix 1) had to be acquired from every participant before they participated in the interview. The participants' rights to confidentiality and anonymity were addressed as stated in section 4.7 above.

4.11 Limitations

As stated above, and confirmed in theory by Axelsson and Lundin (2016), uncontrolled systematic biases may cause study limitations due to the vulnerability of the measuring instrument. This causes the reliability and validity of the study to be threatened by ineffective analysis and execution. A potential limitation of this study may be subject error due to low level of honesty displayed by the participants to protect their image and their entrepreneurship which is linked to self-worth through the self-referent image that influences the decision to become an entrepreneur and self-efficacy linking any failure to their self-worth (Laguna, 2013). Qualitative research is considered vulnerable and limited by bias and the researcher knew that they were not immune to observer error and bias and presented quotes from the interviews as evidence to substantiate findings (Javadi & Zarea, 2016).

Another potential limitation of the study may have been confirmation bias. This is also known as myside bias, a tendency to seek information that confirms a held world view, can affect the researcher and participants where information confirming their biases is shared to build a picture confirming their potential failures within the industry for the participants and seeking to confirm the theory on the part of the researcher (Peters, 2022). For qualitative research, with its admitted limitations, it was crucial for the researcher to adhere to the interventions discussed in the quality control chapter to address the addressable limitations or state the unaddressable ones and be aware of their existence as the research was conducted and the findings were presented and discussed. The sample consisted of SMME RFOs covering the spectrum of the SMME definition for the sector and included a broker, a competitor and a customer to introduce balance in the data generated from the interviews.

Chapter: 5. Results

5.1 Introduction

This chapter presents the results of the interviews conducted with 12 participants who are mostly SMME RFO with a broker, a customer and competitor included, for balance of the research insights. The section presents the key findings under the related research questions found on chapter three and the relevant interview guide questions found in Appendix two. The results are organised under the research questions and the semi-structured interview guide questions they answer. The chapter proceeds with a description of the participants in the study, then presents the results of the findings chronologically by the research question as they were utilised for this qualitative study.

5.2 Participant Description

Table two above contains a list of the participants who made up the sample for the study. All the names of the participants have been replaced with a code to protect their anonymity with RFO referring to a RFO operator and a number referring to the sequence in which the interviews occurred therefore RFO1 was the first interview and RFO12 was the last interview. The demographic information is provided to give context to the entrepreneurial aspect of the SMMEs which is important as most of the RFOs consider themselves entrepreneurs as a descriptor more than the technical company profile of SMME. The company information gives an indication of the development level of the company. RFOs primarily refer to their business dimensions in terms of fleet size and turnover. The DSBD utilises equivalent of full time employee numbers and turnover to determine the size of the business which is depicted in table two to establish the RFOs as small, micro, medium or large enterprises which is important for the government to measure business parameters aligned to nation economic plans and related objectives.

Eleven of the participants in the study are black and male, and one is Indian and female. This was incidental due to sourcing of the sample having been open to all participants who met the criteria and this sample consists of those who made themselves available. The participants' ages ranged between 30 years to 54 years and they all have at least some tertiary education. Some RFOs in the sample were operational, but did not have owned fleet, because the state of the industry allows operators to lease vehicles short term and hire drivers on a ADHOC basis. This did not meet the full-time employment equivalent measure by the DSDB which is being

applied to this study, therefore operational RFOs who were active report not owning any assets, which although established among the large RFOs, is an emerging trend in RFO. There were only two participants who were not owners of the operations they ran and it was the two who were brought in to give perspective of a large competitor to SMMEs and the one who represents a typical customer of RFOs in FMCG. The turnover and employee complement of nine of the RFOs falls within the SMME parameters for the sector as set by the DSBD and the two outliers are the balancing operations to give perspective.

5.3 Results: Research Question One

What form is the social network brokerage structure for SMME RFOs?

This research question sought to understand the social network brokerage structure prevalent in RFO. It emerged that much of business was obtained through some form of network brokerage structure which in most cases was tiered depending on the level of regulation and product category being hauled. The conditions of the network, especially in the haulage of mining and mineral products, create network brokerage opportunities.

5.3.1 Are There Groups or Connections That Offer Business Opportunities?

All the study participants referred to their networks as informal formations more than a formal organisation with a formal structure. The activities and behaviours within their formations confirm that they are networks of varying structures. Most of the networks presented as evidence were open networks with an actor who benefits from access to novel information who has concealed to the alters (RFOs) that there is a network with the actor (brokers) that they also participate in (Kent et al., 2016), and therefore they only considered their partners and friends in closed networks as the only networks they participate in and did not acknowledge the network they participate in involuntarily and are often economic victims of.

RFO1 “No, It's an informal network. Yeah, I think you know more than networks and connections, I think it was just a network of guys that, you know, we've met through business. Unless you are connected like I said earlier, for you to get business.”

RFO10 “It's not actually a group. It's like, as I said, the guy that referred you to me, you know, I don't know him. He knew somebody. So, if, so I said, Hey, you know? I'm stuck. Do you know anybody who can help? He said, no, I've got a friend who's using a tautliner. He's loading there. Let me share a contact

number, phone him. Maybe if I said, ah, no, it's fine. Bring your truck. I can organize something for you.”

RFO3 “So, she's trying to organise something for me. if she finds a deal, according to her, if she finds a deal for you, and then that's when you pay her.”

The RFOs considered themselves to operate outside of brokers and outside of those networks. The brokers were a means to survive while they build their own closed networks where they can be secure in their business sustainability.

5.3.2 Are There Any Informal Brokers You Know?

All participants considered informal brokers to occur incidentally either out of chance or by circumstance of being failed RFOs. There was a sentiment in the market that brokerage was an undesirable and unthinkable career or business ambition. Most of the brokers identified by the participants were informal and incidental in their view

RFO8 “But no one, no one is born wanting to be a broker.”

There was a sentiment that informality of the brokers, meaning a lack of resources in the eyes of the RFOs, equates to them being untrustworthy.

RFO6 “There's two streams, the formal and informal. What are the differences between the two streams? They are brokers with offices and you know that these guys are brokers, everyone goes there.”

Most of the perception of brokers is of a business person who either lacked the resources to run their own operations and buy assets, or one who intended to exploit the assets of RFOs, keeping vital information like the secured rate and identity of the customer away from the RFOs to maintain their exploitative position in the eyes of the RFOs.

RFO1 “So you get the guy who goes directly to the manufacturer [who requires five trucks], for instance, he gets the business. He has only two trucks and then he gets someone who's got another three trucks. And he says to him [the manufacturer], I've got 5 trucks for you. But he only has two. And then goes [to the person] who's got the other three trucks and says I've got business for you. And he also, you know, so there's now like this chain of people.”

RFO7 “Yeah, there are small time brokers. But you know you want to be careful. Small time brokers do the same thing, but it's manual. They'll add you

to a WhatsApp group or they will, you know, answer the phone now and say give me your price, you say 200 rand to send something to Pretoria. [He] says OK, I'll call you back or the next guy, give me a price. Says 150 rand. The client says look, I've got one who can do it for 201 for 150. What you're feeling like, you know then he calls you back. OK. You go take the load."

The conundrum of the SMME RFOs seemed to be access to capital to obtain resources, including vehicles because they are a depreciating asset which requires to be close to fully utilised for the business to turn a good profit.

RFO1 "You know, so no one has the necessary resources and no one wants to take the risk, I suppose, of actually getting a loan and getting the necessary resources. And I just subcontracted a subcontract[or] to someone else and that someone else claims to have the resources and subcontracts to another."

5.3.3 How Do You Obtain New Business?

Part of the utility of open network participation is the steady and reliable stream of novel information at your disposal which provides sustained business opportunities for alters and actors alike. From the contributions of the participants, there were three avenues for RFOs to source new business: (i) the strength of weak ties approach, (ii) the structural hole brokerage by performing rents like bribery approach, and (iii) the ESD as a form of structural hole brokerage.

5.3.3.1 Strength of Weak Ties Approach

The RFOs routinely sourced business opportunities through conversations with weak connections who have novel information which was also unlikely to be held by anyone in their closed networks which made the information even more useful.

RFO6 "It's your networks, it's your tendering processes, it's hearsay, someone will give you a lead because they know you're in logistics, you know, uh, basically, yeah, it's those three methods, a word of mouth, uh, leads."

RFO1 "Working with the same subcontractor and all that, so just conversations around what business is available that you know that's where. That's how you get business."

The sentiment seemed to be that this type of business development was the one they put the least amount of effort into and happens by circumstance and proximity to other RFOs they met along the normal course of business.

5.3.3.2 Structural Hole Brokerage by Rents

Some of the RFOs were open about the reality of performing rents to obtain valuable business opportunities and the money was used either to buy contracts directly from the staff of the mines, with the rent performing a brokerage role.

RFO12 “So you'd have either a business development person in your company who goes and markets your company and then goes to a different mine, and then they'll come back and tell you, OK, I got three mines today. They are looking for maybe 20 trucks each, but the challenge is the guy that I got, who is the logistics guy, he needs maybe ten thousand rand to be able to give us the contract. And this other guy needs 20 thousand and this guy needs 50 thousand. Then you must arrange for all that money to be cash, and then you give it to your business development [person] or you go there yourself and you go and drop it off, and then you've got work.”

Or the alternate was for connected brokers who have been inserted into the network as structural hole brokerage structure in open networks with weak ties are utilised to funnel rents back to the connected tertius gaudens actors who create structural holes that they and their connections can be the only options to fill. The ties between the RFOs and the brokers were deliberately kept weak to create distance and maintain a power position for the beneficiaries.

RFO8 “Who is the political contact that they have inside these organisations? It is in the mines, the mines have political people there, then these brokers who are comrades will connect with those people.”

RFO3 “You know somebody who knows somebody who can make things happen. If I may put it that way, yeah.”

5.3.3.3 Structural Hole Brokerage by ESD

An alternate process to bridge structural holes between the SMME RFOs and their customers was through ESD which plays the brokerage role between the suppliers and customers and allows access to direct business which would otherwise not be available to the SMMEs as such opportunities are taken by the established companies with their structural hole brokerage behaviour.

RFO4 “Coca-Cola, I went there as a salesperson. From there, I got an opportunity to be an owner driver. That's when I joined the trucking business.”

RFO12 “The ESKOM contract landed when ESKOM wanted black companies to get into the trucking industry and that's where I got the [B-B]BEE

deal. The opportunity... was mainly looking for black companies because at that time it was white companies that were moving ESKOM coal and then when we started the logistics company, we were subcontracted under the white companies.”

RFO6 “Shell, if you are moving their fuel, they have this B-BBEE scheme whereby they will buy you, three trucks. So, part of it is a grant and part is a soft loan. So, the interest is below inflation. So, it's really, really a soft loan.”

RFO3 “I got a contract with Lafarge. I went to them and I begged them for a contract and they said ‘OK, cool’. So, they gave me one. The rest is history.”

The company played a tertius iungens arbitrator role in becoming a structural hole broker in a network to create connections where the company was the customer and the broker and therefore used their power position to create favourable conditions for all parties involved in the network (Faist, 2014).

5.3.4 Do You Primarily Rely on A Strong Network for New Business Opportunities?

Both sides of the coin were evidenced in response to the question on whether business was consistently sourced from closed, strong networks with long term time dimensions or through weak ties which are fleeting, but provide novel information.

5.3.4.1 Closed Network Strength Brokerage Perspective

The distinction between whether RFOs venture outside their closed network seemed to be the desperation of the RFOs at the time of sourcing business. In relatively bountiful times, the owners stayed within their network for business opportunities which were readily available as their network is not saturated.

RFO4 “It's contacts from a friend of mine. We know each other for a long time. And they've been in this business for a long time. He has contracts with the state then asked me to come in and do the transportation part of it because of my expertise in that, but under general, we get contracts through networking.”

RFO10 “I would say as African brothers, meaning that we blacks, we try as much as possible to assist each other. Guys won't let your truck stand idle. They will tell you where to go, but they will tell you they're not promising that you're going to be happy, but it will just keep you going because don't want our trucks to stand.”

5.3.4.2 Open Network Strength Brokerage Perspective

In times of low demand, saturation of suppliers within the market or when the business was new and the owner was still developing their network, the RFOs ventured outside their closed networks to seek novel information from weak ties to sustain their businesses.

RFO10 “If you've got only one truck or you are new in the industry, it's very difficult to directly access clients that are going to pay you well. You depend on the What do you call it? These people, they are brokers.”

RFO1 “Yeah. I think in this case I'm familiar with brokers, but in this case, these are not brokers, these are people who go pursue the business. I'm assuming they know people or they have the necessary connections to get the business.”

5.3.5 I Have Reliable Access to Information About New Business Opportunities

Most RFOs lamented the lack of governance support in the industry they were involved in and the general lack of oversight from government which had created an institutional void and opened a space for reported corruption and lawlessness.

RFO1 “It's just really fractured. There's no formal structure.”

RFO4 “Then there's a bribe. Yeah. Because now, other people are not getting the same opportunities I am. I get privileged information.”

RFO5 “That [tender] was done fairly, of course, but even if it was being done fairly, someone still had to let you know about it.”

5.3.6 Summary of Findings of Research Question One

In responding to research question one, evidence was provided to affirm that the RFOs are aware of networks as sources of information for business development, but they were not aware, or had the structure of the networks they participate in concealed from them (Iorio, 2022). They all considered the brokers, who were the main actors in the industry, as outside of their networks which they only consider as their closed network of long standing social relationships. As intended, the structural hole brokerage structure prevalent in the industry favoured the brokers.

5.4 Results: Research Question Two

From a behavioural social network brokerage perspective, what is the profile of the typical network hole brokers active in brokering access to business opportunities for SMME RFOs?

Network brokerage concerns the actions of a network actor and they are conceptualised as an entrepreneur who creates, maintains and occupies a structural hole between distances alters brokering access to valuable information and resources for their benefit alone (Kwon et al., 2020). This question sought to uncover how the broker acts in industry versus in theory. This question aimed to expose the key characteristics of the brokerage behaviour.

5.4.1 What Is the Relationship with the RFOs You Share Business Opportunities?

Although RFOs did not recognise brokerage as a desirable or legitimate form of business they themselves act as brokers naturally in their normal course of business and apply the same tertius gaudens behaviour that they lament of brokers, but accept it as necessary action to secure business and service their customers while sharing business with their closed network.

RFO8 “It's 50/50 because I get work from those guys which I know and from the relationship with my transporter because most of the time if they know someone who can assist with work, they are giving it to me so I can assist [them].”

RFO1 “The profitability perhaps is what's lacking. What I've found is that there's a lot of people who have contracts, who have connections, but do not want to own the assets and then would want people who've got a truck or a fleet of trucks and they will offer you the business.”

RFO3 “I would like other truck owners to come and work under me and I will pay them in advance so that we can, we can work.”

RFO3 “I'm being realistic because remember I'm subcontracting. And subcontracting it's multi dependent. The person you are subcontracting if tomorrow they wake up and they're not feeling good, they can give you a call and say, 'hey bro, the main client is no longer giving me enough work, so I can't give you work.’”

The relationships that were established within the network were informal to the benefit of the RFOs and the brokers in general and therefore offered no stability to establish a sustainable business with adequate assets. RFOs reported increasingly moving away from fleet ownership due to the inconsistent demand which favoured brokerage.

5.4.2 Do You Have a Business Mentor for Guidance and Support?

Three perspectives emerged from this question which was designed to solicit responses about a brokerage action from someone who is willing to bring the RFOs into their network and shared their resources of information through experience and their connections as a brokerage service to assist the RFOs establish and sustain their businesses. Some participants had access to mentors, some did not and others were mentored through ESD programmes by an organisation.

5.4.2.1 Mentorship Perspective

There were some organisations whose business model was business mentorship who fashioned themselves as industry bodies that offered unique insights into business and could broker structural holes, however the experience of the RFOs was that the information given was generic and limitedly useful. Mentorship was profitable when it was being done by an established business owner within the industry who offers information.

RFO10 “I did the research on how I can get the finer details on how to sustain this business. There's the bargaining council. And then there's a RFO [association]. I think they asked me to keep paying about R600. They sent me a complete starter pack. It's a whole kit from A to Z. It tells you about everything that involves the business. Unfortunately, it talks about an ideal situation, whereby you can have people who are genuine.”

RFO2 ‘One of the guys who is well known in the Industry, Patrick, you know he started the company [redacted] and it was one of the big companies. He's retired now and he's one of my mentors.’

RFO3 “Well, he's been in the industry before me, so he mentors me. And then there's also another old madala from Vereeniging. He's currently got five trucks and he's transporting steel. He also mentors me.”

The RFOs experienced the mentorship in terms of business insights more than being given direct contacts that yielded business opportunities.

5.4.2.2 No Mentorship Perspective

The sentiment from the RFOs was that they were exposed to the open networks in the market and the whim of the powerful brokers who exploit them for their benefit. Those suppliers lamented the lack of formal mentorship that would support their business and protect them against the open market.

RFO1 “No, I don't have a mentor and I suppose that's the point I was getting to when I said, I think really the support that's needed is ESD programmes that can help small operators get reliable vehicles and really build businesses 'cause now you get the sense that it's just Cowboys. But I mean, you don't blame them because there's so little to work with that you can't build a business.

RFO10 “Like I'm saying, I'm just getting information from different sources. I don't have anyone who's actually mentoring me ally right now”:

Researcher “So would you say you have someone who is your mentor in the industry who's helping you out?”

RFO10 “At the moment I will say no because I'm just getting information from different people so I don't have anyone.”

5.4.2.3 ESD and the Tertius Gaudens Brokerage Perspective

The most supportive and comfortable form of structural hole brokerage for RFOs was the ESD programme which shielded the SMMEs from the open market and gave them time to establish themselves as intended by the NDP (2030).

RFO1 He's an engineer by profession and he got a contract with his previous employer who's a manufacturer and they seem to have a very good thing going. So, this backs my point about ESD.

RFO4 “They loaned us 25 grand start-up capital, and they also loaned us their own vehicles. Now we had to run the scheme with the loaned money and the loaned vehicle for a period of two years.”

The obvious flaw with the ESD programme was that they were not designed to be perpetually sustainable due to their being limited to the two percent of post-TAX revenue spent required to meet the government's transformation requirements.

5.4.3 Are you Helping Other Hauliers Like You Access Business?

This question sought to explore further whether the RFOs themselves play a structural brokerage role and what type of brokerage actions they display when they

could broker lucrative business opportunities. Three perspectives emerged from the participants who expressed that either the assistance was not reciprocated so no gain was made from it for the RFO, or they utilised the information for their own gain exclusively, or finally the only organisations able to freely broker opportunities is under the conditions presented by ESD TAX requirements.

5.4.3.1 Assistance Has Not Been Profitable or Appreciated in The Past

RFOs had not found the mentor brokerage behaviour to be beneficial for them as there had not been any implementation of the advice which was on business administration and not brokerage of opportunities.

RFO2 “I tried before, but you know with us Africans, we don't trust each other. Everybody wants to do and achieve what I've achieved with the growth of these trucks, but nobody wants to go through the journey that I went through.”

RFO12 “No, we don't have any companies that we are currently assisting. We have been approached by other people, but the old man was not interested in mentoring most of the guys because he's always honest with the guys to say 'look, there is no longer money in the transport space.’”

5.4.3.2 Express Need to First Establish Themselves

Some RFOs were more honest in expressing that they cannot focus on mentoring others when they themselves did not feel established or comfortable in their businesses, therefore their actions were as tertius gaudens and designed to benefit themselves.

RFO6 “I don't want to lie, I'm also fending for myself and I don't have time to babysit other people. I still need someone to babysit me as well.”

RFO5 “I would love to help but at this moment I'm trialling and erring myself, so it makes it hard. I want to help someone else, but because I'm a trial and error myself, I cannot.”

5.4.3.3 ESD Mentorship Approach

RFOs who were large organisations with high enough revenue to not be exempt from the SMME tax conditions were forced to spend on ESD, therefore they design programmes that benefit their organisations and contribute to their profits as a priority.

RFO9 “Yes, we have a lot of initiatives like the owner driver [scheme]. They work in the truck, they own the truck at the end of a certain period. We have a supplier development programs where we bring in suppliers. We give them

the tools to be successful in their business and then we introduce them to our customers.”

5.4.4 Do You Use Brokers?

This question was designed to solicit responses that would give insights into whether RFOs were aware of brokers within the industry, what their intentions and functions were and whether they were aware of their own brokerage actions and behaviours. It emerged that brokerage was pervasive in the industry and RFOs are essentially on a spectrum between being alters (RFOs) and actors (brokers), swinging from behaving *tertius gaudens* who sought to benefit themselves to a *tertius iungens* who sought to benefit the whole closed network, and to a *divide et impera* actions to maintain structural holes.

5.4.4.1 Tertius Gaudens Behaviour

The brokers were primarily observed to be exploitative, self-serving parasites of the industry who used unwitting customers and suppliers by controlling access to business opportunities which is exactly the definition of a *tertius gaudens* behaviour (Simmel, 1950). Sometimes the RFOs perceive the behaviour of brokers to be motivated by race.

RFO10 “They make a lot of money per day. The problem is you as a truck owner, along the way, it's going to affect you. You may not see it now, but as time progresses, as a truck gets older, and it needs more attention, it needs more service, it's where you feel it. No, man, I've been abusing my truck. I've been actually helping these people to get the money for free while sitting at their homes or offices yet the driver is up and down and my truck is getting buggered.”

RFO9 “No, the operation cost is their own, they take care of the fuel, the licensing, but we take care of the administrative side like for example once they finish delivering they would bring us all the documentation and then we will take care of that but the operational cost is their cost.”

The brokers took control of the elements of the operations with the least amount of capital and operational expenditure, and risk and then took the most profit.

5.4.4.2 Iungens Behaviour

The preferred brokerage relationship involved a *tertius iungens* within the network who was concerned with maintaining benefit for the entire network.

RFO6 “I stopped doing the brokers because you know, those guys, you're actually working for them. You know, let's say now I've got a fair deal on my subcontract because it's a friend. He's got a contract with Caltex regionally.”

5.4.4.3 Divide et Impera

The worst form of brokerage in the industry were criminals and scammers who, having secured sources of business, would sell it multiple times to different RFO for an upfront fee and only one RFO could get it which created conflict within the RFOs, but maintained the relationship between the broker and the customer to carry the practise on.

RFO7 “No, I haven't come across something like that yet. The brokers I've dealt with are independent of anything, so they're just the middleman. The bad people are the ones that sell the same load three times.”

RFO10 “When it comes to a truck owner, you're not having a direct contract with a customer because there's always a middleman. The middleman will send you wherever they know they're going to make money. And they look at you, you know, the colour of your skin matters. If you're an Indian or a white, you also have got trucks that are registered with a broker you will get all those nice routes, or short routes. Because they're trying to make a lot of money. But what will happen if the broker is owned by an Indian, Indians benefit. If it's by a white guy, whites will benefit because they'll get all those nice routes. You will be sent to Limpopo, to Tzaneen, to Makashakashas, bro.”

5.4.5 Summary of Findings of Research Question Two

This question revealed the actions of the brokers who operate in RFO as primarily tertius gaudens brokers who acted in their self-interest. The most prominent alternate presentation of brokerage behaviour was the tertius iungens intra-network brokerage for the benefit of a closed network that is produced by ESD-mandated spend which shielded the alters in a network that was outside of the market conditions of competition which was unsustainable. It was speculated that the broker strategy of divide et impera had been revealed to a limited extent because it was meant to be concealed for it to be effective.

5.5 Results: Research Question Three

What conditions do SMME RFOs need to meet to participate in the lucrative networks?

This question sought to establish what the expectations were on the SMME RFOs in performing their obligation to meet the conditions required by the network brokerage structure. Coleman's (1988) theory relies on network embeddedness and the socially accepted "rents" which are behavioural obligations such as network cohesion-based benefits stemming from intra and inter-network relationships. The study sought to expose what was expected from the RFOs to maintain their participation.

5.5.1 How do You Show Appreciation to Someone That Arranged Business for You?

This question was designed to solicit information regarding rents that were performed in the brokerage relationships which may not have been ex-ante the event of brokerage, but ex-post and may therefore have been considered not causal to the brokerage action of the actor in the network and not considered to be incumbent upon performing of the brokerage action that would make the rent a bribe. What transpired we potential replacements to bribes to gain the favour of the broker with an honorarium and reciprocity.

5.5.1.1 An Honorarium

There were conditions that were considered prevalent for a payment or a gift not to be considered a bribe which seemed to be time and value of the gift. If the handing over of the gift is after the brokerage event then the gift is not considered a bribe and if the size of the gift is disproportionate to the value of the opportunity provided by the transaction then it is not considered causal on future brokerage actions and expectations.

RFO4 "An honorarium is money that you pay for saying thank you in its honest form. If you give me honest help, like you know, just being patient with me just to go through the process. Then after everything, I'm now running smoothly. Hey, you know what? when I look back, I [think] I wouldn't be here if it was not for you. Now I say, 'hey my brother, through thick and thin, you've helped and I'm grateful."

Researcher "What is the difference between a bribe and an honorarium, to use your words?"

RFO4 "Okay. An honorarium is a simple 'thanks for your help', I've decided to buy you this present. Or, Hey, listen, man, you know what? No one would have done this [for me]. Here is a thousand rand, that's

an honorarium. A thousand rands or 500 rands. That's an honorarium. It ends there. Full stop. No other thing thereafter. [It is] Not a bribe.”

Culture was not mentioned as an influence on this form of exchange, but it seemed to be a common expectation that some form of transaction always happens in a brokerage situation involving RFOs.

5.5.1.2 Reciprocity

Within closed networks it is clearer that the understanding and the expectation of the network members is that opportunities will be brokered on behalf of the member and shared first within the network and be reciprocated as a rule of membership.

RFO10 “I got that you gave me a lead. I show appreciation somehow. Not necessarily like in a form of monetary value. It'll happen one day if you're stuck. I say, ‘Hey, you help[ed] me. Let me see, I don't have cash, but I see you've got a problem with the spare wheel. I've got a spare wheel in my yard [for you].”

5.5.2 Does the Person Who Arranged Business Say How They Want to Be Thanked?

Connections who performed brokerage actions on behalf of RFOs had in some cases expressed what they expect of the RFOs in exchange for facilitating a transaction which gives the RFOs the opportunity to consider whether the option morally aligns with them before engaging in the transaction. However, in some instances no choice was given ex-ante and then there is an expectation of a rent that was communicated post-ante the brokerage event where there was no choice given to continue without engaging in the payment of the rent required by the broker. The third outcome was that a divide et impera strategy were used to disrupt formations like business forums by awarding business to prominent figures who will broker stability in the network.

5.5.2.1 Soliciting (Ex-ante)

In some cases, the broker had expressed how they wanted to be appreciated for brokering action in part ownership of a business in the below example where brokerage was used to gain ownership without investing anything other than the connections.

RFO5 “Then he ended up connecting me to the people who will be pushing my paperwork, he [then] wanted 50 percent of what I'm getting. 50 percent of my business.”

Researcher: “It's not like you get work and then you will be surprised by the bribe afterwards?”

RFO12 "No. When you guys are discussing, he'll tell you if he can do it or not. It's not to say you're saying, 'here's 50 grand see if you can do it.' No, you ask him, 'can you do it?' It is 'Yes, I can'. You give him the deposit, he goes, prepares the paperwork, comes back with the paperwork. You sign it, you give him the balance and that's it.”

RFO1 “I mean, there's business that I was after. I'm not going to mention the company and it was very clear that you can get the business, but you're going to have to pay.”

5.5.2.2 Soliciting (Ex-post)

RFO1 “Someone is going to give you a call after a few months and you know you're going to have to pay.”

5.5.2.3 Divide et Impera

RFO12 “So, what you find is let's say we have a mine that we are targeting that we want to put our trucks in and then we go and negotiate. They don't want to give us a piece of the pie. Then we go and block the roads until we come to a round table discussion and then after that, if they still don't listen, the mine will target whoever is the ringleader in the forum. They'll take visits. Give them maybe a slot for five trucks to keep them quiet, and then the person will come back and say, 'look comrades, let's just stop this whole thing.' Whenever they come back and say that they are eating, they are giving them something.”

5.5.3 Have You Had to Pay to Get Business Opportunities?

In certain cases of structural hole brokerage, there were explicit rents that were expressed to be required of RFOs to gain access to lucrative networks, these could be ex-ante bribes paid or post-ant demands for rents and if the RFOs did not comply to the demands for rents then they were penalised for their reluctance to comply and then excluded from the network as soon as possible.

5.5.3.1 Bribery as a Participation Rent

An explicit requirement of RFOs seemed to be the payment of a bribe to participate in the networks to access opportunities, the bribe being the most frequently used form of network brokerage and is pervasive in the industry.

RFO1 “I've been told by other guys, you're not going to do business. You're not going to be successful if you're not willing to pay. You're not going to be successful in the business.”

Bribery has extended from the obtaining of lucrative contracts with customers to include the application of loans from banks to service contract with expenditure.

RFO12 “So what they do is you just go and bribe someone inside the mine to give you a contract. And then from there you go to the bank to say, "OK, yes, my contract and then they'll ask for your bank statement, your financial status is approved.”

5.5.3.2 Penalise Competitors (Gaudens Behaviour)

Connections were also used by brokers to influence the structure of the network since brokers control the information used to make decisions within the network. Suppliers who were not part of the network were excluded from participation or penalised for being unpreferred alters by being given unfair rates or contracts.

RFO12 “And then, if your friend owns the mine, obviously they'll pay you a better rate than whoever else is running with them.”

The broker also determined the level of the rents that were paid by the RFOs to participate in transactions and could vary their cut depending on who the alters were to favour members of their closed network

RFO5 “I'm a broker. I go and I get someone I know. So, I'm going to take money from you [the customer], because I'm getting you this client. And then I take money from the client, because I'm getting you this work. So, at the end of the day, the broker is the one who gets to make most of the money.”

5.5.4 Are You Satisfied with The Network Business Sourcing Approach?

This question was design to solicit responses pertaining to the level of happiness of the RFOs in participating in the network brokerage structure that exist and it had been generally found that most RFOs were dissatisfied with the status quo and would prefer a ESD programme, closed network scenario without external brokers which shielded them from market competition.

RFO7 “The work we're doing now has got two brokers involved, which is very annoying because you know, when there are problems, no one knows who then should take responsibility for what. And then I sit with the problem.”

There was a sentiment that networks had a condition of race as one of the criteria used to determine who got to participate which would be problematic and perpetuate or establish oligopolies in the industry based on race, which would defeat the economic transformation ambitions of the South African government through SMMEs inclusion in the economy (DSBD, 2023)

RFO6 “No, because for example, I know when I was working, mostly my logistics guys were white guys and I could see that the type of contracts that they were giving, you could see that something is [up]. There is this one supplier, they will defend with everything they have.”

There also seemed to be different levels of trust that were granted to brokers by race which allows capital and assets to be extended to some brokers by all parties to allow them to operate and sustain their businesses. There was racial disparity in awarding trust.

RFO12 “It's possible if you're white. If you're black and you own a brokerage company, no one will trust you. Firstly, the minute you enter the industry, everyone will think you are corrupt. No one will give you the trucks and hope that you're going to pay them but the white guy if they come into the industry and say, look, I've got this and this work and I'll pay you on this and such and such a date. Black guys with trucks would agree. So black on black crime still exists”

In general, there seemed to be negative sentiment regarding brokers with 11 participants expressing a negative view of brokers and the brokerage process and even the RFO who exclusively operates as a broker admitted to the negative sentiment of brokers.

RFO12 “So brokers are the biggest crooks in the transport industry, basically because they killed the transporters. A broker will have money and then he will come to you as the transporter and say, look, here's the work that I have. So, they'll present you with the LOI to say this is the work. And then when you agree to the rate that they are giving me. They'll ask for your fleet list, all your truck documents. When he receives your truck documents, he takes your truck documents to the mine to go and look for work with your documents, then they come back to you and say, "OK, I'm taking 10%, you can take the rest.”

5.5.5 Summary of Findings of Research Question Three

The brokers active in the RFO industry acted as *tertius gaudens* to create, maintain and control the flow of information and opportunities through the structural hole and assuring that the most benefit was derived by them first and in extreme cases no benefit flows to the alters in the network, especially the RFOs who are kept in the dark about the transactions in the market and represent a set of assets that can be activated when required. The RFOs were not being considered as equal partners in the networks and transactions. The payment of rents was the only alternative, besides becoming a broker themselves, for the RFOs to secure their position within a network and improve the advantage that accrues to them for their participation.

5.6 Results: Research Question Four

From a tie strength perspective; what is the appropriate level of strength of ties that result in access to sustainable business opportunities for SMME RFOs?

This question sought to establish whether weak, intermediate or strong ties were required by SMME RFOs to support access to sustainable business opportunities. Granovetter (1973) referred to social ties as having combined dimensions of time, emotional intensity, intimacy and reciprocity. This question sought to establish whether the more profitable opportunities come from established or fleeting network relationships.

5.6.1 Are Sources of Business Close Friends or Strangers?

Two streams of sources of brokered business opportunities emerged from the responses to this question. One was that there are opportunities which come from close relationships within closed networks, however those were not considered to be very profitable. What were the more common and profitable streams of business involving an actor who was external to that network who links their network to include the RFOs and closed that network to the competitive market place through either ESD or nepotism.

5.6.1.1 Closed Networks and *lungens* Behaviour

Within closed networks, opportunities were brokered among strong ties, however as Burt (1992) affirmed those opportunities were limited to what the network members could broker or provide and served to strengthen bonds, but did not expand the opportunities for business.

RFO8 “We are friends from school. So, we all studied the same thing. We are just helping each other to go into the logistics business.”

RFO6 “Somebody introduces you and says there's someone at a certain site that they know [for business]. I stopped doing the brokers because with those guys, you're actually working for them. Now I've got a fair deal on my subcontracting.”

5.6.1.2 ESD and Nepotism

The alternate stream of opportunities came from a network structure that excluded competitive market forces and defined a network that was closed, but included more lucrative opportunities within it than what was typically available in the open market, therefore was more useful to the actor and the alters even if it exists for a short while.

RFO6 “They'll say they are looking for black women for example. Whoever is setting the programme will introduce the cousin or the girlfriend or whoever. They know that for the next 60 months, they will make money and then the company dies after five years because the intention from day one was never about logistics, but was about making money.”

5.6.2 Do You Belong to Any RFO Organisations or Associations? If So, Why?

This question was designed to establish whether weak ties that were presented by formal associations that were not devised to promote business opportunities, but are generic industry bodies, result in better access to novel information regarding opportunities or not. The level of subscription to such organisations will indicated whether they were useful as a network brokerage structure or not. It emerged that most RFOs did not subscribe to joining such formations and that the image they hold of them was of useless subscription collectors. Only one RFO reported having been a member of one before. The question assumed such formations were affiliated with the government.

5.6.2.1 Negative Responses

RFO9 “The only thing they care about is the subscription you pay in. I don't know how much it is, but that's all they get.”

RFO2 “No, we don't belong to any RFO organisation.”

RFO5 “I don't belong to any association. I have not received any assistance from the government.”

RFO4 “No, nothing, no support. I did not seek any support from the government. Eh, the government does not help. Let me, let me just be upfront and frank.”

5.6.2.2 Affirmative Responses

RFO7 “I am registered with all these supply chain professional bodies so you know when they host events [for networking, I attend].”

RFO10 “So that's why I joined the RFO Industry Bargaining Council. I registered my business there. So, monthly, when I pay salaries, they will calculate for me how much contribution must go to the RFO bargaining council, sort of like an investment on an employee's behalf, you know. And that helped a lot when we had issues with COVID 19. For almost a couple of months, we were sitting at home, not working, but [the driver] was still getting money from the RFO industry bargaining council, so it worked.

The association assisted with paying a UIF type salary as relief for the driver during the COVID-19 lock downs in 2020, however they also took the RFOs to court when they could no longer keep up with subscription payments due to the same lockdowns.

RFO10 And I'm telling you, when I go out of this court, I will tell everyone who wants to join the trucking industry never ever to join the bargaining council because it's not doing what it's supposed to do. Yeah. I was very cross. Oh, and you know, I did not pay them money, but even today they still harass me.”

5.6.3 Are There Any Whatsapp Groups You Belong to for Sharing Opportunities?

This question sought to establish whether there were social network brokerage formations that were maintained on social media platforms and what implications the hosting of those formations had on the structure of the network and the strength of ties prevalent among network members, the behaviour of participants, information, and benefits flow. It emerged that there were indeed social media platform groups with different levels of formality, but the question did not expose their effect on the social brokerage mechanism for RFOs. A deeper study is required on the effects.

5.6.3.1 Informal Arrangements

The outcome from the interviews was that connection was more important than the platform that was used for the social network brokerage. A phone number was the

link to the networks and brokers ran their networks in different ways with some with more permanence.

RFO10 “Sometimes they don't have a WhatsApp group. You just have a phone. They say, I'm so and so. "I've got a load, and just checking [who is interested].”

5.6.3.2 Affirmative Responses

All twelve participants confirmed that they knew of or participated in brokerage networks hosted on social media platforms and that these groups were becoming more prevalent.

RFO11 “There's absolutely a lot.”

RFO3 “‘cause he's on the group on Facebook. So yeah, he says he gets work every day.”

RFO6 “Yeah, but it's mostly on the side tipper with the brokers. Yeah, it's mostly the brokers who will create these groups and they will invite you in.”

RFO7 “The brokers have different ways. Most brokers now have a platform where you bid for the work. So, they register 50 or 100 transporters.?”

Social media was playing an increasingly important role in the administration of network brokerage and was suspected to have a growing effect on the network mechanisms which will be an interesting topic for the future, but it was not the focus of this study, however it was already evident that social network platforms did affect the speed of transmission of information and likely the amount of time networks existed.

5.6.4 What Are the Rules Governing These Whatsapp Groups?

This question was devised to expose what rules, both explicit and implicit, that have been placed to govern the behaviour of network members. It emerged that the brokers had put in spoken and unspoken rules to govern the networks for their benefit whether in closed or open network. Behaving counter to the rules resulted in the RFOs being excluded.

RFO8 “[The] only rule which is there in the group is that if I collect the load [which you service regularly], you cannot come and want to be paid or want to take the load also.”

RFO7 “Yes, there are unspoken rules. So, remember the big companies you may think do all this work, but they call us and tell us to come and do the loads. Then what happens is they call [me about a load. I am a subcontractor for]. Then I've got two choices; I can call this guy [main contractor] and tell him. ‘Well, chief, let's discuss the rates they gave you that have got an extra, you know, 5 percent because the broker needs to also make money somehow.’ [Or take the job as mine].”

RFO8 “Yeah, we've got a WhatsApp group where we communicate on whereby when I get a load of, I'll post it to their guys and see if anyone who needs it”:

5.6.4.1 Counter to the Rule

Sometimes, if the broker and the RFOs were not part of a closed network then the RFOs would access the offer from the customer and take over the load to make themselves more margin through a tertius gaudens action, but that means they were permanently cast out of the network they were participating in with the broker and their extended network.

RFO7 “Yeah. So, we get rid of the broker. It saves you five percent of [the cost] and we can still be in the same place or I pick up the phone, call the broker and say, hey, the customer's looking for a transporter.

5.6.5 What Do You Have to Do to Be a Member of These Groups?

This question sought to solicit information regarding what RFOs were required to do or own to be a part of these social media platform networks with weak ties. What emerged from most participants was that assets were what was traded for in these groups. The brokers' business model seemed to target RFOs with idle assets as the asset input for their businesses to keep overheads as low as possible. The RFOs were brought into different network formations like nepotism networks, tertius gaudens formed groups where they had to buy in, or to meet a statutory quota like race on ownership scorecards.

5.6.5.1 Nepotism

In this example, a network or group invites an RFO to supply the trucks that were required by a formation that was based on nepotism, with the broker being someone inside an organisation who is brokering an opportunity to their next of kin that meets the regulatory requirements of the project but is not in that industry. The contract was

secured, the RFO implemented the work, and the broker exploited their privileged access to novel information to benefit themselves.

RFO2 “Says my aunt is an MD or director at [redacted] or at [redacted]. They're looking for 8 to 10 guys to transport diesel to this mine. [They say] ‘Can you send me pictures and documents of your trucks and I'll get the contract?’ The contract will be in their name.”

5.6.5.2 Rents (Gaudens Brokerage)

Some groups followed a monthly subscription model for membership in what were sold as lucrative networks, however what they seemed to supply was a listing of opportunities that cannot be guaranteed as valid or without any special access or novelty to the information provided. The network guaranteed that members will get business opportunities from the monthly subscription.

RFO2 “[They say] If you join in and pay 5000 rand a month as being a member or 5000 per truck to be a member we will guarantee we'll get you jobs.”

5.6.5.3 Race

Racial networks were formed as a response to the assumption that lucrative networks deliberately excluded them having struggled to get established with a small part of the sample positing that blacks were not capable of unity as a potential reason. The sentiment was not widely shared by the participants, but what has emerged was the validity of the sentiment that there are networks based on race in the industry and they exclude blacks economically.

RFO2 “They think you're trying to find a way of robbing them. You know, it's just this thing of black networking, it doesn't work. We just don't have it as [black people].”

5.6.5.4 Fronting

The RFOs were often invited into networks to supply the assets to a formation and their racial profile according to the B-BBEE regulations, however the RFOs were only compensated as subcontractors and their credentials and ownership stake in the business that they forego are their rents for access into the network.

RFO12 “Let's go into a tender process where we want a black company and then a black company markets other companies to sub[contract] under them where white companies are now taking black people somewhere fronting with them. Some were taking black people and maybe a white guy will have a

black person that he trusts and he had company and then they would get the BEE scores.”

5.6.5 Summary of Findings of Research Question Four

This question sought to establish whether weak, intermediate or strong ties were required by SMME RFOs to support access to sustainable business opportunities. The results of this enquiry were that there were varied ties strengths that provide lucrative opportunities for RFOs, but what was consistently coming out was that most RFOs were not in power positions within those networks and tended to get exploited. It also emerged that a new dimension was emerging with the hosting of network brokerage on social media platforms which may have introduced a new element to the transience of networks with more social distance being simultaneously provided with wide reach on the platforms. What had been formal brokerage platforms on a subscription model with high infrastructure costs were being hosted cheaply on social media platforms like Facebook and Whatsapp and rents are charged for access. The impact of social media platforms was a structural element of social network brokerage was an interesting future research topic.

5.7 Conclusion

This chapter has been a presentation of the results from the semi-structured qualitative research of the social network brokerage structures and processes prevalent in SMME RFO that affect the ability of those entrepreneurs to sustainably access business opportunities. The results showed that RFOs were aware of the social network brokerage as the main source of business development opportunities. They knew behaviours expected of them to gain access, the rents that must be paid for access, the rules that govern the behaviour of members, and the consequences of not abiding by the rules.

The results showed that in the RFOs being aware of network structures that were prevalent in the industry, but they were not aware of how they are structured, their role within the network or even that they are a part of a network due to their engagement. As an alter, meaning the dimensions of their engagement may be dominated by a fleeting period and minimal benefits accruing to them, versus the other network members who were to be exploited to generate benefit to the network actor. The dominant party in the network, who acted as the broker, was free to manipulate the flow and level of information shared and its timing to suit their objectives which was the key aspect of forming, maintaining and exploiting a network's structure. The RFOs did not always recognise the networks they were

united into for a short period and only recognise those where they were part of closed networks as valid or productive.

From a behavioural perspective of social network brokerage, the results showed that most of the brokerage that occurred in the industry was the *tertius gaudens* and to a lesser extent *divide et impera* where the brokers acted in their self-interest in the open market utilising the strength of weak ties to form fleeting networks that they could control the flow of information in and exploited. The RFOs were engaged in those networks as alters who supply the means of transaction which are their fleet and expertise, but did not make a fair share of the profits. For RFOs, closed networks where the main parameter governing their formation was inclusion, for example ESD programmes, were the spaces where RFOs benefited the most. Those networks were only in existence for the period of the regulated transformation spend and once the network was reopened to the normal market competition, the RFOs who were benefiting from that closure are not able to compete.

The results also showed that there were clear and known criteria that were required of RFOs to participate in the lucrative brokerage networks besides the provision of fleet or services as an unaware alter. The payment of rents was one alternative other than becoming a broker themselves for the RFOs to secure their position within a network and improve the advantage that accrues to them for their involvement. The rents that were paid by the RFOs could be dressed up in many ways and could be *ex-ante* or *ex-post* depending on what the moral flexibility of the network members involved allowed, among other considerations like legality. A mention was made of an honorarium as a financial show of gratitude that was not linked to an obligation therefore supposedly precluding it from being bribery, there was also mention of bribery being the norm in securing profitable network positions from *tertius gaudens* and *divide et impera* actors inside the customer, financial institutions and network brokerage actions. Owner's desperation to use idle assets were evidenced as forcing RFOs to engage in corruption.

A look at the optimal strength of ties that are required to sustain the business viability of SMME RFOs was researched and it emerged from the evidence that a range of tie strength resulted in some form of benefit accruing from it. Weak ties in action in an open network did provide novel information and opportunities more often than the opportunities provided by closed networks of close social relationships. Even though the weak ties were more profitable, however, the formation of them being by brokers and benefitting asset-free and low overhead-keeping brokers, meant that those opportunities were treated with disdain and were less preferred to the less profitable

though more stable closed networks. RFOs gave evidence that they begrudgingly ventured out into open networks for opportunities when there were no other choices for them.

The advent of social media platforms has reduced the barrier to establish far-reaching networks with even weaker ties which was a trend that RFOs looked at with little enthusiasm. Future social network brokerage research will be enriched by including the influence of social network platforms on the structure and behaviour of players within social networks. The chapter that follows will discuss the results presented in this chapter considering the research question and the literature review that was presented in chapter two.

Chapter: 6. Discussion of Results

6.1 Introduction

This study aimed to build on the literature on social network brokerage structures and processes by exploring their prevalence in the RFO industry in South Africa that affect the ability of SMME RFOs to access sustainable business opportunities. This chapter follows on from the presentation of the semi-structured interview research results in chapter five with a detailed discussion and a comparison to the literature outlined in chapter two. The format of the chapter follows the chronological order of the research questions presented in chapter three and the results presented in chapter five with their relevant subsections. To contrast and compare the results of this study to the extant literature presented in chapter two, each research question is discussed according to the data collected in response to it, how it relates to the literature on the subject, and then considers the outcomes and the implications to derive a conclusion based on the research question.

6.2 Discussion of Research Question One

What form is the social network brokerage structure for SMME RFOs?

The results of research question one show that RFOs are aware of social networks as sources of information for business development, however, they are not aware of the structure of the social networks they participate in, because it is being concealed from them (Iorio, 2022). They all consider the brokers, who are the main actors in the industry responsible for social network brokerage and business development, as outside of their networks which they only consider as their closed network of long-standing social relationships. As intended by their structural hole brokerage and tertius gaudens behaviours, the structure prevalent in the RFO industry favours the brokers as the main beneficiaries of the business opportunities presented by the industry (Kent et al., 2016). This research enhances the literature on the structural perspective of social network brokerage versus the behavioural perspective. The discussion of this research question follows the chronology of the themes as they appeared in the presentation of results after the analysis phase.

6.2.1 Network Brokerage Structure and Behaviour Prevalent for SMME RFOs

The data presented shows that all the participants are aware of the concept of social networks and consider them to be key to building a sustainable business. It also shows that they consider the networks that they are part of to be informal because they form naturally out of kinship (Ferguson, 2017). The idea of informality is

cemented by the fact that there are no rents required to be paid for membership and joining is based on social capital and relationships (Burt & Soda, 2021). Most participants consider networks based on friendship where there are no stated obligations to be informal and socially valuable. The data also affirmed that the participants are not aware that they are continually engaged in network brokerage processes due to the fleeting nature of open network engagements where they are treated as alters and deliberately not made aware that they form an integral part of a network's processes, and understandably consider those networks to be less valuable to them and their business sustainability.

On a high level, the formations above are formed upon network structures which are the collection of the individuals that the RFOs collaborate with, and whether the collaboration favours the individuals involved equally is inconsequential to the application of the rule because the network structure only must consist of the contacts, content, and behaviours (Soda et al., 2021). Social capital accruals like trust, reciprocity and shared benefits flow within networks through the social bonds formed by exchange relationships within the network and the continued performance of expected behaviours which encourages RFOs to form networks with individuals who are in the same industry (Liljenberg, 2005).

The theory of social capital (Coleman, 1988) promotes the actions of a *tertius iungens* broker in closed networks who join networks and acts as a bonding agent for the alters for the benefit of the network. An extension of social capital accruals within a closed network, which is typical, is considered for open networks where social capital accrues to actors in an open network and can be more valuable overall to all individuals within the network at the discretion of the actor in a triad formation who typically acts as a *tertius gaudens* who collects all the benefits for themselves and controls the flow of information (Burt, 1992).

From the data presented in the research results and the literature review, it appears that the structure that is prevalent in SMME RFOs is a combination of closed and open networks with open networks having access to novel information that is valuable and not accessible to individuals in closed networks likely in a deliberate action to accrue most of the advantage to network actors. Brokers are the network actors who, having recognised, created and maintain the structural holes that exist between the RFOs and the customer, broker those holes and generate exclusive advantage to themselves. The SMME RFOs are left with whatever benefit is generated from their position as a resource in the open. Social capital then flows to them for that action and their utility to the network, however if the RFOs do not

recognise the value in open networks and the valuable and novel information they can provide, they remain operating from scant opportunities. The brokers who control the transactions are perceived as as. The results support the notions that there is a relationship between the form of network structure (Burt, 1992) and the actor's behaviours (Kent et al., 2016) as determinants of brokerage outcomes with the structure needing to be in place for the brokerage behaviour to occur.

6.2.2 Formality of Brokers Prevalent in the RFO Industry

Eleven of the twelve participants reported that becoming a broker was incidental for anyone and most of them consider that any broker is likely a failed RFO and brokerage is essentially looked at as undesirable, unnecessary and destructive to the industry. Having acknowledged the existence of networks in the previous section, the RFOs considering brokers as unnecessary betrays a lack of understanding of the structure of network producing brokerage opportunities and brokers (Burt, 1992). The lack of RFOs understanding gives an advantage to the brokers to dictate how networks are formed and who are the actors, alters and beneficiaries of those networks. The RFOs participate in networks whether they desire to or are aware of them or not and whether the networks are closed or open, but if there are structural holes and broker behaviour that directs the flow of benefits the, social network brokerage persists (Obstfeld et al., 2014). Due to their negative stance towards brokerage, RFOs are not able to recognise opportunities in brokerage, especially in open networks that offer the most value, except when they incidentally exhibit brokerage behaviour themselves to fulfil customer requirements by inviting other RFOs to help fulfil an order that requires more vehicles than they can access in their closed network. The consequence of the RFOs' stance towards brokers means they do not consider brokerage as a source of business and reject valuable opportunities that could sustain them and only engage brokers during desperate times.

The participants also reported a general distrust of brokers due to their self-serving behaviour and the seemingly transitory nature of their business structure because they do not seem to own any assets or permanent offices that they operate from. Soda et al. (2021) state that social capital and benefits accrue to actors within a network due to trust that is generated through engagements between individuals, however for brokers, the lack of trust does not mean benefits do not accrue to them, because the brokerage activity, although not desirable for RFOs undeniably generates benefits to the network. The brokers do not require goodwill with the RFOs to execute their business transaction, they benefit from holding a lot of weak tie relationships with many RFOs which is desirable for them and keeps the competitive

nature of open networks that generates the most benefit for the RFOs. Granovetter (1983) states that weak tie-strength relationships are not motivated to involve themselves in networks with stronger ties because of the dilution that brings to the novelty of the information provided by those ties and the benefits that are derived from them. The implications for the RFOs on the level of strength of the ties with the brokers is that strengthening the relationship with the RFOs results in less profit for the brokers and is therefore undesirable. Brokers maintain an arm's length relationship to RFOs for profit.

The RFOs lamented the market's instability which affects long term capacity and revenue planning due to the activity of brokers who they see as parasite in the value chain who steal their profits. In the industry, the brokers benefit from structural hole brokerage and the ability to conceal their information, profile and opportunities through the control of information within open networks as discussed by Burt (1992). This gives the brokers the ability to dictate terms of participation and pricing which gives them the power to dictate the structure of the networks that are formed. The brokers act in their self-interest as *tertius gaudens* actors who are the third that benefits (Simmel, 1950). The RFOs are price takers in the industry and do not have their destiny in their hands. All participants in the industry suffer from the natural demand fluctuations, however the brokers can determine how much they earn from the transactions. RFOs have the overhead cost of the asset and the operational cost to service and cannot dictate pricing, therefore the sustainability of their businesses is not within their control.

Brokers drive the costs of the services down by engaging their vast networks to find willing sellers of the services at the price desirable to the customers. The action of the brokers positioning themselves as low-cost options creates a barrier between the customer and the RFOs willing to sell their services at the lowest price through a system of RFO relationships that they control (Grosser et al., 2019). Besides the need to broker access to funding, which is discussed later in this chapter, RFOs together with other South African entrepreneurs only have access to ZAR 230 billion in funding options which represents a shortfall of USD 30 billion to meet the needs of the market (FinMark Trust, 2020). The current industry structure means RFOs are not able to control their revenue or fund their business competitiveness, sustainability and growth in the market. This means that brokers will increasingly become the mainstay in the industry operates and result in high SMME RFOs business failures in South Africa.

6.2.3 Business Sourcing Processes

Three processes were given in evidence for business sourcing: firstly, seeking connections in open networks and obtaining business through the strength of weak ties. Secondly, structural hole brokerage by performing rents, and thirdly structural hole brokerage by ESD on behalf of the RFOs. The results are explained by the strength of weak ties theory by Granovetter (1973) that open networks bring novel information and valuable opportunities, and secondly that the structural holes by performing rents which grant access to opportunities are supported by Burt's (1992) theory, and finally that the beneficitation of RFOs through their involvement in closed networks that protect them from the market is supported by the tertius iungens persona discussed by Coleman (1988). The overall consideration is that network benefits flow from the utilisation of privileged information to make optimal business decisions for the network (Lammers et al., 2009). None of the three processes have been expressed by RFOs to be more beneficial than others. However, there is a clear preference for processes that do not include brokers in open networks who are considered exploitative. The implications for RFOs are that they choose less profitable network structures and forego revenue to engage in closer, less sustainable network structures which results in their businesses being unstable.

6.2.3.1 The Process of Business Development by Weak Ties and Open Networks

RFOs report gaining access to business opportunities through a variety of processes including tendering, hearsay and connecting to people through networking. They are indiscriminate to where they source information regarding business opportunities, however, they prefer to engage directly with the customer as a first option which is generally not common to achieve. When business is obtained through networking with casual acquaintances, the RFOs act to maintain those relationships to repeat the benefits that were drawn from the initial engagement.

In the strength of weak ties theory, Granovetter (1973) referred to social ties as having combined dimensions of time, emotional intensity, intimacy and reciprocity. In his revision of the theory ten years later, Granovetter (1983) further asserted the state of weak ties as having a low probability of involvement with other ties thereby assuring their utility in assuring diversity of information that flows. Although the seminal study on tie strength by Granovetter (1973) has a theoretical foundation of network structure he still argued for a process perspective to brokerage claiming that network bridges are a product of weak ties conversely to strong ties which are likely to produce network closure due to the interconnectedness.

What the above means for RFOs is that they initially engage in weak tie strength relationships through their market scanning and those yield valuable information that generates business opportunities from open networks and multiple clusters connected to them, then seeing the utility of that relationship, they try to maintain it and close it off to the market, creating strong ties which have less novel information and generate less business opportunities. It means that RFOs are spending their energy and resources cultivating a relationship that is restructured to be less useful to yielding business opportunities resulting in the RFOs struggling to sustain their business due to them unwittingly spending their business development time on relationships that are no longer optimally structured for the purpose.

6.2.3.2 Process of Structural Hole Brokerage by Rents

All participants in the study acknowledged that corruption is endemic in the industry and the payment of bribes is the norm and they live with the reality of performing rents to obtain business. One of the more common rents is money, essentially paying a bribe to an individual or organisation occupying a structural hole to facilitate the securing of the business opportunity. One of the participants refers to their business development process for the mining category freight involving the routine payment of bribes as a rent to secure the business. The structure of the structural hole brokerage by rents involves the insertion of alters within the network who act on behalf of brokers as a conduit for the bribes and the opportunity flows with the actor who is running the overall network being a connected individual or organisation with privileged information that they trade through their inserted alters.

In the above instance, the broker exhibits *tertius gaudens* behaviour which seeks to accumulate as much of the benefit from the privileged information they possess as possible to enrich themselves at the expense of the alters that are involved in the network processes as observed of such actions by Obstfeld (2005). The selling of business opportunities relies on the action of the *tertius gaudens* assembling the triad network, separating the alters and creating the competitive conditions, beneficitation opportunities and desirable environment to favour them through focusing the engagements of the network by occupying a structural hole and connecting previously distanced alters with non-redundant information (Kent et al., 2016). Utilising privileged knowledge to pit the alters against each other and to optimise personal power and financial benefit over the network is what creates benefits for the broker (Lammers et al., 2009).

The consequences of the brokers' actions above for the RFOs are that they remain shielded from their role as network alters and the networks are kept deliberately open to derive the most benefits for the brokers. The RFOs are prevented from understanding the value of the transaction and cannot set competitive pricing. The purchase of business opportunities through abnormal business development processes raises the cost of sales for them and does not enhance business development skills. This means that SMMEs cannot grow their businesses naturally and compete in the open market due to the prevalence of rents as a form of business development (Jackson, 2014). No value proposition can set RFOs apart in the market, therefore no link exists between how well an RFO executes their work and the growth of their business. The actions of brokers have commoditised the RFO industry through rents (Kent et al., 2016). This is not necessarily a negative development if it emerges from the normal market process of demand and supply. Bribery has whittled down the value of RFO is to the lowest price.

6.2.3.3 The Process of Structural Hole Brokerage by ESD

All the participants in the study reported a positive orientation to the process of sourcing business opportunities through ESD programmes. Coca-Cola, ESKOM, Lafarge and Anheuser-Busch Inbev are among the organisations named to run good ESD programmes for RFOs where the RFO is given a set contract and a level of volume that is sustainable for their business and they operate for the duration of the contract depending on certain performance criteria and rates that are agreed at the initiation of the contract.

The ESD programmes employ screening to appoint RFOs to the closed network where they will operate with the organisation as the actor. The ESD programme is a closed network that needs to develop trust and reputation among the participants for the programme to work (Burt et al., 2013). The screening and training process is designed to accrue the required levels of the antecedents of dense immediately without an enduring relationship (Liljenberg, 2005). In the formation, structuring and maintenance of the ESD programme, the organisation forming it acts as a *tertius gaudens* broker in that the closed network that is formed is designed to benefit their organisation (Simmel, 1950). The RFOs benefit incidentally through the programme that primarily benefits the organisation running it through TAX benefit designated by the B-BBEE Act to promote the inclusion of SMMEs in the economic activity of the country, hence the behaviour of the organisation being more akin to a *tertius gaudens* who is the one who benefits than any other behavioural posture mentioned in the literature review. The separated collaborators in this case are the government who

developed the B-BBEE ACT and the RFOs who are meant to benefit from it (Soda et al., 2021).

The significance ESD business development is that it is superficial, because it exists outside of the open market and competition. This does not negate its necessary limited effectiveness and short-term benefits for SMMEs. The ESD programmes address access to the market, but the term is too short as the support the programmes provide is limited to the value of the turnover that is required to be spent by the B-BBEE Act. Continuity is the biggest flaw exposed by the research regarding these programmes as the incubation period is not last long enough to take the RFOs past the five years it usually takes for 70 percent of SMMEs to fail (Bushe, 2019). The ESD programmes are unsustainable because they can only work in a closed outside the open market which outprices the SMME RFOs. The sustainability of the ESD relationships is beholden to the budget.

6.2.4 Optimal Network Strength for Business Sourcing

The RFOs gave evidence that they participate in both strong tie strength and weak tie strength networks to generate business opportunities. Both types of networks were found to be useful in providing profitable opportunities, however weak tie strength provides more frequent opportunities than strong tie strength networks. Strong ties are used to canvas within their social circles and weak ties are used to canvas more casual relationships with connections to many clusters. Quintane and Camabuci (2016) established that weak ties are more profitable than strong ties due to the novel information they provide and access to various clusters. The ramifications of each type of tie strength on the ability of the RFOs to generate lucrative business opportunities are discussed below.

6.2.4.1 The Strong Network Tie-Strength Brokerage Process

The results of the participants' responses to this question reveal that RFOs engage with weak and strong networks depending on the amount of business opportunities they have. When there are ample business opportunities, RFOs tend to keep their engagements to strong tie-strength networks, however, when opportunities are scant, the RFOs tend to extend their business sourcing engagements outside their strong ties into weak tie-strength relationships. It requires that the opportunities within their immediate networks are exhausted before they typically venture outside them. Two RFOs also expressed that they typically exclusively assist other black RFOs, who are their strong network members, as a priority to everyone else.

Obstfeld et al. (2014) posited that strong tie-strength networks harbour conditions that keep the members from needing to move outside of the network for long periods if there are ample resources available, therefore RFOs are conditioned within those networks to be satisfied with servicing the members and cultivating strong relationships because of this. However, the same scholars also confirm that strong ties increase the homogeneity of information flowing between the various clusters and lower its utility for the novelty and quality of the access and opportunities it presents. The disadvantage of strong networks is the homogeneity that sets into the logic structures which orientates the network away from the desire for new information (Soda et al., 2021).

The RFOs are presented with limited opportunities in scarce times, but good opportunities in bountiful times which means the structure of their network is not driven by their strategy, but rather by their environment. This leaves the RFOs exposed to the fluctuations in the market and they not having enough capital to see through the low times is a risk to business sustainability. Relationships within strong networks are closer which is not necessarily great for risk mitigation against market fluctuations for the whole network. Looking to weak tie strength networks is a form of risk management for RFOs which they are not aware of. RFOs need to spread their risk to have better odds of surviving market fluctuations (Kim & Choi, 2018).

6.2.4.2 The Weak Network Tie-Strength Brokerage Perspective

The evidence provided by RFOs is that open networks with weak ties provide more reliable and novel information regarding the location of business opportunities. Open networks ensure that RFOs can access more business opportunities than can be accessed within closed networks with strong ties. The only negative perception of open networks with weak ties to the RFOs is the prevalence of broker activity within those networks which reduces the value of the business opportunities as the brokers are seen to take the largest share of profit.

Granovetter (1983) posited that strong tie-strength networks insulate alters from novel information that provides valuable opportunities and present easy access of the alters to clusters that offer more valuable information. Weak tie-strength open networks on the other hand provide more opportunities due to the many different ties that can be accessed for opportunities (Kim & Choi, 2018). The need for alters in an open network to confirm how brokers are established, for example through their titles and the reputation of the organisation they represent, is due to the need for credibility in establishing networks which is required due to the transience of open networks

and the lack of time to develop trust through tenure within the network (Wang et al., 2018). In the absence of trust, alters are reluctant to invest in the establishment of the network which denies them valuable opportunities.

The impact of the above on the sustainability of RFOs businesses is that they feel more comfortable within the less profitable closed networks with strong ties and are happy to conduct business within them. However, when it comes to open networks which offer more value and sustainability, the RFOs are reluctant to engage and invest in the relationship due to the proliferation of unscrupulous activity of brokers which has caused trust in them to diminish. RFOs end up limiting their engagement to their strong networks and only venture out of those in desperate times which limits their ability to earn sustainably.

6.2.5 Business Sourcing Information Novelty and Reliability

The RFOs lamented the lack of government oversight in the industry and the lack of structure in how the industry is administered. The RFOs perceive that there are institutional voids that prevent them from trusting the reliability of any information regarding the industry. All the information they have access to comes from individuals who are competing with them for profit like brokers and other for-profit associations. The RFOs report corruption and lawlessness being the norm in the industry due to a lack of enforcement of the existing regulations and a lack of development of regulations that address contemporary industry issues. Bribery is accepted as a common form of access to novel and more reliable information.

It can occur that alters with the same number of contacts within the same network can have different outcomes of information novelty due to how those connections connect to each other (Burt et al., 2013). If all the alters connections are connected it limits the novelty of the information, however, if the connections are not exclusively connected to each other within the network, the novelty of the information increases (Borgatti & Halgin, 2011). A higher diversity of connections produces information heterogeneity and valuable opportunities.

RFOs require heterogeneous information so they can receive diverse opportunities from different sources which will provide a varied set of business sources. However, the market is led by brokers who position themselves to broker structural holes so there is a rent to be paid for information heterogeneity (Soda et al., 2021). To get around this, the RFOs need to widen their networks, increase the number of their contacts and connect to disconnected clusters to increase the occasions they receive information about business opportunities. Government intervention is required to

provide structure in the industry and provide information regarding opportunities in the industry, prevailing market rate ranges and reliability of brokers within the industry. These actions should support the industry to continue as an open market, but with structure and lower corruption and RFOs exploitation, otherwise the economic transformation through SMMEs will not be realised.

6.2.6 Research Question One Discussion Summary

The RFOs confirmed their awareness of social networks prevalent in the industry and their structures, processes and participants. They also presented evidence of the challenges they face in establishing themselves within the industry and competing with the larger RFOs and brokers within closed and open networks. The RFOs provided insight into the struggles to compete in a market dominated by brokers and the utility of heterogeneous versus homogeneous information regarding business opportunities. Trust and reputation were the key risks preventing RFOs from engaging with brokers openly which is required for network engagements which results in their keeping to engagements with their less profitable closed networks. The industry has a challenge of incorporating SMMEs into the mainstream economy and the ESD period is currently not long enough to carry SMMEs over the five-year threshold that would increase the chance of their survival. The challenge remains on how to move the industry from a commoditised one driven by short-sighted brokers to a value-driven industry dominated by reliable and sustainable RFOs.

6.3 Discussion of Research Question Two

From a behavioural social network brokerage perspective, what is the profile of the typical network hole brokers active in brokering access to business opportunities for SMME RFOs?

This research question sought to reveal the type of brokerage behaviour exhibited by the actors within the industry. The results showed that the industry is predominantly run on *tertius gaudens* and *tertius iungens* brokerage. Brokerage behaviour is on a spectrum for the RFOs who engage in different types of brokerage according to the network and industry conditions and available opportunities. Only when it is beneficial to an actor do they engage in *tertius iungens* behaviour and close the market to external actors. Evidence was also provided for *divide et impera* behaviour shown by brokers in the industry to keep RFOs from participating in the industry which is a direct threat to the government's NDP 2030 ambition to drive economic transformation partly through the increase in economic participation from SMMEs.

6.3.1 RFOs New Business Development Partnerships

The evidence given by participants was that the proliferation of brokers is coming from the minerals RFO industry, especially the freight of coal to the harbours which has commoditised freight using side tipper trucks. Most of the behaviours that are extending into the rest of the industry stem from that category of freight. The RFOs noted that brokers seem to have transient businesses within the industry due to their disinclination to invest in assets and traditional business overheads like fleet. Most of the RFOs expressed that they prefer to keep their engagements within closed networks where there is high trust and stability, but acknowledge that their networks are bound by scarcity and the desire to uplift each other because there are typically few opportunities they have access to.

Simmel (1950) stated that brokerage for the greater good of the network and brokerage for the singular benefit of the broker stem from the same in action as they are concerned with the control of information to maintain a dominant power position with the difference being time spent within the network. Self-benefiting brokers (*tertius gaudens*) typically spending a shorter time in a network than those that seek to benefit the whole (*tertius iungens*). Contrary to the structuralist perspective of social network brokerage, dynamic brokerage theory states that social relationships within a dynamic inform brokerage. This means that brokerage is dynamic and changes according to the behaviour of the players in the environment (Mguni, 2019). Tenure is an important factor in closed networks where empathy drives the behaviour of the broker to benefit the whole (Kwon et al., 2020).

The evidence presented above indicates that social network brokerage is a natural phenomenon in social networks and that the behaviour of the RFOs is driven partly by the conditions in the environment. It is driven by the industry's level of opportunities, resources, and the needs of individuals within the network (Jackson, 2014). RFOs will collaborate when they can as the default position and will venture outside of the network only when there are conditions that threaten their business's sustainability. RFOs themselves easily exhibit *tertius gaudens* brokerage behaviours when the opportunities present themselves and some state that they would be happy to assume those behaviours as their default position. The repercussions for the industry for success or profit experienced by RFOs during these infrequent forays into brokerage will result in the default structure of RFOs shifting to being brokers and the commodification of the RFO industry and redress in establishing sustainable SMMEs in RFO.

6.3.2 RFOs' Experience with Mentorship

It emerged that there are two types of mentorship that prevail; one is the mentorship from an individual with tenure in the industry who gives guidance, and the other is mentorship within a closed network through ESD. The alternative outcome, which is important to mention due to its significance, is that most RFOs do not have mentors who assist them. The actions of the broker are important to the outcomes of network processes and the centering of the broker is a structural foundation of the brokerage process (Burt, 2012). Mentors can play structural brokerage roles as connections to valuable information.

6.3.2.1 Mentorship Perspective

Three RFOs confirmed having formal and sustained mentorship relationships with other RFOs who have been in the industry for longer than them. The one mentorship programme was a subscription which provided a business starter pack and a promise to support the RFOs growth, and the others were RFOs who were still operational. The two RFOs mentors offered unique insights regarding pitfalls that the new RFOs should avoid, but only one offered connections to business opportunities. The literature of brokerage emphasises the behaviour moderating effect of tenure, culture and seniority on the brokerage relationship between mentors and their mentees, the moderators affect the willingness of mentors to give advice and the content of the advice that is given (Soda et al., 2018). Experienced RFOs require the behavioural moderator conditions to be met for the mentorship relationship to form and dictate the content of the mentorship. Seldom is mentorship extended to RFOs. Strong information flow between networks members depict the frequency of sharing of information which is congruent to the potential value that can be drawn from the information flow (Burt, 2005). Good mentorship relationships require strong information flow that represents a commitment to structural hole brokerage and distinguish a mentorship relationship to mere information sharing (Burt et al., 2013).

RFOs benefit from formal mentorship relationships that provide novel information whether it is for business development or management and maintenance of fleet. All forms of information are welcome, however the information most converted concerns available business opportunities and that information is available from only a few individual mentors. A formal mentorship programme is missing and it should be the remit of the DSBD to provide a solution for this issue or SMMEs will continue to fail.

6.3.2.2 Lack of Mentors and the Weak Ties Perspective

Nine of the RFOs did not have a mentor within the industry. Some expressed that a mentor would be helpful, but they had not found anyone who is willing to dedicate themselves to mentoring RFOs. It is more common to find networks of RFOs who are willing to work together. There is also a lack of trust from new RFOs in RFOs with more tenure and fear that they may be exploited. The principle applied by the RFOs in their orientation away from dedicated mentorship relationships and towards the open market related to Granovetter's (1983) assertion that orientation towards open networks reduces the risk of information homogeneity which could be experienced through a dedicated mentorship relationship. The safer option is to spread the risk over diverse sources of information which provide a lower possibility of targeting and exploitation, and increase the information novelty and beneficial opportunities (Lammers et al., 2009).

The benefit of being denied mentorship for the RFOs is that they were forced to seek information from many different sources which increases the potential for them to obtain novel, valuable information for business development. The searching process also allowed RFOs to access contacts with many clusters which benefited them through the benefits of weak tie-strength information heterogeneity. In theory, the RFOs gained access to many clusters and networks which should give them many opportunities. It does not inspire confidence in the potential for growth or economic transformation for the future of SMMEs in the RFO industry.

6.3.2.3 The ESD Brokerage Perspective

As stated in previous sections within this chapter, ESD was reported as the most supportive form of social network brokerage through mentorship. It was considered the best form of mentorship, or incubation as is commonly named within the industry, for RFOs to be engaged in. The ESD programmes were so successful because they primarily benefited the organisation through the incentive and the organisation, acting as *tertius gaudens*, implements these beneficial programmes to the RFO for their benefit (Burt, 1992). There was no better fitting alternative brokerage theoretical perspective that would confirm the actions of the organisation as acts of good intentions. The closest orientation to that hypothesis would be the behaviour of a *tertius iungens* in a form of non-participatory mediator (Simmel, 1950), but that would require the *tertius iungens* to be passive (Faist, 2014), whereas in the ESD programmes example the organisation was the broker who ran the network and was

the one who benefited the most, the actual iungens in this scenario was most probably the DSBD responsible for implementing the B-BBEE Act.

The only downsides to the ESD programmes are their span of existence and the limited revenue required for large companies to spend on SMMEs to foster inclusion into the economy. The interventions can be described as half measures at best and are not obtaining the desired effect on the industry. They manage to keep brokers out of the network which is beneficial and should inform the authorities of their potential utility in achieving the intended objectives.

6.3.3 RFOs Mentoring of Others

The evidence revealed three perspectives to mentoring others. They were motivated by the RFOs own business development needs, their orientation towards helping others, and the confidence that the behaviour they display in helping others would be reciprocated. Even though opportunities can be spotted in the industry there is still a need for an action on behalf of an individual for the benefits to accrue to them, therefore brokerage action is a necessary activity for benefits to flow in a network. The distinction between the different types of brokerage action is who gains benefits from the brokerage action (Grosser et al., 2019). The primary reason for RFOs participating in the market is to make a profit (Edmans, 2023). This ensures their continued participation in the market. The RFOs have prioritised their continued participation in the market over assisting others to participate in the market and claim that they will assist once they have established themselves. There are no special implications for this choice by the RFOs as the market efficiency should determine the price and who survives for it to be efficient (Ghazani & Ebrahimi, 2019). RFO network brokerage did not seem to follow the laws of economics exactly.

6.3.3.1 Failed Tertius Gaudens Perspective

The data showed that RFOs consider the market to be generally open with most opportunities coming from casual contacts and has a prevalence of broker activity. Those few RFOs who have received it find brokerage services from mentors beneficial. Two RFOs spoke of extending mentorship to newer RFOs and both have not had positive experiences with it. They report that giving the information to brokers which may not be immediately beneficial has resulted in them being burdened with the failure of the mentees and have not received any benefit from the engagements so they terminated the mentorship relationships.

According to Kranton and Minehart (2001) networks emerge to pool risk and uncertainty to increase opportunities of success in the market for network members. Forming a network that is not beneficial to network members in those key factors of addressing risk and increasing opportunity defeats the purpose. The role of the RFOs as a mentor most likely intended to exhibit the arbitrator tertius iungens who makes obligatory decisions on behalf of the two alters in the network which gives them a high level of responsibility and the perceived obligation of success of the network (Faist, 2014). The consequences of the data and the literature on the RFOs mentorship of other in the market is that RFOs who are starting up cannot expect to receive helpful information regarding the industry and being connected to valuable business opportunities by RFOs with tenure because those businesses first must struggle to establish themselves before they can or be expected to assist others. For a sector which is supposed to be a priority for the NDP, there is a lack of substantial support for funding requirements that would allow the RFOs to sustain their businesses and potentially create opportunities for mentorship and industry transformation progress.

6.3.3.2 Self-Preservation Perspective

The data provided by the two RFOs who confirmed that they do not extend mentorship services to any other business owners and offered further clarification when prompted candidly stated that the reason they are not able to mentor other RFOs was that they were too consumed with establishing and sustaining their own operations. The more elucidating response from one RFO was that he considered himself ill-equipped to mentor another RFO as they consider their information to not yet be sufficient to aid another RFO since it had not provided the sustainability in their business to prove its efficacy. Exchange of communication and information are considered the main resources in social networks and information is a very valuable resource in social network brokerage (Kent et al., 2016).

Examining the data against the literature, it is evident that the RFOs in the industry do not consider themselves as possessing the information and network resources that are required to sustain themselves let alone other RFOs. They feel bankrupt of resources to give at this stage and would rather spend their time generating those information resources for themselves as a priority than offering mentorship with what they consider incomplete information (Kim & Choi, 2018). The implications for SMMEs is that this maintains the fragmentation in the industry that has been offered as some of the evidence in this study to elucidate some of the issue that prevent knowledge and opportunity transfer among RFOs which contributes to their failure.

6.3.3.3 ESD Perspective on Mentorship

The data provided showed that only two of the 12 participants reported mentoring RFOs and they are two large enough organisations by turnover to be mandated by the B-BBEE Act to host an ESD programme for the TAX benefits that it provides. The details of ESD mechanisms are discussed in sections 6.2.3.3 and 6.3.2.3 above. The government in this instance is a mediator tertius iungens who has established the Act of law that governs the relationship between the two organisations, but does not get involved in the transaction or influence the decisions made within the network (Simmel, 1950). Being a distance mediator in this relationship for the government is symptomatic of the issue being experienced by the RFOs in that the intention of the B-BBEE Act is not having the desired effect as it only addresses one aspect of the issue of economic transformation for SMMEs. RFOs do not have enough time being sheltered from the competitive market to establish and they lack the capital to operate and buffer themselves against market dynamism.

6.3.4 RFOs Experiences with Brokers Engagements for Business Development

The data provided by the participants revealed that brokerage was becoming increasingly pervasive. Some RFOs saw an opportunity in brokerage and some regarded it as a force to disrupt the industry irreparably. All participants reported having knowledge of brokers and their processes even though most RFOs did not utilise brokers as a form of business development. Three perspectives emerged from the themes of the data collected; firstly, RFOs can act as tertius gaudens brokers who attempt to monopolise on all the available opportunities at the expense of all other participants in the network. Secondly, RFOs can act as tertius iungens who obtain opportunities to benefit their whole network, and finally, RFOs can act as divide et impera agents who construct and maintain structural holes for exploitation.

The factors that influenced the outcome of brokerage processes included information heterogeneity, asymmetry and complexity which all need to be at the appropriate level for informed, detailed and nuanced responses to available opportunities (Kwon et al., 2020). Market dynamism asymmetry also adversely affects the ability of businesses to align their offering to the needs of the market at the right time to get the maximum benefit from their offer (Pooe, 2016). Brokerage offers the optimal responsiveness to dynamic market requirements to adjust to resolve asymmetry due to the transient and wide ranging nature of the resources that it can assemble to respond to the market. The RFO market being currently driven by high volatility offers conditions exclusively optimal for brokers to service the market especially in the light

of changing international minerals demand conditions. Traditional RFO models are at risk of being obsolete in the light of the dynamism of prevailing demand patterns.

6.3.4.1 Tertius Gaudens Brokerage Behaviour

The data received revealed that RFOs perceive brokers as parasites to the industry rather than beneficial conduits of opportunities. The RFOs consider the brokers to be profiteers who operate to exploit the unwitting customers who assume that everyone involved with the transaction is compensated fairly. About 11 of the participants held a negative opinion of brokers, except the one who identified as a broker and considers it a legitimate business practice. The RFOs felt that brokers stole contracts with customers which were opportunities to sustain their business as financial institutions require them for the RFOs to access funding for funds for their business sustainability and growth. This made the existence of brokers, who do not generally seek to own any assets, a pestilence to RFOs and what they commonly identified as the cause of the failure of most RFOs in the industry. They specifically lamented that the brokers take no responsibility for the operational expenditure which is what hamstrung the RFOs ability to execute the operations and push them to engage in limitedly profitable business to cover operational costs.

Tertius gaudens behaviour involves the maintaining of structural holes to be exploited for individual gain of the broker. The information is made available by keeping non-redundant alters from connecting and developing the information jointly for their mutual benefit in a dyad (Salvetat & Géraudel, 2012). As stated previously in chapter two, the connection of the alters kills the triad, negates its existence, and terminates the need for the broker and their tertius gaudens' hold over the network (Lammers et al., 2009). The actions of the broker in keeping alters with non-redundant information separate for their own benefit does not require the development of trust which is usually an antecedent of the formation of an economically beneficial network due to the trust that is assumed to be required for a connection to be formed and value to be generated from it (Grosser et al., 2019). Brokers achieve this by concealing their identity from the alters and keeping them separate until the transaction is concluded in their favour (Kwon et al., 2020).

RFOs struggle to compete in an open market with no capital and build closed networks or clusters they can go to market with. As undesired as they are, brokers are thriving in the market because of the commoditisation of the service which is driven by customers demand for lower prices and the prevalence of RFOs with sunk costs who will engage in transactions with the brokers to recover any of the

operational costs. The implications for the industry is the erosion of value generating RFOs within the industry and the transfer of the value to organisations which are essentially outside the RFO industry who own capital, not RFOs who build RFO assets. For the DSBD it is likely that opportunities to fund SMMEs to function within the industry for economic transformation are declining and the department needs to look elsewhere soon for other opportunities of transformation to support as the planned interventions may come too late for this industry.

6.3.4.2 Tertius Iungens Behaviour

The participants in the study reported that due to the negative experiences they have had with brokers and their reputation, they are disinclined to engage with them and rather recoil into the security of their closed networks. Although less profitable this was a safer option. The preferred brokerage relationship is a tertius iungens who establishes brokerage relationships for the benefit of their entire network (Kent et al., 2016). The broker behaviour of tertius gaudens has made the RFOs recognise that they are only serving the brokers in forming business relationships with them and at time unwittingly pay into the transaction by accepting unprofitable work which they only realise in retrospect (Soda et al., 2018). The coordinator tertius iungens behaviour of a broker within a closed network prioritises the benefit of all participants in the network with the context of brokerage being in a closed network it makes the actor a local broker who is concerned with closed network benefit (Gould & Fernandez, 1989).

The RFOs are increasingly limited to relationships within their closed network to de-risk their businesses and maintain some semblance of business continuity. It is not an action of the RFOs choosing to stay within their networks, but a response to the high level of exploitation by the brokers in the industry. There were no reported government interventions to legislate for the level of brokerage in the market and cost was left as the main determinant of market outcomes which is detrimental to the RFOs sustainability as an implication for this degradation of the traditional RFO industry.

6.3.4.3 Divide et Impera Behaviour

The most divisive members of the RFO industry are the criminals and scammers who have found positions among the brokers, due to the legitimate actions of brokers requiring a high level of trust from the RFOs to form networks with them, who defraud the RFOs and customers of their effort and products. Their criminal actions were combined with what were considered the brokers' unscrupulous business behaviour

to cement a negative image of brokers. Additional to the negative experiences of RFOs with brokers was the incorporation of race as a criterion used to access or reject membership requests of RFOs in the industry who gave evidence that race was used as a selection criterion. Normal preference is given to network members, but the network already included racial discrimination at its formation and resulted in preferential economic treatment by race.

The first mover advantage of a divide et impera behavioural orientation means that the strategy for engagement and discrimination is set before the network is formed and the alters in the network can realise they are engaged in a network to look out for such intentions in the structure to assure that inequality is sown into the foundations of the relationship (Posner, 2010). Divide et impera utility is to subvert the powerful force of unity in a network or a market by promoting differences and placing separations within the alters who have the same interest and would benefit from collaboration like ethnicity, culture, religion or language to sew disharmony in the industry (Faist, 2014).

Having the discrimination designed into the foundations of the networks makes the actions to disenfranchise the RFOs in the industry mechanical. No one within the actor organisations needs to make discriminatory decisions post the formation of the network. They execute against a mandate to keep opportunities to network members as instructed and the discrimination occurs automatically. The ramifications of these actions were the lack of transformation of the industry and the entrenchment of divides between citizens with those who originally held more capital growing it and those who were historically disenfranchised continuing to fail in business in the RFO industry because they do not have the resources to compete.

6.3.5 Research Question Two Discussion Summary

Research question two identified the RFOs orientation towards brokerage in general and brokerage behaviours that were prevalent in the RFO industry in South Africa. The different perspectives of brokerage revolve around the behaviours *tertius gaudens*, *tertius iungens*, *divide et impera* and the opportunities provided by the brokerage through ESD programmes. The RFOs did not consider brokers to be a legitimate part of the industry, but instead consider them a parasite that has developed in the industry due to lack of adequate regulation from the government. The RFOs themselves engaged in social network behaviour when the opportunities present themselves, but did not consider becoming a broker as a desirable business model. Some RFOs have gone as far as to state that no one intends to become a

broker to display how unfathomable they believe becoming a broker is as a career or business choice.

Mentorship was another aspect of brokerage that was considered under this research question. It was found that the participants did not consider mentorship to be brokerage probably due to the occurrence of mentorship in the industry being so infrequent. Only two RFOs presented evidence that they had been mentored in the industry and another two, a different two, stated that they had at a point mentored newer RFOs, but gave it up as it did not provide the benefits that they or the RFOs expected. Advice was proven to be readily available in the industry, but the connecting of mentees to business opportunities did not take place. Most of the RFOs expressed the priority of generating business for themselves as the primary reason not to mentor any other RFO. They conveyed that there was a desperation to be sustainable that did not allow them the resources to share opportunities with other RFOs except when they are part of a shared network with established sources of business or existing reciprocal relationships.

Market dynamism, resource and information asymmetry, and the actions of brokers threaten the business model of the traditional RFOs in the industry and RFO as part of the solution to the economic exclusion of previously disadvantaged communities which still prevails. The lack of capital is a factor that has been communicated by RFOs as the reason they are not able to compete effectively in the market resulting in them engaging with brokers at unprofitable rates to earn some operational expenditure to keep the creditors happy. The RFOs give evidence that the prevalence of brokers in the market has made the industry unsustainable for them. The implications of the growing influence of brokers in the market is the further commoditisation of RFO and the entrenchment of the practise of instrumentalisation of RFOs who own fleet by the brokers who maintain low overheads, but hold the monopoly on information regarding valuable business opportunities in the market. The evidence collected pointed to the possibility that the DSBD's SMME funding intervention to give entrepreneurs better access to funds for expenditure for economic transformation may come too late for the RFOs.

6.4 Discussion of Research Question Three

What conditions do SMME RFOs need to meet to participate in the lucrative networks?

Research question three identified the conditions that SMME RFOs need to meet to maintain their participation in networks that offer valuable business opportunities.

The control of the networks is held by tertius gaudens social network brokers who maintain their dominant position in the network through the control of information and create network identities that correlate to their business needs. The benefits that flow to the alters in the network are controlled by the social network brokers and benefits for the RFOs are not guaranteed. What was revealed is that the RFOs represented an asset base for the brokers to activate and deploy according to business requirements foregoing the need for brokers own assets.

6.4.1 Gratitude Shown for Assistance with Business Opportunities

The performance of rents relates to the expectations placed on network members based on how embedded they are in the network which determines the socially accepted rents which are behavioural obligations of members which benefit the network Coleman (1988). The ex-ante or ex-post rents can be the performance of certain behaviours, reciprocity, bribery, an honorarium performed to a network actor who controls it. Relational and structural embeddedness are the two types that are relevant to this question. Relational embeddedness describes a long-standing cohesion and mutual investment between two people, whereas structural embeddedness refers to many shared connections with people (Burt et al. 2013). Embeddedness is important to the discussion of rents because the access to a network and what rents are expected of the RFOs are measured by the level of embeddedness in the network. Rents depending on the requirements of the social network broker preferences. The implications for RFOs is that those who are willing to perform the rents are included in the lucrative networks and those who are not willing, largely stated due to morals, are excluded which threatens the business sustainability.

6.4.1.1 An honorarium as a Performance of Rents

Participants provided evidence of a unique form of rent which is interesting since it is not openly solicited or implied and occurs after the brokerage service has been concluded. A single payment of nominal value after the transaction has concluded, called an honorarium, is supposed to be a gesture of gratitude from the person who has received assistance. The honorarium is specifically monetary which makes it relevant as a rent and the context of the performance resulting in access to valuable networks. The participant was at pains to explain that the payment was not a bribe as it was not solicited by the recipient, nor was it expected. However, when probed further on whether the honorarium may affect the participant obtaining future business from the same individual, he conceded it likely will have a positive effect.

The literature states that the performance of a rent the type of an honorarium is linked to relational embeddedness and is in fact unlikely to be a once off occurrence. Relational embeddedness relates to long-established cohesion between two individuals built on shared history and mutual investment in the relationship akin to culture which (Burt et al. 2013). Social network brokerage outcomes depend on the level of embeddedness as a critical determinant factor in the success of the brokerage action due to the high level of trust among highly embedded network members which increases the ease to distribute complex information which also enhances other complex processes like innovation success (Quintane & Camabuci, 2016)

For an honorarium to be performed it is likely that there is either precedence for the act and the acceptance of it or an expectation of it from a social perspective according to the literature. The ramifications of such actions for RFOs were that not everyone may be aware or part of the culture where such a rent was an acceptable act and it may be construed as corrupt or offensive. Alternatively, for a RFO who were not aware of the social expectation of a performance of such a rent due to low relational embeddedness would be excluded from valuable networks for failing to perform the expected rents of a member of the network. Regardless, the performance of such rents was treacherous for RFOs and exposed them to exclusion from business opportunities. In more explicit forms of exclusion, the honorarium may be used to create a closed network where there is a culture or understanding of a way of work that has benefits to the network members.

6.4.1.2 Reciprocity as a Performance of Rents

This study showed that reciprocity is a possible avenue to perform rents of appreciation for connections to business opportunities. The reciprocity typically occurred within a closed network where individuals were aware of the needs of the others through a relatively high level of embeddedness. There was a clearer understanding that there would be a tit for tat in the transaction, even in open networks. The *tertius gaudens* in one transaction becomes a preferred alter in another transaction to secure them the reciprocal benefits. In closed networks the benefits were first given to network members and there was an expectation that the same would be done by the alter in the future. Evidence was given that considerations would be made to secure RFOs and brokers business where the individuals involved in the transaction had control of the available opportunities.

The actions above speak to Liljenberg (2005) work on social capital theory that posits that social capital accrues to an actor through the forming of social bonds along patterns of exchange between individuals, their networks or clusters which generate obligations of behaviour to cement the trust of which reciprocity is a typical behaviour. Social capital cannot accrue to individuals with redundant ties and the formation of networks which have a behavioural rent of reciprocity required for all parties involved to have non-redundant ties which provide valuable information (Vanhaverbeke et al., 2012). In simple terms, for a reciprocal relationship to form, both sides of the relationship need to have something to trade with each other that is valuable to each other.

The implications for RFOs in the industry is that they need to have something to trade for business opportunities that is of value to brokers or customer representatives outside of the service that they are selling. There's an accrual of benefits that occurs amongst RFOs as they connect each other with sources of business and the expectation is that the benefits are shared within the network or inter cluster where the favour is reciprocated and continually provides value. If a RFO had nothing to trade like a valuable connection that provides sources of business, they would struggle to be included in business networks. The downside is not open to market competition and may not be the most efficient or effective, but be based on benefits outside of the service being provided by the RFOs.

6.4.2 Soliciting Rents

The data showed that there were expectations placed upon most RFOs of performances of appreciation from structural hole brokers especially those who solicited quantified rents from RFOs either ex-ante or ex-post the structural hole brokerage. Typical of a *tertius gaudens* structural hole broker, the actor exploited disconnection among network members, who are the RFOs and the customers, and occupied the dominant power position allowing them to name the price of the rents solicited (Posner et al., 2010).

The moral dilemma arose for RFOs when they considered the payment of rents to facilitate securing business opportunities whether ex-ante or ex-post, but especially ex-post where there was no upfront agreement that a rent would have to be performed. Failure to perform them meant exclusion from the lucrative opportunities and the termination of participation in the network. The dilemma for the RFOs is presented by dependence asymmetry which is a tension that is introduced into the network context due to unequal dependencies between actors and alters where an

actor with resources, like information on business opportunities, uses their dominant power position to impose the performance of rents to them which lowers the performance of the network (Kim & Choi, 2018).

The alternate performance of rents is where an entrepreneurial alter performs rents to an influential broker in their network to disrupt the actions of the unit against the alters organisation. In this instance divide et impera is used to isolate the broker by awarding them business opportunities for their services in quelling the challenge on the alter's organisation. Xypolia (2016) discussed the utility of sowing conflict among otherwise unified alters as a form of securing their position in a network and increasing or taking over the actions of a dominant power. The implications of all three actions are that power is taken then utilised by a dominant broker to determine the structure of the network and how benefits are shared.

6.4.2.1 Ex-Ante Solicitation

This question revealed that the expectation of the payment of bribes to brokers was prevalent in the industry and that the bribes were solicited by value. More than half of the participants reported that bribes were prevalent in the industry as a rent to secure business opportunities and five RFOs gave evidence of direct solicitation of bribes from them directly. The more blatant and perhaps preferable form of solicitation comes prior to the awarding of the business where the broker in open or closed networks, sets the rent of a bribe to conclude the awards. This was considered preferable because it afforded the RFOs the opportunity to consider and make a moral judgement to join or not. The RFOs had been asked for specific amounts paid in instalments at times for the awarding of contracts or the approval of funding applications as required by the RFOs where there is incomplete paperwork to make a loan approval.

The process that cemented the dominant power position of brokers who control closed and open networks was their developing the opportunity from a privileged information ownership position where the brokers go through the process of refining and aggregating information which increases the value of their input and allows them to charge rents for what should be accessible information for everyone (Burt, 2019). The broker relied on their ability to cultivate separation between non-redundant alters as devised by social network brokerage literature as the process to create value for themselves in connecting the network and drawing benefits from their actions (Kwon et al., 2020). The ramifications of these processes are that RFOs rely on brokers for access to opportunities. RFOs are being required to pay high rents for items they

should by right not have to bribe for. A lack of regulation and enforcement in the industry like collusion with bank employees to forge bank statements for loans persists. RFOs report constantly being drawn into morally corrupt actions by their industry to sustain their businesses. As bribery becomes the norm in the industry, it will cause these types of brokerage actions to be entrenched with further moral and legal degradation of the industry and the failure of most SMME RFOs.

6.4.2.2 Ex-Post Solicitation

The ex-post solicitation of a bribe was reported by RFOs who consider it to be even more morally reprehensible because it takes the choice away from the RFOs on whether they want to be part of a morally corrupt network and assumes that they do and awards them the advantage of an aware party to the rent requirements and only communicates them post the performance of the advantage and expects the rents to be performed. RFOs report receiving a call from individuals they likely have never met who solicit bribes for work they have already executed.

The actions of the brokers were akin to the *tertius gaudens* behaviour of concealment of their identity as part of the process to secure advantage directly to themselves as revealed by Kent et al. (2016) in their discussion of the power utilised by brokers to create conditions within networks that favour them through unethical means including misdirection as is evidenced by the RFOs in this case. The RFOs accept business awards without knowing the full requirements of the individual who brokers the opportunity and the communication that solicits the rent positions it as something that has a specific value like ten percent of the contract that is 'owed' to the broker. The broker being in a dominant power position means that they control awareness within the network and can feed information that is useful to their gaining advantage to the alters, but not any that would jeopardise their advantage (Liljenberg, 2005).

"Power is manipulation" (Kent et al., 2016, p.97) emphasises the importance of information and awareness to the processes of a broker and their ability to manipulate the outcomes of the network process to their advantage even against the will of the other network members. In this example, the RFOs felt powerless to resist participating in corrupt activity and if they chose to disengage and report the corruption it may have resulted in personal cost in being implicated in the crimes and loss of income, trust and reciprocation of benefits among members of the social network (Liljenberg, 2005). Once trapped in this form of solicitation, the RFOs felt they had no choice in how to conduct themselves in the absence of the enforcement of regulations in the RFO industry.

6.4.2.3 Application of Divide et Impera Solicitation

Evidence was given by the participants of some activity of business forums in the industry. A business forum is a committee of business people elected by the business community to represent the interests of that community South African Government. (n.d.). RFOs reported that in engaging with business forums to address the lack of meaningful implementation of regulations for economic inclusion, divide et impera strategies were employed by the brokers to sew division within the business forum and disorganised them.

The typical strategy for divide et impera was to award business opportunities to a few vocal business forum leaders to give them something to lose for continued disorder as well which encouraged them to assist in returning order and the status quo. The rents paid was typically a business contract. Obstfeld et al. (2014) observe that the divide et impera gaudens behaviour was introduced as an actor who sews discord to retain or promote their dominant power position and continued to control the form of the social network structure. Within the business forums, the actions of divide et impera had serious consequences and often result in the dissolution or expulsion of those members who are colluding with the established order if exposed.

Only one RFO reported a positive orientation towards business forums through their leadership of one. The ramifications of the industry's orientation towards business forums being negative is that the structural hole brokers with an interest in maintaining the status quo have won for now and the dominant power position will remain with them and they can decide who joins their networks of lucrative business opportunities.

6.4.3 Purchasing Business Opportunities

RFOs reported being explicitly asked for bribes and being penalised by exclusion from the network if they did not pay. Part of the function of a broker was to connect non-redundant clusters by closing structural holes between them and being able to request a rent for the service (Borgatti & Halgin, 2011). Social network brokers in the market exploited the disconnection and inserted themselves as conductors of valuable information from one cluster to another due to the network structure being a source of advantage according to Gulati and Garguilo (1999). It can be inferred that RFOs were drawn into bribery or other corrupt activities unwillingly to comply to network rent obligations which they performed to keep participating in the network.

6.4.3.1 Bribery as a Participation Rent

In addition to the bribery as rents discussed in section 6.4.2 above, another example of bribery provided was mine procurement managers who kept awarding RFOs the same contract until the supply was oversaturated and no longer viable, leaving long queues of trucks outside mines with no material to pick up. The behaviours of the brokers contribute to the corruption of the environment for their primary objective of securing a power position and control the network for their benefit (Simmel, 1950). The *Tertius gaudens* broker can then consolidate their dominant position by regulating the number of participants in the network context as was done by the procurement managers (Salvetat & Géraudel, 2012).

The RFOs stated that they would not be sustainable if they did not pay bribes in the industry these days which is a chilling indictment on the state of the industry. The industry is reported to be suffering as high performing and well-meaning RFOs cannot be distinguished from the rest through performance which creates a superficial business landscape within the industry which drive performance down. Ultimately, purchasing a dominant position in a network which borrows power from the original broker is an unsustainable way for creating dominance because it is not value driven and destructive.

6.4.3.2 Penalties Imposed for Non-Compliance with Performing Rents

Brokers used their privileged access to information to regulate who forms part of the networks which is the benefit first mover advantage. Brokers used their time to structure networks with their connections in strategic places to broker beneficial business opportunities for themselves. Network members who were not preferred by the structural hole broker are penalised for their low embeddedness by being given unprofitable and undesirable parts of the business opportunities to execute. RFOs gave evidence of being given loads and lanes that were unprofitable or got paid less for hauling the same load to the same location. Outsiders were pushed out of networks and replaced with aligned insiders who engaged in the desired behaviours and paid the required rents.

Gould and Fernandez (1989) presented five distinct typologies to describe brokerage roles which are coordinator, itinerant broker, gatekeeper, representative and liaison. These typologies are based on political network formations to explain how politics influences the brokerage role within a network. The applicable brokerage typology to this example is the gatekeeper who is a decision maker for their part of the network and is tasked with regulating the content of the network structure and level of benefits

that flow to certain network members and clusters. The gatekeeper in this instance centres their network's benefit in establishing the network and assures that only those that are part of the network have access to novel information they can use to generate benefits for themselves (Soda et al., 2018).

In the RFO industry, brokers have become gatekeepers that govern who accesses novel information regarding business opportunities by brokering structural holes and maintaining the structure and number of participants to suit their needs. RFOs cannot compete openly in the market for opportunities through their performance or price. They are required to perform the behaviours to be considered if any opportunities for new members exist. Without a free market accessible to SMME RFOs, they will not grow as a segment of the business community and their businesses would die if their operational expenditure runs out before they obtain more new business. The NDP 2030 economic transformation plan relies on the growth of the SMME sector as a vehicle for economic transformation is at risk of becoming another failed iteration of a national development plan even with the SMMEs and Co-operatives Funding Policy (DSBD, 2023).

6.4.4 Level of Satisfaction with The Network Business Sourcing Approach

All but two RFOs expressed negative sentiment towards the network sourcing approach as the primary business development process in the industry. The two are either indifferent or supportive of the process are the representatives or a large customer and the owner of a brokerage company. RFOs cite a complex network of brokers and subcontractors who make it difficult to determine responsibility and accountability as the main reason for finding the process dissatisfactory. They state that communication within the network was very challenging especially due to the need for brokers to protect the valuable information that allowed them to maintain their brokerage positions. Information asymmetry is a source of power for brokers and allows them to maintain control over opportunities by keeping alters with non-redundant information separate (Hahl et al., 2016). The maintaining of the information asymmetry in executing the business transaction is what causes the complexity and turns the reason for the broker's power position into an execution challenge. Brokers were judged to do nothing more than create structural holes by separating RFOs and customers who were theoretically members of the same network so they could draw benefits from the structural hole brokerage (Brass et al., 1998).

There was a strong sentiment that there were racial networks as mentioned in chapter 6.3.4.3 above where preferential treatment was given according to the race of the RFO. Even in becoming a broker and being respected as a business was suspected to stem from white privilege according to the RFOs who express that companies with long tenure in the industry who they referred to as “white companies” were allowed to change their business model to essentially be brokers as they deflected and used assets of smaller RFOs and leased fleet to execute their contract and no one questioned their credibility as brokers even being preferred by the black RFOs themselves over other brokers. Kent et al. (2016) lamented the instrumentalisation of alters in the network in their critique of social network analysis. This study disproves the theory in how it treats alters because, in the case of brokerage in the RFO industry the brokers instrumentalise the RFOs to execute business transactions. Kranton and Minehart’s (2001) view of a network is a pool of demand between buyers and sellers which allows the market to stabilise according to the demand and set fair pricing accordingly. However, in a market with brokers where there is a surplus of suppliers, exploitation is the outcome of the concealment and the creation of demand asymmetry in the market through information control by brokers.

The prevailing entrepreneurial development in the RFO industry is the development of open networks for brokerage with those structures governed and managed by brokers (Soda et al., 2018). Brokerage within closed networks was considered acceptable, but the brokers in open networks were considered parasites who have inserted themselves into the market and created structural holes to occupy. The existence of the structural holes was by design of brokers. A market without brokers is possible, but requires joint action of customers and suppliers joining forces as discussed by Kranton and Minehart (2001) to create a network without them. The industry is being hamstrung by brokers because in their entrepreneurialism, they do not have to reinvest or redistribute a portion of their profits to the market as expenditure. The RFOs who reinvest to grow their businesses do not make enough profit to fund themselves. RFOs need to embrace brokerage survive or seek stricter market regulations, threatening market autonomy.

6.4.5 Research Question Three Discussion Summary

Research question three revealed the conditions that were expected to be met by RFOs to participate in lucrative networks for valuable business opportunities. Structural hole brokerage by actors in the industry who create, maintain and occupy brokerage positions is the key process for gaining access to these networks which

supports the research of multiple scholars (Simmel, 1950; Kranton and Minehart, 2001; Kent et al., 2016). The outcome intimate that the control of rents to be performed to brokers within the social network is the key process by which business opportunities are obtained.

Bribery, under different guises, was given as evidence of the different types of performance of rents to the brokers from different institutions to broker access to business and funding resources. Gould and Fernandez (1989) presented the gatekeeper typology in political networks as a controlling mechanism for access to networks and the regulation of flow of benefits to network members which was supported by the actions of brokers and alters in the execution of their solicitation of rents in exchange for business opportunities.

The RFOs considered the continued hold that brokers have on the industry as heralding the demise of the traditional RFO business model of utilising owned assets to execute operations for long-standing customers in a closed network of mutual, if not equal, benefit. The brokers manipulated the structure of the network to favour the control of the network through a dominant power position for their sole benefit (Soda et al., 2018). Brokers have succeeded in maintaining information asymmetry within the industry which they exploited for their continued benefit by keeping business opportunities concealed (Brass et al., 1998).

RFOs also reported a racial undertone to some of the conditions that were to be met for them to be accepted into some networks of which ethnicity was one insurmountable condition they claimed kept them from not only participation in lucrative business opportunities, but also sometimes prejudices them in execution of their business activities like being paid different rates. Posner (2010) identified first mover advantage as a process which advantages brokers in the formation of networks which are designed align their desired structural conditions and are executed according to the rents. This is the process that racial networks may be structured by as purported by the RFOs.

To conclude the discussion of research question three; RFOs are faced with an industry which is being overtaken by brokers and their business model is becoming obsolete. Brokerage is growing within the industry and with it the expectation of participation in morally corrupt performance of rents by the RFOs. Government regulation is lacking and the DSBD funding intervention will likely come too late for most of the current RFOs.

6.5 Discussion of Research Question Four

From a tie strength perspective; what is the appropriate level of strength of ties that result in access to sustainable business opportunities for SMME RFOs?

This question sought to establish whether the more profitable opportunities come from established network relationships or fleeting relationships. Social media platforms are discussed as an interesting avenue for management of large networks and the question is how much do they affect the processes of networks due to their far-reaching and instant access to members and information. Another discussion point was how social media platforms affect the established rules of open and closed networks.

Access to funding and access to the market are two contributing factors to SMME RFOs failure (FinMark Trust, 2020). Networks can offer solutions for both factors, however what has been revealed through this study is that there is a trend of structural holes being created in key areas of the market to prevent buyer-seller network formations. The value of the information that gives access to those two factors raises classic gaudens behaviour in the structural hole brokers who cultivate and maintain the structural holes so that they can maintain the dominant power position and assure most of the benefits flow to them (Salvetat & Géraudel, 2012). A network of buyers and sellers pooling their volume to manage market demand risk can be achieved (Kranton & Minehart, 2001). In open networks those intentions must compete with the actions of the brokers who desire to create asymmetry in the market for their exploitation and gain (Kwon et al., 2020).

6.5.1 Strength of Ties Related to Business Opportunities

Opportunities from open networks mean business obtained from canvassing the market and soliciting opportunities from weak ties (Obstfeld et al., 2014). The alternative is canvassing for opportunities within closed networks which are characterised by long-standing relationships which limits the opportunities and information regarding them to the friendship circle forming the network. The issue with closed networks is redundancy which means ties could exist that have no valuable information, whereas the novelty of non-redundant ties is the value of the information they possess. Redundant ties offer less valuable information, but instead offer higher risk management and governance through higher levels of embeddedness of the network (Vanhaverbeke, 2012). What is common is that brokerage is common in both types of networks is that a broker is garner benefit actively or passively by maintaining a structural hole (Kwon et al., 2020). The third

brokerage orientation that was relevant to this research question is *tertius iungens* brokerage action that is concerned with building long term relationships for sustainable value generation within a closed network (Kent et al. 2016).

6.5.1.1 Closed Networks and Tertius iungens Business Opportunities Stream

The evidence provided by two participants was that they source most of their business exclusively from closed networks with strong ties and mentioned long-standing friendships of supportive industry friends and acquaintances who help each other. They did not trust brokers or strangers in the industry due to the risk of exploitation that introduces. *Tertius iungens* brokerage actions are concerned with keeping the circle tight so resources are not stretched too much and restrict the expansion of the network to preserve trust among members, collective identity and shared knowledge (Lammers et al., 2009). Strong network ties also provide insulation from the market as a negative consequence of being closed off to other networks and clusters which makes ease of access to novel information difficult and lowers the ability to access opportunities (Granovetter, 1983).

RFOs generally spent most of their time cultivating closed networks which common wisdom claims is the way to build sustainable business opportunities. “Networking” is synonymous with reconfiguring what would be resourceful open networks to closed networks through *tertius iungens* action (Burt, 1992). Reconfiguring open networks to closed networks changes a source of non-redundant information, a non-redundant tie into a redundant tie with homogenous information which lowers the productivity of the network leaving RFOs in a loop of seeking weak ties and unwittingly converting them into unproductive strong ties. RFOs cannot grow from such a model.

6.5.1.2 ESD and Nepotism Business Opportunities Stream

Tertius gaudens actors generate structural brokerage opportunities for themselves through corrupt activities by manipulating the information that is shared with the alters in the network by the act of creating information variance by tempering how and how much information is shared and when (Hahl et al., 2016). RFOs report the manipulation of ESD programmes that are meant to assist them through nepotism where a structural hole broker within a network creates information variance to assure that their preferred candidate was awarded a valuable opportunity. The example was made of ESD programme selection processes being manipulated for nepotism. The structural position of the broker presented them with information benefits that yielded distinct and competitive advantages for their chosen alter Salancik (1995). The structural hole broker kept the information received by all other

alters homogenous and provides novel information to their network member who then outperforms the rest of the participants. When executed fairly, ESD programmes provide RFOs with the best network scenario and no market saturation to deal with. Nepotism rids the industry of a potentially committed RFOs who may have stayed in the market and built a business that would assist meet the economic transformation goals of the NDP 2030 (DSBD, 2023).

6.5.2 Memberships and Associations for Business Opportunities

The response from the participants was almost unanimous that they did not subscribe to industry associations or any government affiliated formations except for one RFOs who was registered and has since deregistered due to negative experiences. A business association is meant to give a business owner insight into how the business runs and lower the cost of getting started by providing information that is proven to be effective in supporting the business instead of the business owner having to establish those things themselves (Bennett, 1998).

6.5.2.1 Negative Responses to Memberships and Associations

Additionally, to avoid any industry associations because they considered them to be useless, for-profit organisations that are there to collect subscriptions, the participants unanimously criticised the lack of active public institutions in the RFO industry which should be there to help the RFOs get established and develop sustainable businesses. The public institutions would represent weak ties within the industry where links could be made between RFOs and companies that require their services through structured partnership programmes facilitated by the public institutions. Of the two: access issues for RFOs of funding and markets, the government was only addressing funding which by their plan would leave capacitated RFOs with no secured customers to service. To complete the list of issues from the responses of the participants included lack of government regulation. Social capital theory forwards that individual level solutions to a social issue are not enough to resolve the structural nature of a problem (Coleman, 1988). Solving the funding problem for individual companies would not solve the structural access to market problem which seems to be driven by social network brokerage actions in the market.

6.5.2.2 Affirmative Response to Memberships and Associations

The one affirmative response to being affiliated with industry associations came from a participant who, having initially enjoyed the benefits of the insurance which paid for the overhead during the initial COVID-19 lockdowns which halted the RFO industry,

experienced their first law suit from the same organisation after he had stopped paying the monthly subscription due to the same lockdowns effect on his revenue. That RFOs had since vowed never to engage with any associations again. This example further illustrates the challenge faced by RFOs in the government institutional voids that exist in the industry and leave them exposed to such practices from private entities.

6.5.3 Use of Social Media Platforms as Social Network Platforms

This question exposed the structure and content of the social network brokerage that were maintained on social media platforms and how they contributed to the execution of brokerage processes and the reach and speed of information flows. Social network brokerage generates value by connecting disconnected alters to transform a dyadic structure into a triadic transaction which makes the role of the broker indispensable to network processes (Halevy et al., 2019). The participants in this study reported that social media platforms had made the process of forming and dissolving networks much quicker to execute and the reach meant there were as many potential network members as there are RFOs in a geography. This seems to have shifted the dominance further to the broker.

6.5.3.1 Informal Arrangements

The primary evidence from the interviews pointed to connection being more important than the social media platform that was used as a platform for the social network brokerage. A phone number was the link to the networks and brokers ran their networks in different ways with some more permanent networks based on social media platforms than others. One participant reported that the networks were transient and could be formed on any platform for the transaction and he did not consider them a social network.

6.5.3.2 Affirmative Social Media Platform Responses

All twelve participants confirmed that they were aware of the existence of broker networks that were hosted on social media platforms and most of the participants confirmed that they had participated in those broker networks at some point. The prevalence of the broker networks that were hosted on social media platforms seemed to be determined by commodity being hauled with mining products hauled on side tippers being the most common category brokerage hosted on social media platforms. There were many broker networks on different social media platforms like Facebook or Whatsapp groups and some were hosted on purpose-built platforms for hosting broker networks.

Social media platforms foster ease of migration of brokers between networks and clusters and make the collection of novel information from all the locations fluid which is an infrastructural representation of the migratory tendency of *tertius gaudens* brokers in operating in open networks to travel through networks collecting valuable brokerage information (Kwon et al., 2020). Brokers cultivate and maintain many structural holes simultaneously through social media platforms which support the entrepreneurial drive exhibited by brokers to traverse networks to collect economically valuable information from social networks (Salvetat & Géraudel, 2012).

Social media platforms are playing an increasingly important role in the administration of network brokerage and affect the speed of transmission of information and likely the amount of time networks exist. The implications of this for RFOs in the industry is further disempowerment versus the brokers who host networks on social media platforms. Regulation is required in the industry to protect RFOs market access for its sustainability.

6.5.4 Rules Governing Broker Networks Member Behaviours

The data collected in response to this question revealed that the rules that exist for members of networks did not apply to brokers in open networks. The rules applied primarily to closed networks with strong ties and trust being key to govern the spoken and unspoken rules easily. Behaviours that were counter to the implicit and explicit rules result in exclusion. There were specific rules which seemed to have emerged from experience, one of which was that the person who did the work gets the money, no matter who the customers have the primary relationship within the network. Another rule was that opportunities were shared exclusively within the network, and lastly that members did not steal loads from each other. The process to determine the rules and governance of the network was influenced by the members' positional embeddedness which determined the ability to acquire non-redundant information about members through their visibility and attractiveness. High positional embeddedness increases distribution centrality which is useful for affirming the rigid structures of the network even though not very useful for acquiring novel information (Gilsing et al., 2016). Positional embeddedness is also considered a network-level information source based on inference of capability, information, resources and access according to the individual's position within the network structure (Granovetter, 1992). This means RFOs can use it to set beneficial rules for themselves through optimal positional embeddedness.

6.5.4.1 Behaving Counter to The Rules

Quintane and Camabuci (2016) posit that unembedded brokerage actors may broker information from outside of the network and their circle of trust to form new ties and alternate closed networks which may betray the rules of the network they are in. RFOs reported that in open network scenarios it was typical for the customers to attempt to form a direct relationship with the RFO by cutting out the broker and contracting directly especially if they experienced good service. The action lowered the price for the customer which generated value for them. This action was a transformation of the structure of the network, turning a triad with a broker into a dyad consisting of the customer and the supplier. Kranton and Minehart (2001) accept that a buyer and a seller must have a link, which does not have to be a broker, to facilitate goods exchange.

The actions of the RFOs who transform the structure of the network by removing the broker and changing the triad into a dyad are *tertius gaudens* actions to benefit the RFOs in the short term (Halevy et al., 2019). A triad dies in the absence of a broker (Faist, 2014). RFOs could try to get themselves embedded once part of an open network as an alter and see if they can take over the direct relationship using a lower rate and better service (availability). However, the risk they face is exclusion from future such open networks. Another downside for RFOs is that they can only implement the transformation once with each broker and then they are no longer trusted and excluded. Such short-sighted actions by RFOs are necessary to sustain themselves within the industry and occur as a process of the market seeking the most cost-effective solution.

6.5.5 Conditions to be Met for Inclusion into Broker Networks

Commoditisation of an industry occurs in the late stages of market development when it approaches maturity as goods and services become commonly accessible and transferable to those of competitors which changes the basis of competitiveness within the market to price-based (Coe, 2021). The data from the study revealed that commoditisation of RFO services has occurred in the market, however RFOs were not aware of the shift and joined the industry expecting there to be other value drivers than price to decide the sale. There seemed to be an asymmetry between the actual conditions of the market and the expected conditions by RFOs as far as what the basis for competitiveness was. There was no unique value proposition that most RFOs could sell in the market that would significantly differentiate them from their competitors to warrant a higher price. The RFO industry is commoditised and the RFOs asset owners are instrumentalised to execute on the new broker-dominated

industry model. RFOs have not shifted their propositions with this reality of the industry and continue to reject their inclusion in broker-lead networks.

6.5.5.1 Nepotism as a Broker Network Inclusion Condition

Having spotted an opportunity through access to novel information, an actor within an organisation forms a closed network with a friend or family member and concludes an award through nepotism with himself as a beneficiary represented by their connection. This was a typical process given by different participants of how a broker generates advantage from themselves through access to privileged information. The RFOs reported being instrumentalised in the process by providing proof of assets to the customer with a promise of a contract being awarded and only for the contract to be awarded to a family member of the individual within that organisation. The process of opportunity spotting by the broker is akin to Burt's (1992) discussion of *tertius gaudens* actions in spotting opportunities for exploitation for self-gain. The interval individual who was brokering the contract and harvesting opportunities for themselves whenever they appear which is fitting of the archetype described by Soda et al. (2018) of a *tertius gaudens* actor. The implication for RFOs of such actions is that they were shut out of valuable opportunities for not aligning the structure of their organisations to the real conditions in the market. The industry has commoditised the RFO service and replaced RFOs with brokers.

6.5.5.2 Rents as a Broker Network Inclusion Condition

Purchasing embeddedness from an embedded structural hole broker Coleman's (1988) is a way of gaining access to valuable business opportunities. The access being exclusive, has an intrinsic value, especially in a market that has increasingly commoditised the service of the RFOs. Subscription to networks where opportunities are posted exclusively to network members in a tiered structure with higher subscriptions buying higher levels of access and connection to decision makers within buyer organisations are reported to be increasing. RFOs reported that the purchased subscription rarely lives up to the promise; what they seem to be supplied instead was a listing of opportunities that could not be guaranteed as valid or without any special access or novelty to the information provided. What the sellers of these subscription networks acted like are non-partisan mediators (Simmel, 1950). RFOs soon realised that there was not much value in the subscription and unsubscribe, but with the churn in the industry the subscription companies always have customers. The ramifications here are only for the desperate RFOs who continue to seek a value proposition that can sell in a commoditised market.

6.5.5.3 Race as a Broker Network Inclusion Condition

The RFOs suspected that some lucrative networks include race as a condition of membership, which they claim generally excludes black people due to the race being relatively new to economic activity in the country and not having amassed capital and tenure to form a foundation that can sustainably hold blacks-only networks within the industry as an alternate to the other networks. Two participants shared that it was difficult to maintain a blacks-only network and they claim that it was due to a lack of unity among them. Bushe (2019) gives insights that the reasons some of these racially based formations fail may be socio-cultural with tenure of black people in network structured markets being short and not having developed to include the actions of brokerage as part of transactional processes. The reality of the industry for RFOs is that some networks are closed off by parameters that RFOs cannot easily overcome like race, due partly to racial homophily (Ferguson, 2017). This means that there is a chunk of revenue that is not accessible equitably to RFOs which means that the revenue meant to drive SMME sustainability is not enough to dedicate to developing networks as well and sustain their businesses hence the critical need for measures like the SMMEs and Cooperatives Funding Policy (DSBD, 2023) to support RFOs to affect their industry transformation.

6.5.5.4 Fronting as a Broker Network Inclusion Condition

Another condition of inclusion in broker networks that RFOs are called to fulfil is the supply of their transformation credentials to a consortium that is pursuing business opportunities especially in the private sector. RFOs were willing to engage in networks where they were a silent partner who was fronted as an owner in a business so they could secure themselves the RFO portion. This was claimed in the data that was reported and desperate RFOs were willing to engage in such networks. The literature, conditions and ramifications of this action reflect those in section 6.5.5.3 above.

6.5.6 Research Question Four Discussion Summary

Research question four revealed what the prevalent level of strength of network ties in the RFO industry that are required to obtain competitive advantage that drives business sustainability. Granovetter's (1973) strength of weak ties theory which refers to social ties as having combined dimensions of time, emotional intensity, intimacy and reciprocity was useful as a lens to interpret the data received from the research to make sense of tie-strength themes from the data. Likewise, the structural hole brokerage theory (Burt, 1992) was also useful to include the perspective of the

broker in the network brokerage context to explore how structure and behaviour of brokers relate to the level of strength of ties between network members. What emerged from the data is that there is no one preferred tie strength or one that is optimal to sourcing profitable business opportunities, however weak ties provide more opportunities, although not ideal for RFOs, are also more numerous. Corresponding to the literature on strong, intermediate and weak tie utility for securing business opportunities (Kim & Choi, 2018) it was clear that RFOs utilise the appropriate level of strength of ties on a spectrum to correspond to the level of desperation for business at the time.

RFOs proposed that much of the in securing business opportunities is due to the lack of regulation in the market which they claim prevents them from accessing funding. The RFOs espouse closed networks with *tertius iungens* brokerage for maintenance of a collective identity and shared knowledge (Lammers et al., 2009), however these networks are not profitable for them. Strong network ties also provide insulation from the market and prevent access opportunities (Granovetter, 1983). The RFOs are concerned with obtaining high levels of positional embeddedness within a closed network which is only as profitable as the opportunities provided by the network members (Gilsing et al., 2016). The RFOs continually consider brokers as the cause of the deterioration of the structure of their industry and fail to see brokers as part of the RFO industry structure.

The data proved that buying a truck to join the industry is unsustainable. RFO as a service is likely the way the industry will develop. RFOs continue to compete on service as a differentiator in the industry when the stage of maturity and interchangeable nature of the service dictates that price is the differentiator hence it favours low overhead business structure that are exhibited by brokers (Coe, 2021). Weak ties then prevail in the industry as the increase in number of participants in a network increases the novelty of outcomes and the opportunities for advantage for the brokers (Lammers et al., 2009). Social media platforms have emerged as an important avenue to increase participation in the broker networks as reach is extended and capacity is expanded further to the benefit of brokers through the spread of network capacity (Salvetat & Géraudel, 2012). The use of social media platforms may cement the commoditisation of the RFO industry through streamlining the processes of connecting alters, controlling and disseminating valuable information at the right time for brokers. The work of Kranton and Minehart (2001) on buyer-seller networks may give a glimpse into a future where networks of sellers and

buyers connect over social media platforms to negate the need for brokers as a value proposition that benefits them.

If racial networks are prevalent in the market then black RFOs who claim to be excluded based on race have further difficulty in accessing the market and cannot fund the sustaining of their own networks without capital. An additional aspect of the challenge is that black RFOs may not be tenured enough to function adequately form and maintain social network brokerage as a business model (Bushe, 2019).

6.7 Conclusion

This chapter presented a discussion of the results of this study. It was discovered that all the participants were aware of the concepts of social networks and brokerage as key processes in business development. Some participants could draw a distinction between closed and open networks based on types of structure and the closeness of the relationships with network partners, however most participants only considered themselves as part of closed networks and did not hold open networks in high regard and only sought them out when necessary. Network structure is only required to consist of contacts, content, and behaviours therefore knowledge of participation in networks by the participants does not negate the existence of a network (Soda et al., 2021). A dyadic relationship between buyers and sellers' functions by pooling demand to manage market fluctuations (Kranton & Minehart, 2001) must be separated by a social network broker who creates, cultivates and maintains a structural hole between the now separated non-redundant members (Simmel, 1950). This is a fundamental structural foundation for brokerage behaviour to prevail. The RFO industry offers numerous opportunities for open networks to be established and exploited by a growing number of brokers at the detriment of traditional RFOs.

With the context of the market understood by RFOs to still be based on value propositions other than price, the RFOs experience challenges in securing sustainable sources of business due mostly to their attitude towards brokers. RFOs generally prefer the safety of closed networks with trusted friends rather than the risk associated with the open market, however the opportunities that exist within their closed networks are limited to the sum of opportunities as can be generated internally. Strong ties presented challenges to business development like information homogeneity which limits the amount of business opportunities that RFOs are exposed to (Lammers et al., 2009). The strength of weak ties theory (Granovetter, 1973) refers to social ties as having combined dimensions of time, emotional

intensity, intimacy and reciprocity. The general orientation of RFOs away from brokers means they insulated themselves from most of the market opportunities as the brokers monopolised them through their lower price offering to customers.

A fundamental debate regarding social network brokerage theory is whether the structure of the networks is enough to determine brokerage (Simmel, 1950; Burt, 1992; Burt et al. 2013) or whether the behaviours of the broker are essential to conclude the brokerage process (Obstfeld, 2005; Obstfeld, et al., 2014; Soda; Kwon et al., 2020). Another consideration is the effect of market dynamism asymmetry which can also adversely affect the ability of businesses to time and align their offering to the needs of the market (Pooe, 2016). What emerged from the study is that both structural and behavioural elements were key to complete the brokerage process and the application of each element depends on the conditions in the market which were influenced by the market dynamism. However, in practice it was the actions of the broker that most determined the outcomes of the brokerage process for RFOs, especially because they were not in most networks leading the process and occupying the dominant power positions. *Tertius gaudens* brokers were the most prevalent in open and closed networks followed by *tertius iungens* brokers within closed networks and *divide et impera* agents to a much lesser extent.

The fundamental flaw in the RFOs business development seemed to be that they were based on a dated business model which the market had left behind. Large traditional RFOs had shed their physical assets and utilise leased fleet to execute all their contracts, however SMME RFOs entering the market routinely purchase a truck with cash before securing any business. Kent et al. (2016) identified the instrumentalisation of alters in the social network analysis's review of social networks as a fundamental flaw along with how power is treated through the analysis. However, the results of this study reveal the contrary in that brokers in the RFO industry instrumentalise the RFOs to execute business transactions efficiently and cost effectively. The reason why this counter theory is proven in industry is that the market, including brokers, has commoditised RFO in what is now a mature, late stage industry and RFOs are still trying to compete on an outdated value proposition (Coe, 2021).

Transformation emerged as a theme in this study as most of the SMME RFOs belonged to the previously disadvantaged ethnic groups in South Africa and the work of economic transformation, which is meant to spearheaded by SMMEs in general, makes the consideration of transformation issues relevant to this study. The outcomes of the study of networks as they relate to transformation issues revealed

that race played a role in network processes and that structural challenges like access to capital and markets were still not resolved for SMME RFOs. The most desirable network structure for SMME RFOs was proven to be under an ESD programme, which although primarily benefits the organisation that runs it, also offers insulation from the market which made SMME RFOs competitive. However, there were instances of exploitation of SMME RFOs on race grounds for access to business opportunities which are still prevalent due to low number of opportunities for RFOs. Privileged information gives first mover advantage (Posner, 2010). This allows an actor to establish a network according to their maximum benefit which is an instrument used to maintain traditional network structures. The intervention institutions like the DSBD in implementing the revised NDP 2030 along with the SMMEs and Cooperatives Funding Policy may come too late for RFOs in the RFO industry, but the structural hole brokerage networks will remain.

Chapter: 7. Conclusion

7.1 Introduction

This study aimed to build on the literature on social network brokerage structures and processes by exploring their prevalence in the RFO industry in South Africa in general which affect the ability of SMME RFOs to access sustainable business opportunities. The research aimed to discover what structure and behaviours of social network brokerage are prevalent in the RFO industry and what participants must do to be included. As discussed in the literature review, the fundamental theoretical considerations of social network brokerage literature are whether the structure alone determines the brokerage process in a network (Simmel, 1950; Burt, 1992; Burt et al. 2013) or whether it is a combination of structure and broker behaviour (Obstfeld, 2005; Obstfeld, et al., 2014; Soda; Kwon et al., 2020) which together contributes to gaining competitive advantage in the market. The context of the study being the RFO industry which has a prevalence of broker activity, was accurate to conduct the research upon and utilising a sample of SMME RFOs was useful as that sector is crucial to delivering economic transformation according to the South Africa's NDP (DSBD, 2023). Value creation in a priority market that is run primarily by brokers is an important area consideration because brokers are not seen as value adding and a solution of dyadic networks of just buyers and sellers is possible with some intervention (Kranton & Minehart, 2001). Ultimately the combination of the industry structure, market maturity and the actions of brokers presenting *tertius gaudens*, *tertius iungens* and *divide et impera* behaviour is what determines the processes available to RFOs for acquiring sustainable business opportunities.

This chapter is a conclusion of this research paper and presents a summary of the principle research findings and their implications for the stakeholders in the market and for the main theories that have been examined. The research paper concludes with a consideration of the limitations of this study and a proposal of areas for future research.

7.2 Principal Findings

The research problem that was set out in chapter one sought to establish what social network brokerage processes and behaviours are prevalent in the RFO industry and this exploratory study has successfully answered the research problem. The main finding of the study can be organised into three broad categories. Firstly, the structure of the networks prevalent in the industry does impact the ability of RFOs to access

sustainable business opportunities which supports the foundational theory of social network brokerage (Simmel, 1950; Burt, 1992; Burt et al. 2013). Secondly, social network brokerage behaviours determine how benefits are gained and distributed within the brokerage networks (Obstfeld, 2005; Obstfeld, et al., 2014; Soda; Kwon et al., 2020). Finally, it emerged that RFOs are coming to market with a traditional and outdated business model that does not apply to the current RFO industry, which is in the late stage of maturity, resulting in the commoditisation of RFO and the instrumentalisation of RFOs (Kent et al., 2016).

7.2.1 Social Network Brokerage Structure

The conditions of the RFO industry establish the type of social network brokerage structure that emerges from it. Where the opportunities are located and what a RFO does to access them is structural and defines the process. The structure of the industry separates network members with non-redundant relationships and requires a connection to be made for the network to be complete and transactions to occur Simmel (1950). This means that brokerage is necessary to network process and therefore indispensable to the industry. The conditions in the industry warrant an actor to make a connection otherwise there will not be a business transaction taking place. The argument that gives primacy to the structural perspective of brokerage is its promotion of the network position of the actor relative to the alters, which is a structural condition, and the one that gives dominant power position to the actor and sole control of the information and other resources in the network (Grosser et al., 2019). By the structure of the RFO industry in South Africa and the profile of categories of products being hauled being mostly commodities, brokerage is in the primacy as a transactional process.

Kranton and Minehart (2001) propose a dyad structure where buyers and sellers form direct relationships in their network, however a dyad structure assumes that information asymmetry can be overcome by demand market forces and will result in the price matching the demand. However, in a market with market information asymmetry that is structured like the RFO industry, a third party who is an actor is responsible for resolving information asymmetry is required to establish the conditions of the sale and additionally generate some benefit for themselves as a rent for their work (Soda et al., 2018). Unwittingly, the RFOs desire for social network structural security that is found in closed networks is such that it drives them to kill triadic networks by connecting directly with the customer and securing a contract (Lammers et al., 2009). This action terminates their participation in future business

opportunities with that broker and their network and clusters which essentially isolates them from the novel information and opportunities.

The structure of the network is critical in its orientation to the environment outside the immediate network and where opportunities are sourced. RFOs prefer closed networks with strong ties and hold them in high regard for the trust, ease of governance, reputation, cultural alignment and security they offer (Burt et al., 2013). However, they produce information homogeneity in the logic structures, stagnation of opportunities and isolation from the market (Soda et al., 2021). Structural embeddedness is an important aspect of network structure as an indicator of the effectiveness of the network, because social cohesion decreases as social networks disintegrate. This tends to happen as opportunities get scarce and is shown by structural embeddedness becoming weaker. Open network structures with weak ties, on the other hand, present numerous more opportunities due to the novelty of information provided by connections in open networks and connections through them to other networks and clusters (Kim & Choi, 2018). RFOs however, have a generally negative orientation to open networks due in part to low trust in them, their transient nature and the effect of past experiences with exploitation by brokers. Unembeddedness allows the brokers and the actors in the market to access crucial information to sustain their interests (Quintane & Camabuci, 2016). This is the most profitable orientation in the RFO industry and must be embraced by the RFOs for them to be sustainable.

7.2.2 Social Network Brokerage Behaviours and Processes

Contemporary social network brokerage theory has been extended by scholars like Obstfeld et al. (2014) to include behaviours and actions of brokers as a determinant to the brokerage outcomes adding the inclusion of a broker in open network structure result in the opportunistic beneficiation of the broker above the alters. Brokers have obtained a negative image due to the promotion of self-interest and the utilisation of what is considered unethical behaviour to meet their objectives (Borgatti & Halgin, 2011). The relationships and transaction processes among actors in a network are the true sources of unethical behaviour because it is a societal incident incumbent upon relationships between willing participants in a network with a societal structure (Brass et al., 1998). The negative image of brokers in the RFO industry is cemented by their operating in open networks and utilising RFOs assets primarily for their benefit. The image is supported by the fleeting nature of the engagements with them and being exceedingly profitable versus the low-level of overhead that they carry.

However, regardless of the image that RFOs have of brokers, a late stage market would be inefficient without brokers.

Closed networks with string ties, where RFOs like to operate from, are characterised by brokerage action which benefits the whole network. Social capital is derived from those brokerage behaviours from the forming of social bonds through patterns of exchange that are expected from network members to accrue trust, reciprocation and benefits (Liljenberg, 2005). Brokerage actions of *tertius iungens*, *tertius gaudens* and *divide et impera*, are applicable to closed networks, however in open networks the value derived from the behaviours is generally elevated except for the *tertius iungens* due to its service orientation towards others versus the self-interest orientation that is supported by open networks with weak ties Granovetter (1973). RFOs cannot succeed in the open market with a *tertius iungens*, closed network orientation towards brokers who are the sources of most of the business opportunities in the market. RFOs constantly stated their disdain for brokers who are the sources of business opportunities that they need.

This study has revealed that social network brokerage behaviours are on a spectrum ranging from RFOs who act as *tertius gaudens* who monopolise on all the available opportunities at the expense of all other participants in the network, to RFOs who act as *tertius iungens* to obtain opportunities to benefit their whole network, and to RFOs who act as *divide et impera* agents who sow discord to create and then maintain structural holes for their future benefits. Transacting on business opportunities relies on *tertius gaudens* assembling the triad network, separating the alters and creating the competitive conditions that benefit them (Kent et al., 2016). RFOs report exhibiting this behaviour briefly when opportunities arise, but revert to their operations posture in closed networks. RFOs utilise privileged information to create brokerage scenarios and extract benefits from themselves but do not recognise themselves as brokers in that scenario (Lammers et al., 2009). There appears to be a cognitive barrier between their behaviours and their identity that is limiting their businesses to an old model which seems destined to ultimately fail. It is telling that the only successful brokerage scenarios for RFOs are reported to be the ESD programmes that shield the RFOs from the market which they are meant to be incubated to return to, but it typically results in failure needing further interventions like the SMMEs and Cooperatives Funding Policy (DSBD, 2023) to help support them when they return to the market.

7.2.3 Instrumentalisation and commoditisation of RFO

The business model design that RFOs still attempt to access the market with is dated and no longer congruent to the realities of the market. It would be speculative to say that there is a cultural motivation that drives SMME RFOs to consider asset ownership a point of pride. It is more likely that they are following what they have understood to be the industry standard, because how can you be in RFO without a fleet? The primary concern of new entrants is buying a vehicle. The RFOs then go on to employ flexible equipment solutions for their trailers including leasing trailers long and short term, but the option does not extend to the truck which is a major differentiator between them being operators and brokers. The RFO industry has moved away from an asset-structured to one where the movement of freight from one point to another is a service which is a phenomenon that has contributed to the commoditisation of RFO. The market is at a late stage of industry maturity and RFOs are still trying to compete on the dated value proposition that is no longer valid for competitive advantage (Coe, 2021).

Social network brokerage and the advance in social media platforms which drive down the price of integrating many networks and clusters under one profile has accelerated the instrumentalisation of RFOs in the industry. It is the instrumentalisation of alters in social networks that is the main critique of social network analysis by Kent et al. (2016) that has been proven in this study as the action that is cementing the transformation of the RFO industry in South Africa to a commodity service run by brokers. Social media platforms aggregate the effect of social network brokerage structure to extend the benefits that can be derived from brokerage action. RFOs have not progressed towards the new digital business environment and have sought to repeat the traditional business model which is proving unsuccessful. The RFOs are not considering the dynamic nature of the market in how they structure their businesses and therefore are not flexible to meet the market where it is. Market dynamism asymmetry adversely affects the ability of businesses to align their offering to the needs of the market at the right time to get the maximum benefit from their offer (Pooe, 2016). This is another advantage of brokers whose business model is built on servicing dynamic demand.

Social capital theory challenges the interventions at individual level that are meant to transform the conditions of communities to address inequality (Coleman, 1988). The DSBD's SMMEs and Cooperatives Funding Policy (DSBD, 2023) to address the USD30 billion gap in entrepreneur funding that is facing South Africa are welcome. However, the intervention targets individual entrepreneur needs in accessing

business funding and does not address the structural challenges that face SMMEs like the structure of certain industries that promote the benefit of individuals who are brokers, as is the example in this study, over the needs of the entrepreneurs they are funding. Without addressing the structure of the industry SMMEs will continue to fail within the industry because the funding only addresses one of two elements affecting them, the other being access to markets which has been established in this study will not be addressed by extra funding (FinMark Trust, 2020).

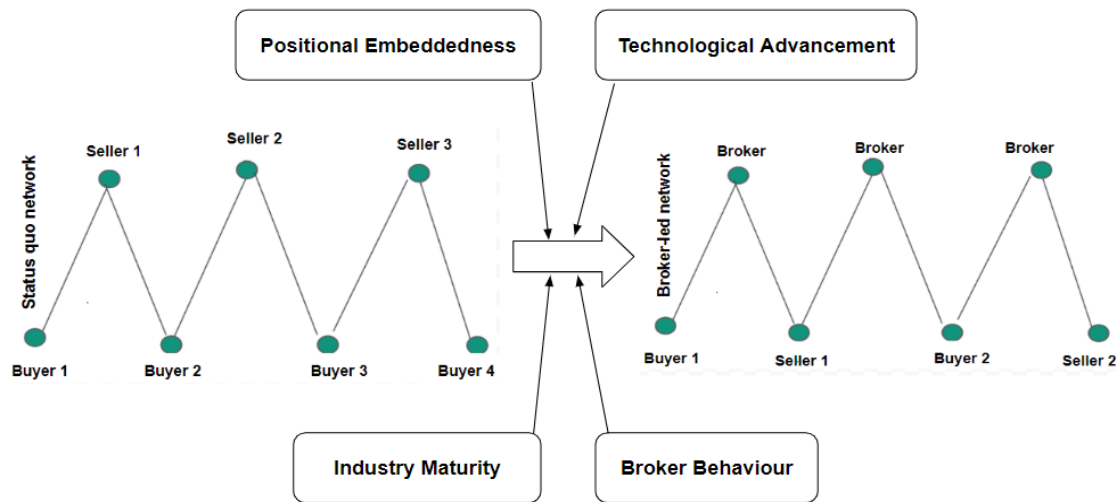
7.3 Proposed Framework

This section presents a proposed business model transformation framework which illustrates the actions and processes that are prevalent in the RFO industry in South Africa resulting in the transformation of the optimal business model in the market and the incongruence of the RFOs business models with the market requirements.

Generalisability has been mentioned as a potential limitation of this study, however when considering the generalisability that is specific to this study, the inclination would be to accept the results and the proposed framework as generalisable. The research design did not allow for statistical generalisability to be reached, conceptual and theoretical generalisability may be the specific considerations for this study, however theoretical generalisability is an atypical defence for scholarly research due to it requiring specific conditions to run the research under for the results to be generalisable. This study is considered conceptually generalisable to affirm that the results which are conceptually generalisable (Varpio et al., 2021).

The proposed RFO buyer-seller network transformation framework is a model that depicts the transformation of the network structure of the relationships between buyers and sellers in the market and is based on the buyer-seller model presented by Watts (2016) to demonstrate buyer-seller relationships in a market without brokers which is an extension of Kranton and Minehart's (2001) model. The model is enhanced with parameters that have been discovered through this research that have influenced the transformation of the industry from a buyer-seller network to a structural hole brokerage network (Burt, 1992).

Figure 5 RFO Buyer-Seller Network Transformation Framework (Watts, 2016)



The RFO buyer-seller network transformation framework begins with a buyer-seller network where the participants, who are the buyers and the sellers, pool their demand to protect themselves against market demand fluctuations and price is controlled through the supply-demand process (Kranton & Minehart, 2001). Through this research it has been discovered that the inputs that have resulted in the transformation of the network to insert brokerage as a form of completing transactions and controlling price and supply. The status quo network is a dyad where the buyers and sellers are connected directly and there is no need for a broker.

The results of the research exposed four elements that have influenced the transformation of the network into a triad with a central actor who controls information and benefit flow primarily for their advantage who is a broker that connects alters with non-redundant information to each other to complete a network. Positional embeddedness, technological advancement, broker behaviour and industry maturity are the inputs that have resulted in the transformation of the market supported by a business environment that supports social network brokerage as it matured.

The list of influential elements, although not exhaustive, is an indication of effect of the change in the environment on the market process:

- **Positional embeddedness** has been changed by the network transforming to position the sellers a distance away from the buyers which has made the seller an outside in an open network by the structure of the market. The change is caused by the saturation of supply, the commoditisation of the service and the shift in value perception from the customer point of view from service quality to price.

- **Technological advancement** has affected the market by expanding the access of both buyers and sellers to each other which has given more options to buyers and decreased the price of benchmarking for quick decision making. Brokers have incorporated technology to expand their reach and build bigger networks with higher levels of competition to derive more advantage and control for their benefit through better price.
- **Broker behaviour** has been an essential part of the transformation as brokers have lowered the price of the service by pooling demand of many customers and increasing the supplier pool to expose demand-supply opportunities. Technology has been a beneficial tool to communicate opportunities and allow quick action on available opportunities.
- **Industry maturity** has caused the proliferation of suppliers as the barriers to entry are lowered for more citizens as they access personal capital and apply it to their entrepreneurial ventures, a common one being RFO which has contributed to the saturation of the market and increased opportunities for price decrease for the services.

The resultant effect of these processes is the transformation of the required business model to serve the market. In the status quo model, the prevalence of direct relationships meant the value proposition was based on trust and service with customers wanting to know what the assets owned by the supplier are and how their products would be handled as a differentiator of service. In the broker-led network structure the differentiator is almost exclusively the price of the service which means that the service to seek out and offer the best price for the correct trailer is the new service differentiator.

The RFOs in the industry need to transform their business models to fit the new market's requirements. The owning of assets is going to continue to affect competitiveness negatively due to the overhead burden of physical assets. The industry is heading in the direction of the equipment being a service and the scheduling being the main business which is the space that brokers are in who already provide mobility as a service (MaaS) which increases the efficiency of the transportation industry (Le Pira et al., 2021).

Besides the framework being proven effective by the proliferation of brokers within the market who can thrive in this market, large RFOs users started a long time ago by using third party logistics to reduce the cost of fleet on the balance sheet, some large RFOs have successfully defleeted in the past decade and are essentially a

brokerage firm who lease all their fleet from subcontractors and original equipment manufacturers (OEM) who offer lease deals for fleet (MAN Finance, n.d.). Essentially the RFOs cannot compete on balance sheets with brokerage companies with no assets, therefore, must change to fit the new market requirements.

7.4 Implications for Stakeholders

This research has exposed fundamental challenges that RFOs have in continually accessing opportunities and financially maintaining their businesses in a market that has moved away from their business model design and is now dominated by brokers. Along with utilising the RFO network industry transformation model to inform RFOs of how the market is changing to help them adjust their business model, there are further insights provided by the research for the wider stakeholder group:

- The study revealed that the type of network structure preferred by RFOs being closed networks with strong ties does not correlate with the industry conditions. Therefore, RFOs need to adjust their network structure to incorporate more open networks and weak ties to generate business opportunities. They also need to abandon the notion that being a RFO means owning a fleet as the level of maturity of the industry requires a flexible demand responsiveness capability and low overheads.
- The study also revealed that corruption is rampant in the industry and growing, however RFOs conflate criminality with brokerage behaviour that they consider morally reprehensible, but is not illegal. It is important for RFOs to delimitate the two and learn how to deal with criminal elements separately and adjust to the expectation of performance of rents for the new industry that is run predominantly by brokers to obtain business opportunities.
- The study did not reveal that RFOs were concerned with changes in technology and catching up to the brokers in the use of technology. Government institutions also do not have stated plans to resolve this issue in their considerations of the fourth industrial revolution which is currently not part of the DSBD's plans (DSDB, 2023). Both considerations will adversely affect the ability of RFOs to participate in the industry in the future even more and should be addressed urgently.
- The DSDD's plan addresses one of the two main problems for RFOs and neglects addressing access to markets. Their plan is also outdated and does not consider brokerage as a respectable part of the value chain for the sector. There is a general lack of regulation and enforcement of regulations which

promotes general lawlessness in the industry. Infrastructure is crumbling and RFO is meant to be the solution for that, but RFOs are ill equipped to respond.

- Although more prevalent in the haulage of commodities, brokerage is growing in the industry and all customers need to consider the effect of brokerage and subcontracting on the biosecurity of their products and risk of theft and pilferage. The prevalence of brokerage adds distance between customers and products quality control in transit.
- The study reveals that brokers have a dominant role in shaping the future of the RFO industry. They need to embrace the leader role in industry development and invest in establishing credibility in the practice to obtain trust and legitimacy.

7.5 Limitations

Although the generalisability of the results of this study in other contexts may be limited by the fact that it was an exploratory study that focussed on a geography with specific categories of commodities that may affect the behaviours of the participants within it, valuable insights were gained from it. The potential limitations of it are listed below:

- The sample size may limit the study results as not being entirely representative of a whole industry
- Cross sectional study may not be representative of the population
- The experiences of the RFOs are subjective and that may include bias in the results as they seek to tell their side of the story only
- The study included a majority of the sample being RFOs and perhaps including more customers and brokers would enhance the validity of the outcomes
- The generalisability of the results of the study is limited by the sample size although saturation was reached perhaps a bigger sample may have included more themes

7.6 Suggestions for future research

In conducting this study, the researcher could not find much literature on the effect of social media platforms on the management of social network brokerage platforms which is important because the effectivity of the brokerage network includes the consideration of reach and volume of participants in a network which can all be increased by social network platforms which also decrease the cost of maintaining

the networks through digital media. The following are the suggestion for future research:

- The effect of social media platforms on the social network brokerage processes is the next logical step in this line of research. As social media networks and platforms become more prevalent and people continue to engage and now transact on them, it would be interesting to establish how those developments are shaping social network brokerage processes.
- The cultural impact of the previously disadvantaged communities and their attitude towards asset ownership would be interesting to study. Fleet is spoken of with the same pride as ownership of cattle and it would be interesting to study the effect of ownership on the RFOs business model design and what that impact will be on their future sustainability.
- A study of RFOs who have successfully navigated their way from SMMEs to large RFOs through within the environment would be impactful to elucidate how they managed their success and which parts of the support structures, if any, was useful to assure they overcame the challenges of market and funding access.
- A focussed study of the business models prevalent in the market and how they are executed with social network brokerage conditions would be interesting to assist RFOs design relevant business models for the market they are in to create competitive advantage
- Research on how to extend ESD programmes from activities within a single organisation to supportive ecosystems within a market to aid SMME RFOs survive past the critical initial five-year period which determines their sustainability for the future.

7.7 Conclusion

This a deductive qualitative research has extended on the insights into social network brokerage effects on markets and how they affect competitive advantage, specifically on the RFO industry in SA, and given interesting future opportunities for research to extend the field further. Rich qualitative data insights were generated through semi-structured interviews with twelve RFO stakeholders. The research revealed the nature of the structure of social networks prevalent in the market, the behavioural aspect of brokerage, the challenges and implications for RFOs for the future sustainability of their organisations and the difficulties that government is faced with in matching their interventions to RFOs needs in the sector. RFOs were exposed as intransigent to changing their orientation to broker networks and business models to

match market requirements. Brokers were shown to act congruent to theoretical expectations. Customers likewise act in their best interest as determined by supply and demand conditions. And government was proven to be inadequate regarding capacitating SMMEs for the nature of the market. Finally, a framework emerged combining structural and behavioural network brokerage perspectives from the academic significance of the study to assist RFOs and the government visualise the gap between the current SMME RFO business model and the one that has been implemented by the market which they need to transform.

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Appendix 1: Informed Consent Letter

Good Day,

I am currently a student at the University of Pretoria's Gordon Institute of Business Science and completing my research in partial fulfilment of an MBA.

I am conducting research on Network hole brokerage prevalent in SMME RFO operations in KwaZulu-Natal. Our interview is expected to last about an hour and will help us understand how networks influence the ability of SMME RFO operators' ability to secure sustainable business opportunities. Your participation is voluntary, and you can withdraw at any time without penalty. All data will be reported without identifiers. If you have any concerns, please contact my supervisor or me. Our details are provided below.

Researcher name: Kept blank for anonymity **Research Supervisor Name:**

Email:

Email:

Phone:

Phone:

Signature of participant: _____

Date: _____

Signature of Researcher: _____

Date: _____

Appendix 2: Interview Guide - Adapted from: Mangalmurti (2019)

1. Demographic information

- 1.1. What are your personal details: age, gender, education, other qualifications, work experience?
- 1.2. When did you start your RFO business (registration date)?
- 1.3. Is RFO your primary income?
- 1.4. Are you the sole owner of your business or are there other investors?
- 1.5. What was your initial investment & how was it funded (debt, equity, combination)?
- 1.6. What constraints did you face in starting your business?

2. Contextual Questions

- 2.1. Why did you choose tautliner/flatdeck/tanker RFO?
- 2.2. How many people do you employ (drivers, other personnel)
- 2.3. How many employees are permanent, part-time?
- 2.4. In the past 5 years have you increased or decreased the number of people you employ?
- 2.5. How many trucks do you have?
- 2.6. Are the trucks leased or financed?

3. Entrepreneurial Questions

- 3.1. Do you have access to finance and credit or do you fund your own business?
- 3.2. What kind of support do you receive from the government (financial, business, regulations, administrative)? Is it adequate?
- 3.3. What other role can the national government play in your day to day operations?
- 3.4. Do you belong to any RFO organisations or associations? If so, why?

4. Question for Business Development:

- 4.1. Operational Challenges? (access to more business opportunities, more business from the same customers, more consistent & sustainable business):
 - 4.1.1. Factors inhibiting growth
 - 4.1.2. Factors inhibiting profitability
 - 4.1.3. Factors that would help in growth of your company
 - 4.1.4. Factors that help grow the profitability of your company?
- 4.2. What two things (context is networks) do you need more of to help you grow (access to connections that provide more business opportunities etc.)
- 4.3. Do you have a mentor that you can go to for guidance and support?
- 4.4. How do you see the business in 5-10 years' time?
- 4.5. Are you helping other hauliers like you access business?

- 4.6. How do you obtain new business? From tenders, connections or old business
- 4.7. Are there groups/connections who you know that offer business opportunities
- 4.8. Do you use brokers?
- 4.9. Are there any informal brokers you know?
- 4.10. Have you had to pay to get business opportunities?
- 4.11. Are the sources of business close friends or acquaintances or people you don't know?
- 4.12. How do you show appreciation after someone has arranged business for you?
- 4.13. Does the person who arranged business for you say how they want to be thanked?
- 4.14. Are there any Whatsapp groups you belong to for sharing opportunities?
- 4.15. What do you have to do to be a member of these groups?
- 4.16. What are the rules governing these Whatsapp groups?
- 4.17. How would you describe the relationship with the hauliers you share new business opportunities with?

5. Likert Scale Questions (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree)

- 5.1. I primarily rely on a strong network for new business opportunities
- 5.2. I can get new business opportunities without having to pay for them
- 5.3. I have reliable access to information about new business opportunities
- 5.4. I am satisfied with the network business sourcing approach
- 5.5. I feel confident my business will grow in the future

Appendix 3: Consistency Matrix

RESEARCH QUESTIONS	LITERATURE REVIEW	DATA COLLECTION TOOL	ANALYSIS
What form is the social network brokerage structure for SMME RFOs?	Simmel, 1950; Granovetter, 198; Coleman, 1988; Burt, 1992; Liljenberg, 2005; Soda et al., 2021	Questions 4.14, 4.9, 4.6, 5.1 & 5.3 of the interview guide	Content analysis on open ended questions to obtain descriptions of structures plus one Likert Scale question to rank order of types of structures
From a behavioural social network brokerage perspective, what is the profile of the typical network hole brokers active in brokering access to business opportunities for SMME RFOs?	Faist, 2014 Obstfeld et al., 2014 Kent et al., 2016 Kwon et al., 2020	Questions 4.17, 4.3, 4.5 & 4.8 of the interview guide	Content analysis on open ended questions to obtain descriptions of different profiles of brokers
What conditions do SMME RFOs need to meet to participate in the lucrative networks?	Coleman, 1988; Liljenberg, 2005; Burt et al. 2013; Quintane & Camabuci, 2016; Kim & Choi, 2018	Questions 4.12, 4.13, 4.10 & 5.4 of the interview guide	Content analysis on open ended questions to obtain descriptions of conditions plus one Likert Scale question to rank order of conditions
From a tie strength perspective, what is the appropriate level of strength of ties that result in access to sustainable business opportunities?	Granovetter, 1973; 1983; Kranton & Minehart, 2001; Lammers et al., 2009; Vanhaverbeke, 2012; Kwon et al., 2020	Questions 4.11, 3.4, 4.14, 4.16 & 4.15 of the interview guide	Content analysis on open ended questions to obtain descriptions of different types of ties

Appendix 4: Atlas.TI Codebook

Individual Codes

Access to Information	Low profit
Adaptation	Market access
Adversity	Mediator
Affiliation	Mentorship
Afrikaaners & Indians have good networks of mechanics	Minerals
Ambiguity	Multiple Streams of Income
Assets	Nepotism
Avoids brokers	Network brokerage
B-BBEE	Networking
Bakkies	No brokers allowed
Bank	No mentor
Bank loan	Not mentoring anyone
Big Hauliers	Online communities
Biggest Broker	OPEX
Black Industrialisation is a Myth	Opportunities
Bribery	Ownership
Broker	Payment terms
Brokerage	Procurement
Bureaucracy	Profitability
Business	Purchase Trailer
Business access	Purchase Truck
CAPEX	Quality control
Career Experience	Racial Bias
Collaboration	Racial Networks
Commoditisation of Haulage	Reciprocity
Connections	Regional
Contracts	Risk management
Corruption	RFO
COVID-19	RFO Association
Demographic Information	Scam
Diesel	Security Risk
Direct contract	Sharing
Discrimination	SMME
Entrepreneurship	Social connections
Equity	Social Development
Ethics	Social Network of friends
Finance	Soliciting
Fleet	Stealing from Other Network Members
Fly by night brokers	Strength of Weak Ties
Food Category	Subcontracting
Forced corruption participation	Supplier management
Foreign National	Supply and demand
Formal brokers	Surplus of suppliers
Freight	Tautliners
Friendship	Technology
Funding Issue	Tender
General	Threats of contract termination
Goal-oriented	Tiers of brokers
Government	Traffic Police Corruption
Gratitude	Transformation & CSI
	Unintentional brokers

<p>Growth Guaranteed return loads Helping others High Variable Cost Honorarium Implied bribe solicitation Indian Mechanics Industry trends Informal brokers Information access Infrastructure Void Institutional Void Labour brokers Local loads only Logistics Loose ties Lots of business available</p>	<p>Vehicle Financed Vehicle maintenance</p> <p>Code Groups</p> <p>Corruption COVID-19 Effects Demographics Entrepreneurship Finance Freight Operations Generic & Individual Codes Institutions & Government Likert Scale Questions Structural Hole Brokerage Racial Bias Strength of Weak Ties Transformation & ESD</p>
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